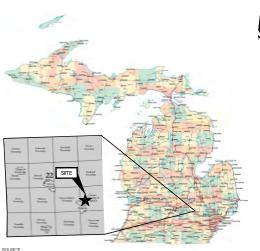
BRIAN JONCKHEERE

LIVINGSTON COUNTY DRAIN COMMISSIONER

BRIGHTON NO. 4 DRAIN IMPROVEMENTS

PART OF SECTIONS 8, 9, 16, & 17, BRIGHTON TWP, T2N, R6E LIVINGSTON COUNTY, MICHIGAN



SOURCE: STATE MAP: WWW.MICHIGANIMAP.ORG COUNTY MAP: WWW.MILIVCOUNTY.GOVIGISIMAP-GALLERY.

STATE AND LIVINGSTON COUNTY MAP



SITE LOCATION MAP

(NOT TO SCALE)

PREPARED BY:

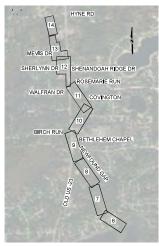
2300 E. GRAND RIVER AVE., STE 105 HOWELL, MI 48843 (517)-546-0040

PREPARED FOR:

LIVINGSTON COUNTY DRAIN COMMISSIONER GEI CONSULTANTS OF MICHIGAN, P.C. 401 S WASHINGTON SQUARE SUITE 103 LANSING, MI 48933 (517)803-4600







PLAN INDEX

SHEET INDEX

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DREI IMINIARY

				PRE	LIMINARY
					DWG. NO.
					01-G-01
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\vdash					SHEET NO.
0					1 OF 15
NO.	DATE	ISSUE/REVISION	APP		

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF GELOCANSULTANTS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF GELOCASULTANTS.

GEI PROJECT NO. 2000946

GENERAL NOTES

NO YJORK SHALL BE PERFORMED BEFORE 7:00 AM OR AFTER 7:00 PM MONDAY THROUGH FRIDAY. NO WORK SHALL HAPPEN ON SATURDAYS, SUNDAYS, OR INGHAM COUNTY HOLIDAYS UNLESS AUTHORIZED BY THE ENGINEER WITH AT LEAST 48 HOURS NOTICE PRICE.

CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO START OF CONSTRUCTION, CONSTRUCTION STAKING AND INSPECTION.

CONTRACTOR SHALL MAINTAIN ACCESS FOR MAIL DELIVERY AND GARBAGE PICKUP AT ALL PARCELS. IF THESE SERVICES CANNOT BE PERFORMED, THE CONTRACTOR IS RESPONSIBLE FOR TAKING THE NECESSARY MEASURES TO CARRY THEM

CONTRACTOR TO PROVIDE DUST CONTROL AND SWEEP ADJACENT ROADS DAILY, OR SEVERAL TIMES A DAY, SHOULD CONDITIONS REQUIRE.

EXCAVATED STOLES SHALL BE PLACED ON DESIGNATED STOCKPIES OF AN APPROVED UPLAND LOCATION. ALL EXCAVATED WATERIAN ON DESIGNATED FOR PLACE OF RESPONSIVE FOR PREVIOUS FOR ROSSIVE FOR PLACE OF RESPONSIVE MATERIALS ACCORDING TO LOCAL AND STATE REQUIREMENTS. THE DISPOSAL SITE MUST BE REPROVED BY THE PLACE.

LI WORK SHALL BE WITHIN DRAIN RIGHT-OF-WAY, WORK OUTSIDE RIGHT-OF-WAY MUST BE AGREED UPON BY LANDOWNER ND ENGINEER WITH A SIGNED LANDOWNER AGREEMENT PRIOR TO WORK ON THAT PROPERTY.

THE CONTRACTOR IS TO RESTORE INCIDENTAL DAMAGES ON THE PROJECT AS DIRECTED BY THE ENGINEER.

ALL DRAIN SIDE SLOPES SHALL BE 2H-1V OR FLATTER LINLESS SPECIFIED OTHERWISE

THE WORDS "RIGHT SIDE" OR "LEFT SIDE" IMPLY A REFERENCE TO THE DRAIN FACING UPSTREAM

CLEAR AND GRUB TREES AS INDICATED FOR CONSTRUCTION WITHIN DRAIN RIGHT-OF-WAY, REMOVE ALL TREES, STUMPS

REMOVE EXISTING FENCES, LANDSCAPING, AND OTHER STRUCTURES IN DRAIN RIGHT-OF-WAY AS INDICATED ON THE PLANS REMOVAL AND REINSTALLATION COST TO BE INCLUDED IN SITE CLEARING OR OTHER PAY ITEMS, PER CONTRACT DOCUMENTS.

CONTRACTOR SHALL COORDINATE REMOVAL OF ALL TREES WITHIN THE LIMITS OF CONSTRUCTION WITH THE ENGINEER

DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

UNDERGROUND LITLIFESMISS DIG.
FOR PROTECTION OF UNDERGROUND LITLIFES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-717 FOR 811 A MINIMUM OF THERE FULL WORRING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH SECANTION IN AREAS WHERE PUBLIC UTLIFES MAYE NOT BEEN PREVIOUSLY LOCKED, MEMBERS MILL THUS BER COUNNEY MOTHER IN THIS DESCRIPTION OF THE THIS DOES NOT RELEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTEYMOL UTLIFT OWNERS WHEN MY HOT BEE A PRAFT OF THE "THIS DIG. ALERT STSTEM."

THE EXISTING UTILITIES ON THESE DRAWINGS HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL PIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER AS TO WHERE POSSIBLE CONFLICT EXISTS.

ALL UTILITY POLES IMPACTED DURING CONSTRUCTION SHALL BE SUPPORTED IF NECESSARY, PER THE SPECIFICATIONS OF THE INDIVIDUAL UTILITY COMPANY.

ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED, PER REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANY.

PROPERTY OWNERS
PROPERTY OWNERS NAMES, WHERE SHOWN, ARE FOR INFORMATION ONLY AND THEIR ACCURACY IS NOT GUARANTEED.

PROPERTY CORNER MONUMENT VISIBILY OBSERVED ON SITE SHALL BE PROTECTED. DAMAGED PROPERTY CORNERS WILL

ADJUSTING MONUMENT BOXES

ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED IF ENCOUNTERED, WHETHER SHOWN OR NOT, IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES, AS REQUIRED.

TRAFFIC CONTROL
THE CONTROLT SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES AND IN ACCORDANCE TO THE TRAFFIC CONTROL PLAN AND NOTES IN CONSTRUCTION PLAN SET.

PERMITS
PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY THE APPROPRIATE AGENCIES, ANY REQUIRED PERMITS ARE LISTED IN THE CONTRACT DOCUMENTS, SECTION 01010-SUMMARY OF WORK.

CONSTRUCTION PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE PERMITTING AGENCIES.

MALBOXES
THE CONTRACTOR SHALL REMOVE AND TEMPORARILY RELOCATE ALL EXISTING MAIL BOXES AS NEEDED FOR CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE MAIL BOX RELOCATION WITH LANDOWNERS A MINIMUM OF ONE DAY IN ADVANCE

ALL TEMPORARILY RELOCATED MAIL BOXES, STREET AND TRAFFIC SIGNS ARE TO BE REINSTALLED TO ORIGINAL LOCATIONS AS CONSTRUCTION ALLOWS.

PAVED SURFACES - ROADS, DRIVEWAYS, PATHS, AND SIDEWALKS COORDINATE DRIVEWAY CLOSURES WITH LANDOWNERS A MINIMUM OF 48 HOURS IN ADVANCE.

ALL JOINTS AT INTERSECTION APPROACHES AND DRIVEWAYS SHALL BE SAWCUT WITH BUTT-JOINTS UNLESS OTHERWISE NOTED. THE COST IS TO BE INCLUDED IN UNIT PRICE FOR ROAD AND DRIVEWAY REPAIR.

FOR OPEN CUT PAVEMENT REMOVAL, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT FULL DEPTH PRIOR TO REMOVAL

ALL DRIVING SURFACES ARE TO BE RESTORED TO IN-KIND DEPTH AND MATERIAL UNLESS OTHERWISE SPECIFIED ON THE

PROTECT ALL BITUMINOUS ROADS NOT SPECIFIED TO BE REMOVED DURING CONSTRUCTION, REPAIR ANY UNAUTHORIZED

BROKEN CONCRETE AND DEBRIS SHALL BE CONSIDERED WASTE AND SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE. COST OF WORK CONSIDERED INCIDENTAL TO CONSTRUCTION.

MATCH EXISTING TYPE FOR CONCRETE CURB AND GUTTER RESTORATION

CONTRACTOR SHALL REMOVE ALL STREET AND/OR PRIVATE TRAFFIC SIGNAGE AS IS NEEDED FOR CONSTRUCTION AND SHALL RESTORE AFTER CONSTRUCTION WORK IS COMPLETED. ALL ASSOCIATED COSTS FOR THIS WORK TO BE CONSIDERED

CONTRACTOR SHALL COORDINATE LOCATION OF ANY ACCESS ROADS WITH THE LANDOWNER AND THE ENGINEER, ANY ACCESS ROAD SHALL BE REPAIRED TO THE LANDOWNERS AND OWNERS APPROVAL.

ALL WORK WITHIN THE ROAD RISHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS OF LIVINGSTON COUNTY ROAD COMMISSION, WHERE APPLICABLE.

GENERAL NOTES

UILLINES

ELECTRIC, SAS, WATER AND TELEPHONE UTILITIES LOCATED IN DRAIN RIGHT-OF-WAYS THAT CROSS OR IMPACT ANY
AREAS OF O'PEN CUT EXCAVATION MUST BE LOCATED PRIOR TO EXCAVATION WORK AND ELEVATIONS MUST BE
PROVIDED TO ENOMER'S TO CONFIRM THE CONFIRM SHIP.

ALL WATER VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE. COST OF WORK CONSIDERED INCIDENTAL TO

ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE

ALL MANHOLE RIMS IN ROADWAYS, PATHS, AND DRIVES SHALL BE ADJUSTED PRIOR TO FINAL PAVING TO BE FLUSH

GRADING AROUND MANHOLESICATCHBASINS, FLARED END SECTIONS, AND OTHER INLETS DETERMINED BY THE ENGINEER SHALL BE SMOOTH AND SHAPED TO PROVIDE POSITIVE DRAINAGE INTO THE INLETS.

ALL CONCRETE MANHOLE TO PLASTIC PIPE CONNECTIONS SHALL BE MADE WITH A WATERTIGHT GASKET SUCH AS A

ALL STORM SEWER ARE TO BE PREMIUM JOINT UNLESS OTHERWISE SPECIFIED.

ALL FLARED END SECTIONS ARE TO HAVE FACTORY SUPPLIED ANIMAL GUARD.

DEMOLISH EXISTING STRUCTURE(S) AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS, COST TO BE INCLUDED WITH THE ITEM BEING INSTALLED AS DIRECTED BY ENGINEER.

CONTRACTOR SHALL CONNECT ANY AND ALL FIELD TILE OUTLETS AND OTHER STORM LEADS ENCOUNTERED TO PROPOSED STORM SEWER WITH PREMAUPACTURED TESS. WESS, GASKETS, SEALS, COUPLERS, BOOTS, ETC, COST IS TO BE INCLUDED IN UNIT BID PRICE FOR STORM SEWER INSTALLATION.

SOIL EROSION SEDIMENT CONTROL.
SEE SHEETS 3 TO 4 FOR SOIL EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS.

THE MORK REPRESENTED BY THIS DRAWNING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC ACTION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVAILENT ATTHE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OF URPROSE.

CONSTRUCTION CONTACTS

OWNER KEN RECKER II, PE - CHIEF DEPUTY

BRYAN VARACALLE - INSPECTION & CONSTRUCTION MANAGER BVARACALLE@LIVGOV.COM

2300 E GRAND RIVER AVE #105

ENGINEER
GEI CONSULTANTS OF MICHIGAN, P.C.
BRIAN CENCI, P.E. - PROJECT MANAGER
BCENCI@GEI CONSULTANTS COM
C: (517) 449-3478

LEAH MARINO - PROJECT ENGINEER LMARINO@GEICONSULTANTS.COM C: (989) 550-4170

401 SOUTH WASHINGTON SQUARE SUITE 103 LANSING, MI 48933

ROADS LIVINGSTON COUNTY ROAD COMMISSION KIM HILLER, P.E. - UTILITIES & PERMITS ENGINEER KHILLER@LIVINGSTONROADS.ORG

PROJECT DATUM HORIZONTAL: STATE PLANE SOUTH MJ 1983 2113

VERTICAL: NORTH AMERICAN VERTICAL DATUM 1988

PARCEL OWNERSHIP INGHAM COUNTY EQUALIZATION 2018 RECORDS

AERIAL IMAGERY 2019, 6 INCH, .TIF; NORTH AMERICAN DATUM 1983 SPC MJ S FIPS 2113

SURVEY DATA 2014-2019

3535 GRAND OAKS DRIVE

UTILITY CONTACTS

ATT: CRAIG MCCREIGHT 550 S. MAPLE RD. ANN ARBOR MI 48103 PHONE: (734) 996-5341

> COMCAST KELSEY LACK PHONE: (419) 874-9262 KELSEY LACK@TEAMSIGMA.COM

DTE ELECTRIC

37849 INTERCHANGE DR. FARMINGTON HILLS, MI 48335 PHONE: (248) 427-220 NWPD@DTEENERGY.COM

CONSUMERS - GAS STEVEN SORIA - GEN ANG TECH ANL II PHONE: (800) 477-5050 STEVEN SORIA@CMSENERGY.COM

SANITARY SEWER FORCEMAIN

BRIGHTON TOWNSHIP
SEWER DAYTIME: (810) 229-9950
SEWER EMERGENCY: (810) 806-1718
UTILITIESCOMMITTEE@BRIGHTONTWP.COM

SYMBOL LEGEND EXISTING

(D) - MANHOLE

G - CATCHBASIN

☑ - CURB CATCHBASIN

TELEBUONE DEDESTAL

- GAS VALVE O - TELEPHONE POLE

 POWER AND TELEPHONE POLE - LIGHT POLE

← O - GUY ANCHOR AND POLE

- MAIL BOX

- WATER VALVE - FIRE HYDRANT

- SIGN - EXISTING SIGN-2 POST

(A) - CABLE TV PEDESTAL WATER METER

(n) - TELEPHONE MANHOLE

- ELECTRIC MANHOLE OM.W- MONITORING WELL

☐ - TRANSFORMER - ELECTRICAL PEDESTAL

- BARRIER FREE PARKING - ANTENNA

60 - SATELLITE DISH - AIR CONDITIONING UNIT

- SOIL BORING - FENCE

SDDINKI ED 000 - RAILROAD SIGNAL

@ - FOUND SURVEY CORNER - SET 3/4" IRON PIPE

A. - BREAK IN LINE

- WETLANDS - EDGE OF WOODS

- DECIDU - DECIDIOUS TREE - CONFEROUS TREE

- STUMP - MAILBOX

 ★ - LIGHT POLE
 ← GUY ANCHOR - UTILITY POLE - TELEPHONE PEDESTAL BM - BENCHMARK

SYMBOL LEGEND PROPOSED

(D) - MANHOLE 6 - CATCHBASIN YY - FIRE HYDRANT

- BARRIER FREE PARKING DRAINAGE FLOW

- third or cons ■ - DIRECTION OF FLOW

♠ (00,0) - SPOT ELEVATION LABELS

EXP - EXPOSE UTILITY PRIOR TO EXCAVATION

(REM) - REMOVE PIPE OR STRUCTURE

(ADJ) - ADJUST

ABBREVIATIONS

BIT = BITUMINOUS BM = BENCH MARK C/C = CENTER TO CENTER CB = CATCH BASIN CF = CUBIC FEET

CJ = CONSTRUCTION JOINT CMP = CORRUGATED METAL PIPE CP = CONTROL POINT

VERIFY COMCAST CSP = CONTROL POINT CSP = CORRUGATED STEEL PIPE CONC = CONCRETE

CONC = CONCRETE
DET = DETAIL
DI = DUCTILE IRON
DR = DRAIN
EF = EACH FACE
ELCC = ELECTRIC
EL CR ELEV = ELEVATION
EOM = EDGE OF METAIL
EOP = EDGE OF METAIL
EOSS = EOUALLY SPACED
ESMT = EASEMENT

EX OR EXIST = EXISTING FF = FINISH FLOOR

FF = RINSH FLOOR
FL = FLOW LINE
FS = RINSH SURFACE
FS = FINISH GROUND
GALV = GALVANIZED
G = GUTTER
HDD = HORIZONTAL DIRECTIONAL DRILLING
HDS = HOT DIP GALVANIZED
HDPE = HIGH DENSITY POLYETHYLENE
HD = HIGH DENSITY POLYETHYLENE
HD = HIGH DENSITY POLYETHYLENE HP = HIGH POINT

HMA = HOT MIX ASPHALT HYD = HYDRANT INV = INVERT

INV = INVERT
LP = LOW POINT
LWL = LOW WATER LEVEL
CC = ON CENTER
OH = OVERHEAD
MH = MANHOLE
MIN = MINIMUM
MON = MONUMENT
NFL = NOT FIELD LOCATED
NTS = NOT TO SCALE

NWL = NORMAL WATER LEVEL PROP = PROPOSED PKUP = PKUPOSED PVC = POLYVINYL CHLORIDE RCP = REINFORCED CONCRETE PIPE

ROW = RIGHT OF WAY

ROW = RIGHT OF WAY
SAN = SANITARY
SB = SOIL BORING
SS = STAINLESS STEEL
STA = STATION
STM = STORM
SWR = SEWER
T/B = TOP AND BOTTOM
TC = TOP OF CURB
TOB = TOP OF BANK
TOP = TOP OF BANK
TOP = TOP OF BURE

TOP = TOP OF PIPE TOP = TOP OF PIPE
TOS = TOE OF SLOPE
TELE = TELEPHONE
TR = TRENCH
TRW = TOP OF RETAINING WALL
TW = TOP OF WALK
UG = UNDERGROUND
UND = UNLESS NOTED OTHERWISE
WM = WATER MAIN

WS = WATER SURFACE ELEVATION

LINE TYPE LEGEND

STRM EASEMENT PARCEL BOUNDARY WETLAND BOUNDAR _-----ROAD CENTERLINE 1400 STATION LINE FASEMENT

255055055

BUILDING OUTLINE EDGE OF ROAD

EXISTING SANITARY SEWER OR FORDEWAIN EXISTING STORM SEWER
EXISTING COMMUNICATION LINE

EXISTING STORM SEWER - PLAN AND PROFILE

PROPOSED TURBIDITY CURTAIN PROPOSED SILT FENCE

> PROPOSED HIMA PAVEMENT RESTORATION PROPOSED DRIVEWAY HIMA PAVEMENT RESTORATION PROPOSED DRIVEWAY HIMA PAVEMENT RESTORATION

- PROPOSED RIPRAP - PROPOSED STORM SEWER

DITCH GRADING CENTERLINE APPROX. WATERS EDGE

EXISTING GAS UNDERGROUND EXISTING UNDERGROUND ELECTRIC

EXISTING OVERHEAD ELECTRIC
EXISTING CURB & GUTTER
EXISTING GROUND SURFACE — PROFILE WEW

PROPOSED CURB & CUTTER

PROPOSED DRIVEWAY GRAVEL RESTORATION

DSM BY 2000946 Attention: If this scale bar does not meas then drawing is not original scale NO DATE ISSUE/REVISION SHEET NAME

SHEET NO

GENERAL NOTES

01-G-02

2 OF 15

Preliminary

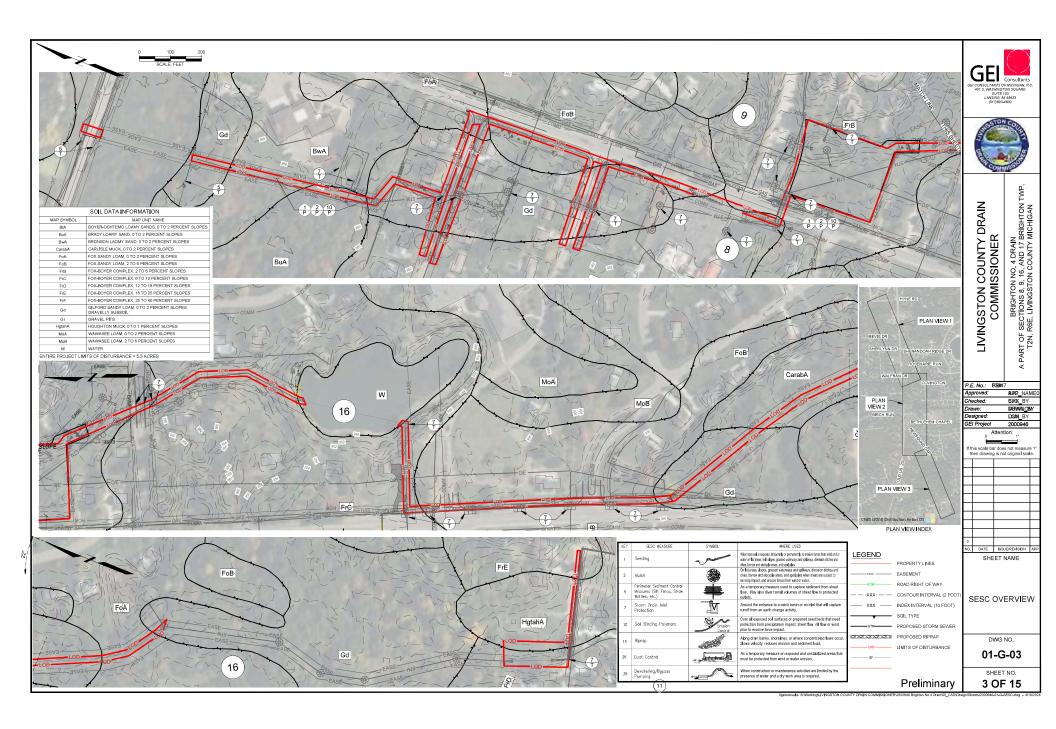


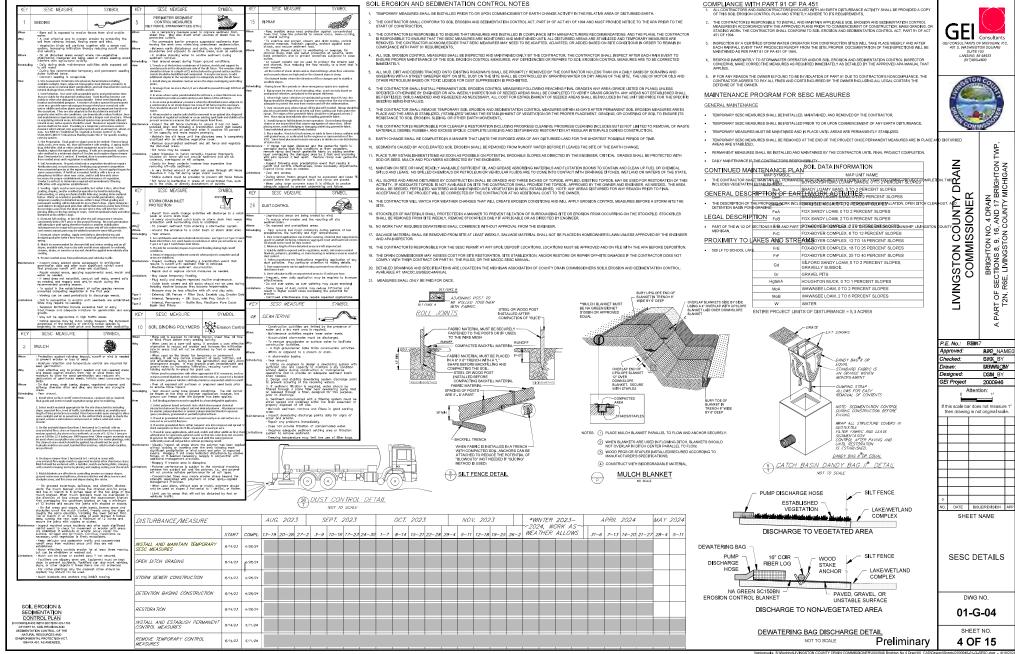
DRAIN BRIGHTON NO. 4 DRAIN TIONS 8, 9, 16, AND 17 BRIGHTON LIVINGSTON COUNTY MICHIGAN SSTON COUNTY I LIVINGSTON SECT R6E,

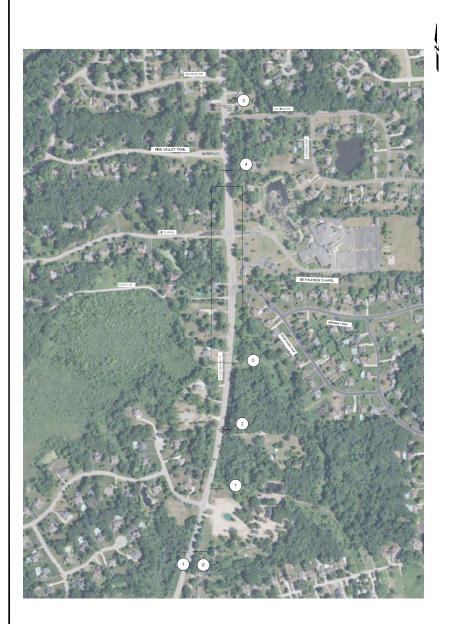
P.E. No.: 93947 BRP NAMI BHOK BY DIEMINORY Designed: GEI Project

A PART OF T2N, F

DWG NO







SIGN LEGEND





2





3

WORK ZONE **BEGINS** R5-18C 48" X 48"

5

MPH

6

INJURE/ KILL A WORKER \$7500+ 15 YEARS

7





A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP TZN, R6E, LIVINGSTON COUNTY MICHIGAN LIVINGSTON COUNTY DRAIN COMMISSIONER

P.E. No.: 53847 MJW/LCM Designed: GEI Project LCM 2000946

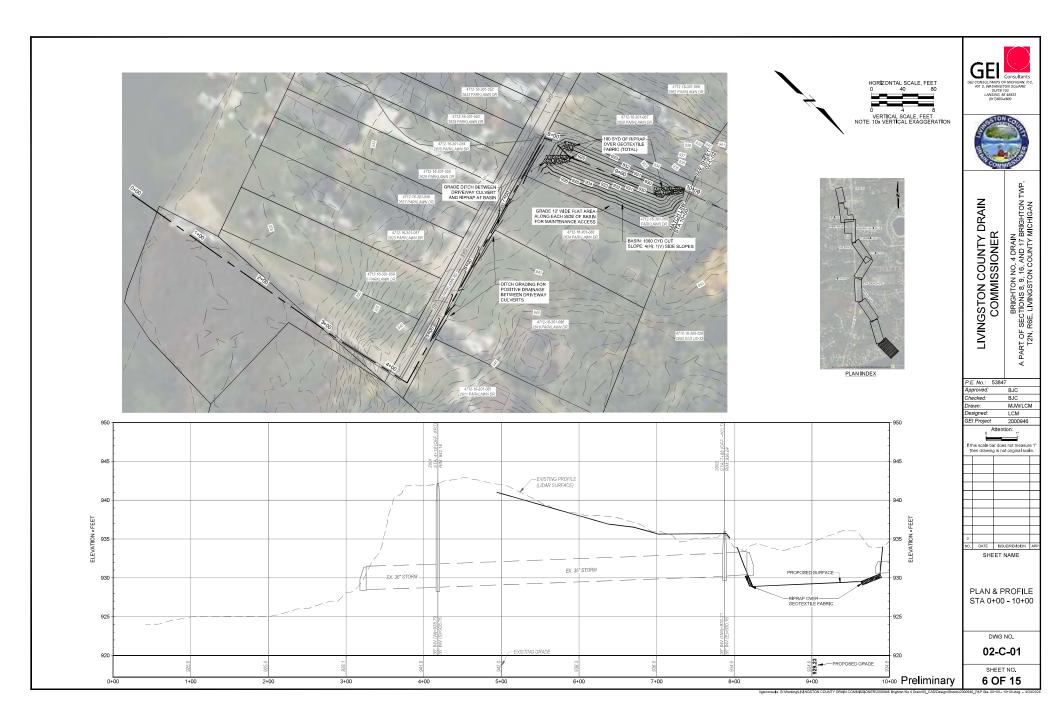
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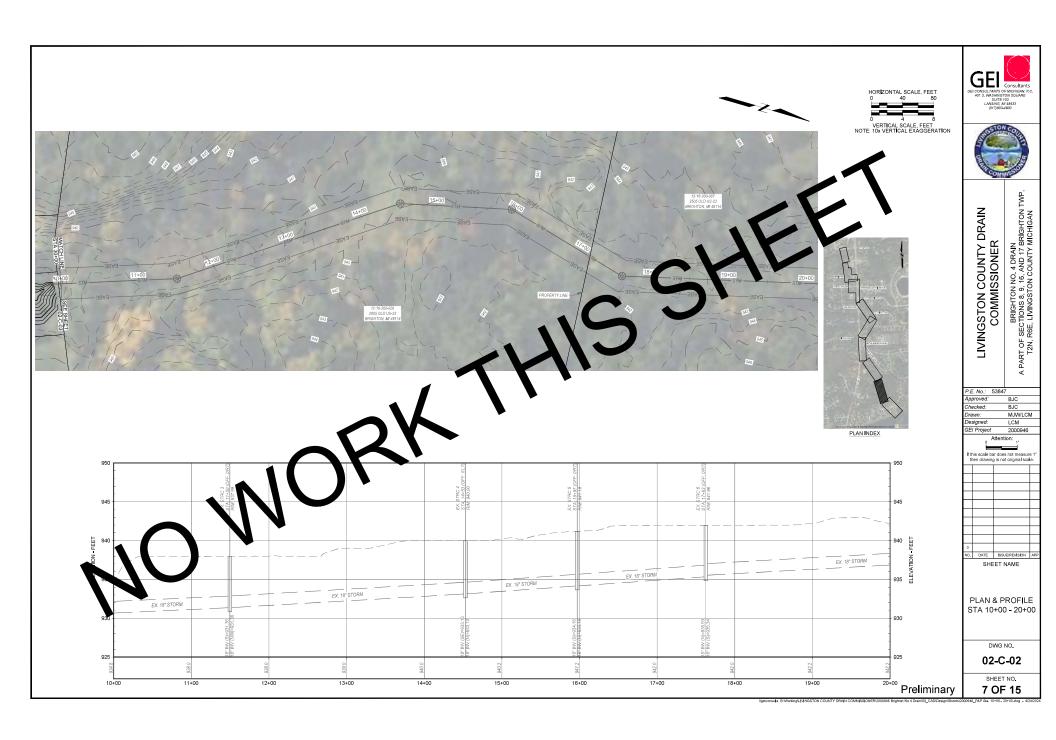
SHEET NAME

TRAFFIC CONTROL

DWG NO. 01-G-05

SHEET NO. 5 OF 15







PROPOSED OPEN CHANNEL BOTTOM (6" BELOW HYDRAULIC GRADE LINE BETWEEN DOWNSTREAM AND UPSTREAM STORM SEWER INVERTS)

941.0

25+00

941.9

26+00

939.43

27+00

939.81

28+00

943.0 940.20

29+00

EX. 18" STORM

21+00

20+00

947.0

22+00

947.0

23+00

EXISTING GRADE (TVP.)





A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP TZN, R6E, LIVINGSTON COUNTY MICHIGAN LIVINGSTON COUNTY DRAIN COMMISSIONER

P.E. No.: 53847 BJC MJW/LCM Designed: GEI Project LCM 2000946 Attention: If this scale bar does not measure then drawing is not original scale

SHEET NAME

PLAN & PROFILE STA 20+00 - 30+00

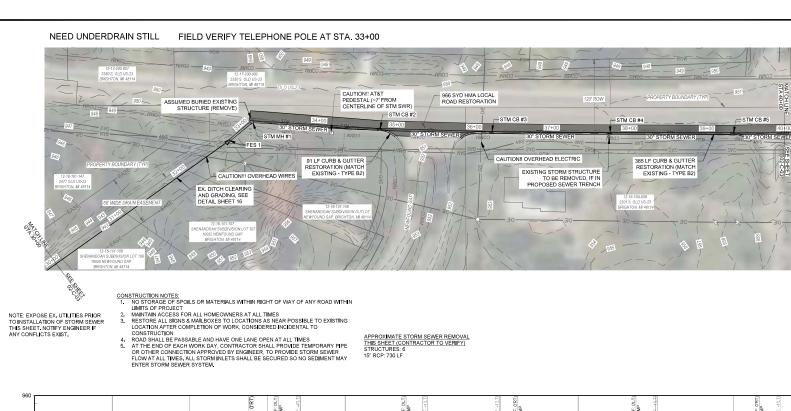
DWG NO.

02-C-03

SHEET NO. 8 OF 15

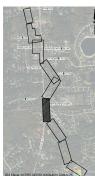
Preliminary

935



HORIZONTAL SCALE, FEET VERTICAL SCALE, FEET NOTE: 10x VERTICAL EXAGGERATION





PLAN INDEX

SUMP. 01 CB #5 39+33 (OFF: 0'F A. W/V 2 SUMP 950:77 SUMP STM CB #4 STA 37+75 (4 DIA W/2 S RIM 950 70 36+22 (36+22 (4, W//2 (950.46 955 950 152 LF 30" HP STORM SEWER @ 0.20% 159 LF 30" HP STORM SEWER @ 0.20% 144 LF 30" HP STORM SEWER @ 0.20% 940 (N)=943 13 (S)=943 13 (N)=943.45 (S)=943.45 323 22 323 32

SHEET NAME PLAN & PROFILE STA 30+00 - 40+00

02-C-04

9 OF 15

Preliminary

BRIGHTON NO. 4 DRAIN SECTIONS 8, 9, 16, AND 17 BRIGHTON R6E, LIVINGSTON COUNTY MICHIGAN LIVINGSTON COUNTY I COMMISSIONER

P.E. No.: 53847

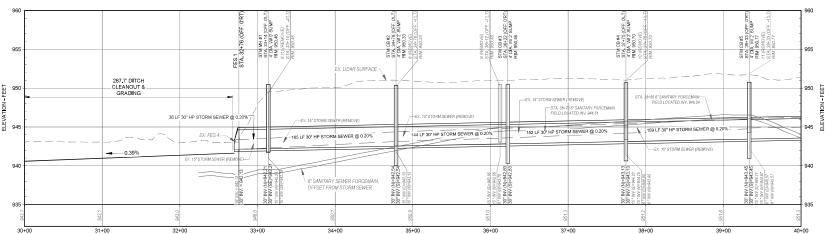
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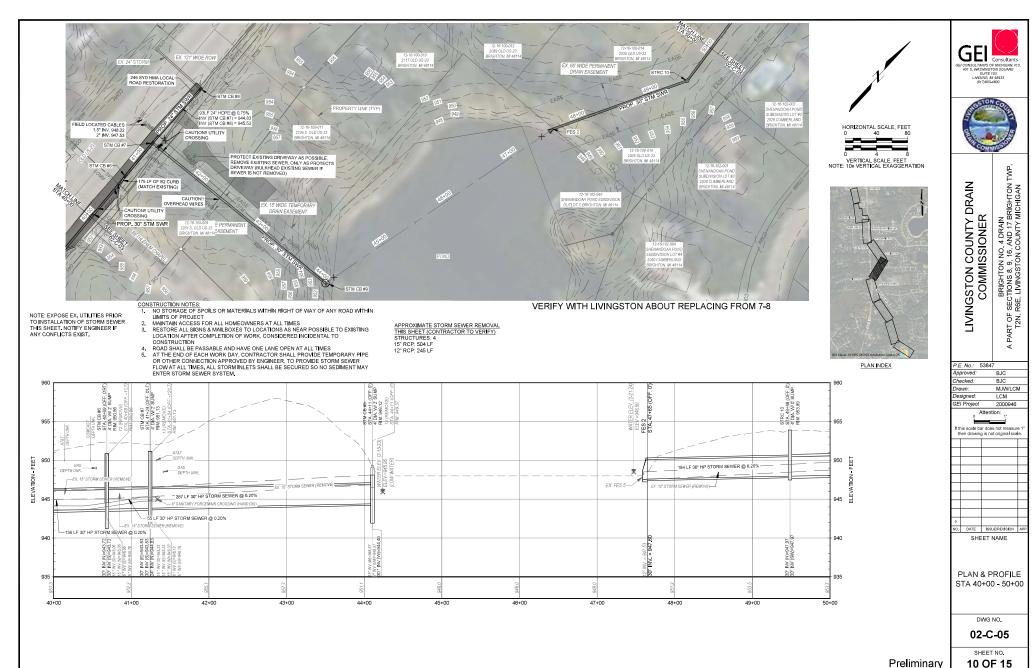
DRAIN

BJC MJW/LCM Designed: LCM GEI Project 2000946 Attention: If this scale bar does not measure then drawing is not original scale

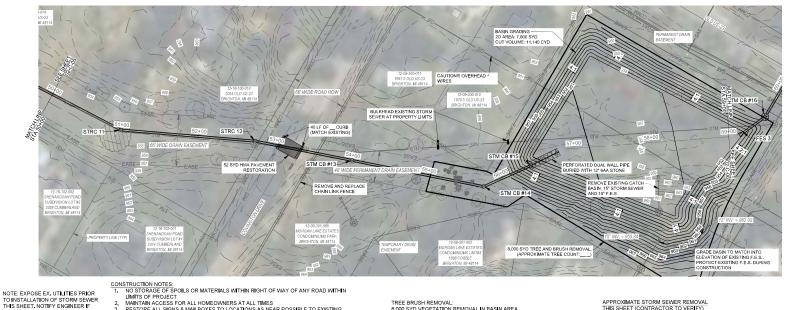
DWG NO.

SHEET NO.





THE INTERPRETATION COUNTY DRAIN COMMISSIONER/2000045 Brighton No.4 Drain/00 CADIDesign/Sharks/2000445, RAP Sta. 40+00., 50+00 dwn. 4.0



ANY CONFLICTS EXIST.

*** MARTHAM ACCESS FOR ALL HOMEOWNERS AT ALL TIMES
 *** RESTORE ALL SIGNS & MALBOXES TO LOCATIONS AS NEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK. CONSIDERED INCIDENTAL TO CONSTRUCTION
 *** ROAD SHALL BE PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES
 *** AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE

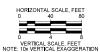
AT THE END OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OT OTHER CONNECTION APPROVED BY ENGINEER, TO PROVIDE STORM SEWER FLOW AT ALL TIMES. ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY

TREE BRUSH REMOVAL: 8.000 SYD VEGETATION REMOVAL IN BASIN AREA TREE REMOVAL THIS SHEET OUTSIDE OF VEGETATION REMOVAL LIMITS 6" - 12": 3 13" - 24": 0

25" OR GREATER: 1

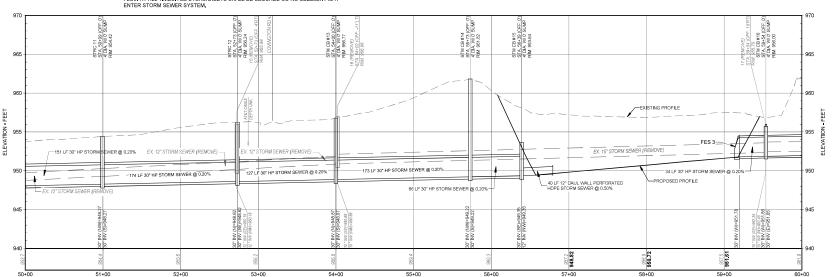
APPROXIMATE STORM SEWER REMOVAL THIS SHEET (CONTRACTOR TO VERIFY) STRUCTURES: 3 15" RCP: 924 LF (VERIFY PIPE SIZE) FES: 1







PLAN INDEX







DRAIN

BRIGHTON NO. 4 DRAIN SECTIONS 8, 9, 16, AND 17 BRIGHTON R6E, LIVINGSTON COUNTY MICHIGAN LIVINGSTON COUNTY I COMMISSIONER A PART OF T2N, F

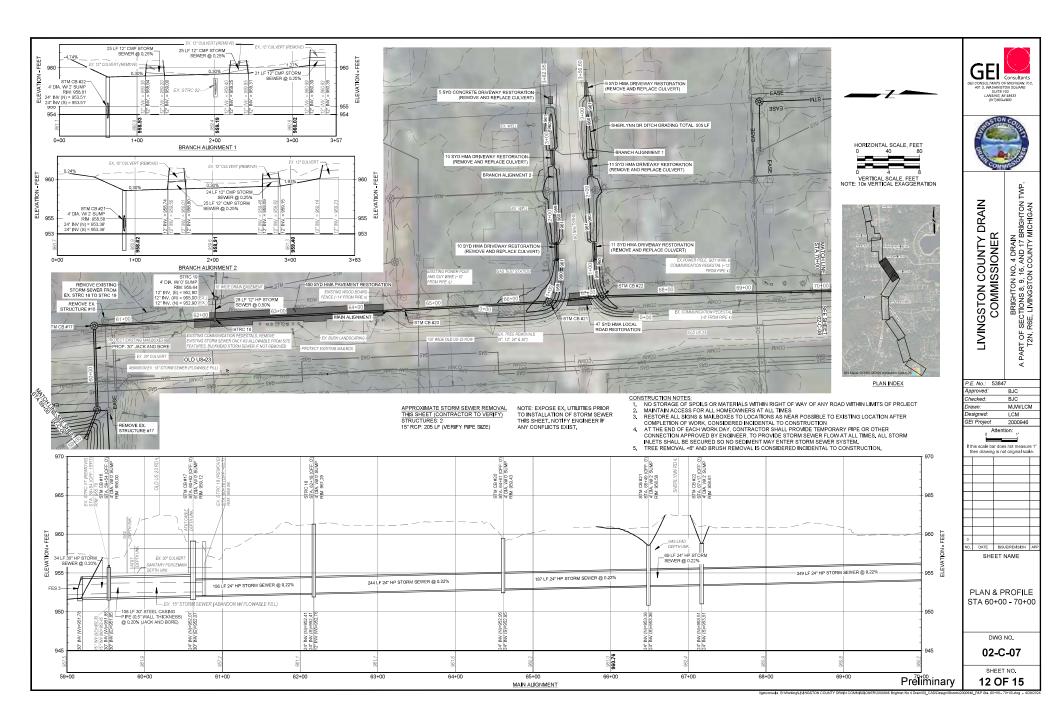
P.E. No.: 53847 BJC MJW/LCM Designed: LCM GEI Project 2000946

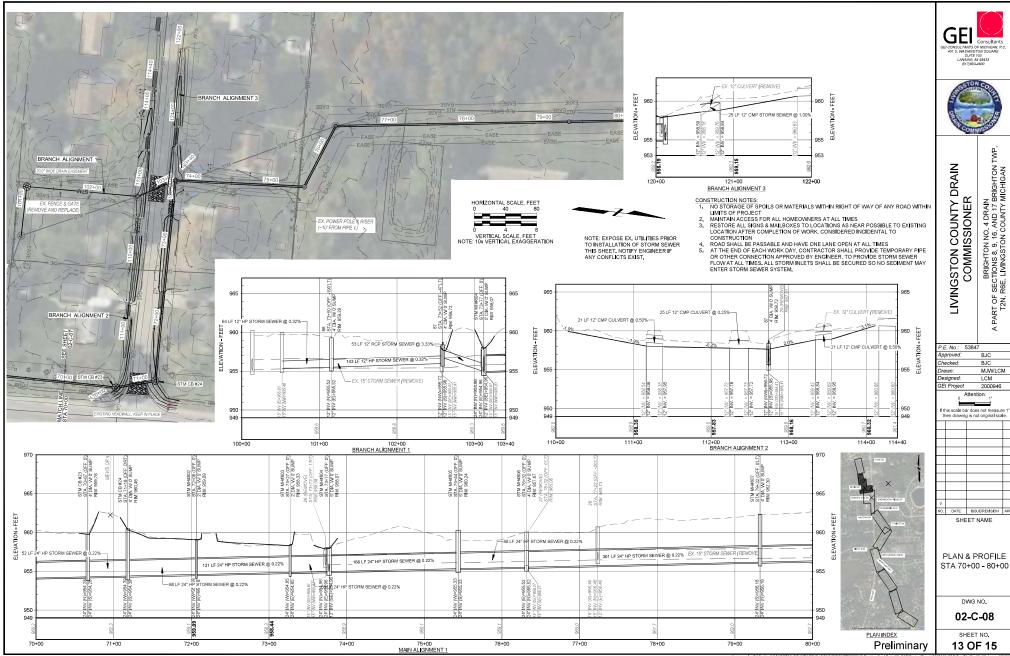
Attention: If this scale bar does not measure then drawing is not original scale SHEET NAME

PLAN & PROFILE STA 50+00 - 60+00

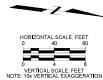
> DWG NO. 02-C-06

SHEET NO. 11 OF 15









NOTE: EXPOSE EX. UTILITIES PRIOR TO INSTALLATION OF STORM SEWER THIS SHEET. NOTIFY ENGINEER IF ANY CONFLICTS EXIST.

- CONSTRUCTION NOTES:

 1. NO STORAGE OF SPOILS OR MATERIALS WITHIN RIGHT OF WAY OF ANY ROAD WITHIN LIMITS OF PROJECT

 2. MAINTAIN ACCESS FOR ALL HOMEOWNERS AT ALL TIMES

 3. RESTORE ALL SIGNIS & MALEDIOXES TO LICCATION AS HEAR POSSIBLE TO EXISTING LOCATION AFTER COMPLETION OF WORK, CONSIDERED INCIDENTAL TO CONSTRUCTION

 4. ROAD SHALL BEY PASSABLE AND HAVE ONE LANE OPEN AT ALL TIMES

 5. ATTHE LEND OF EACH WORK DAY, CONTRACTOR SHALL PROVIDE TEMPORARY PIPE OR OTHER CONNECTION APPROVED BY ENGINEER. TO PROVIDE STORM SEWER FLOW AT ALL TIMES, ALL STORM INLETS SHALL BE SECURED SO NO SEDIMENT MAY ENTER STORM SEWER SYSTEM.





LIVINGSTON COUNTY DRAIN COMMISSIONER

BRIGHTON NO. 4 DRAIN A PART OF SECTIONS 8, 9, 16, AND 17 BRIGHTON TWP TZN, RGE, LIVINGSTON COUNTY MICHIGAN

MJW/LCM Designed: LCM GEI Project 2000946 Attention: If this scale bar does not measure then drawing is not original scale

P.E. No.: 53847

SHEET NAME

PLAN & PROFILE STA 80+00 - 90+00

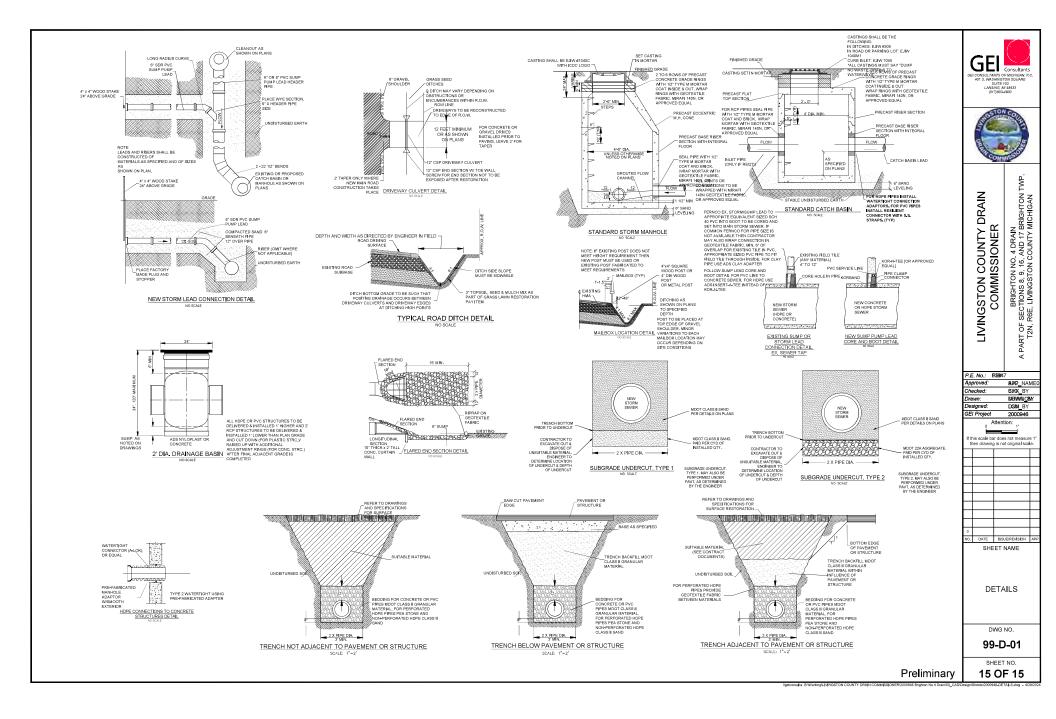
DWG NO.

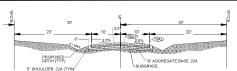
02-C-09

SHEET NO.

14 OF 15

ELEVATION - FEET 960 ELEVATION -290 LF 24" HP STORM SEWER @ 0.22% 960 EX. 15" STORM SEWER (REMOVE) 52 LF 18" CLASS V RCP CULVERT @ 0.50%-955 955 950 950 949 949 84+00 85+00 80+00 81+00 82+00 86+00 87+00 MAIN ALIGNMENT 1





HMA, LOCAL ROAD RESTORATION

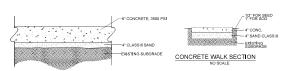
SCALE: 1"=10" NOTE: FULL SECTION SHALL BE USED AT CORNERS

HMA APPLICATION CHART - ALL ROAD RESTORATION

IDENT NO.	ITEM	RATE OF APPL. F LBS/SY	ERFORMANC GRADE	E COMMENTS
36AT	HMA MIXTURE 36A, 2*	220	PG 58-28	TOP COURSE
13AL	HMA MIXTURE 36A, 3"	330	PG 58-28	LEVELING COURSE (1 LIFT)
36A	HMA APPROACH	330	PG 58-28	DRIVEWAY APPROACHES, HMA MIXTURE 36A



HMA, DRIVEWAY RESTORATION



CONCRETE DRIVE SECTION NO SCALE

BOND COAT SHALL BE SS-1H APPLIED AT A RATE OF 0.1 GAUSYD.
PAVEMENT THICKNESS SHALL BE AS SPECIFIED OR MATCH EXISTING BITUMINOUS THICKNESS, WHICHEVER IS GREATER.

NOTES:

CONCRETE CURB AND/OR GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH INDOT STANDARD PLAN R-30-0.

NOTES:

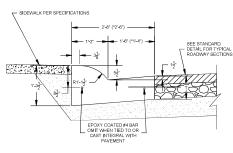
SIDEWALK PER SPECIFICATIONS

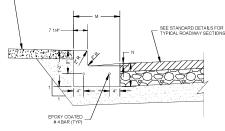
CONCRETE CURB AND/OR GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH IMDOT STANDARD PLAN R-30-G.

(*GUTTER PAN WIDETH MAY BE REDUCED WHEN APPROVED BY THE ENGINEER)

DETAIL	DIMENSION	LANE TIES	NETIES CONCRETE	
	Т	CANE HES	CYD/LFT	CYD/LFT
B1	9"	AS SHOWN	0.0900	(*0.0855)
B2	9"	OMITTED	0.0900	(*0.0855)
B3	10"	AS SHOWN	0.0941	(*0.0855)

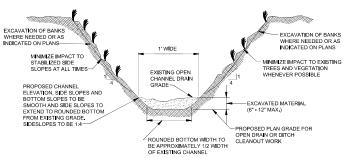
DETAIL	DIMENSION		LANE TIES	CONCRETE			
	M	N	DANC NES	CYD/LFT			
F2	1'-6"	7/8"	OMITTED	0.0484			
F4	2' - 0"	7/8"	OMITTED	0.0610			



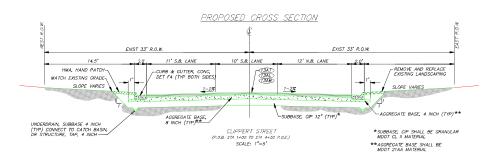


TYPE B CONCRETE CURB AND GUTTER DETAIL

TYPE F CONCRETE CURB AND GUTTER DETAIL









LIVINGSTON COUNTY DRAIN COMMISSIONER

BRIGHTON NO. 4 DRAIN TIONS 8, 9, 16, AND 17 BRIGHTON LIVINGSTON COUNTY MICHIGAN SECT R6E, I A PART OF T2N, F

P.E. No.: 93847 BHIK BY DIRWINGBY Designed: DSM_BY GEI Project 2000946 Attention: If this scale bar does not measure then drawing is not original scale

NO. DATE ISSUE/REVISION A SHEET NAME

DETAILS

DWG NO.

99-D-01

SHEET NO. 15 OF 15