

State of Vermont

Policy, Planning & Intermodal Development Division

Policy, Planning and Research Bureau

**Development Review & Permitting Services Section** 

Barre City Place, 219 North Main Street

[phone] 802-636-0037

Barre, VT 05641

[ttd] 800-253-0191

vtrans.vermont.gov

January 2, 2020

Agency of Transportation

Town of Bennington
Daniel Monks
205 South Street, PO Box 469
Bennington, VT 05201
[Via E-Mail]

Subject: <u>Bennington</u>, <u>US7</u>, <u>L.S.</u> 219+50 ~ 224+20 <u>LT & RT and</u> Bennington, <u>VT7A</u>, <u>L.S.</u> 0+00 ~ 6+65 RT

Bennington STP SDWK(12) and Bennington STP BP18(14) – Kocher Drive Sidewalk

VTrans Permit ID 41664 – Permit Extension and Revision

Dear Mr. Monks:

Per your request, the "work completion date" for the permit issued on December 19, 2018, to construct a shared use path along VT7A and Kocher Drive, including a new crosswalk over Aldi/CVS Drive and US7, <a href="https://has.been.extended.to">has been extended to</a> December 1, 2020. Work under this permit also includes drainage, roadway improvements and modifications to VTrans signal system.

This permit extension acknowledges and approves revisions to the project plans, dated "Final Plans <u>For Construction</u> November 2019", which includes the elimination of all street trees and shrubs within the VT7A state right-of-way and the replacement of the box culvert extension with a prefabricated pedestrian bridge located within the Town's highway right-of-way.

This permit extension letter becomes a part of the originally issued permit and should be attached to your copy.

The work must be completed under the same conditions as set forth in the original permit #41664.

Please feel free to contact Theresa Gilman at (802) 917-4496 if you have questions or comments

Sincerely,

E-SIGNED by Craig Keller on 2020-01-03 12:10:19 GMT

Craig S. Keller, P.E. Chief of Permitting Services Permitting Services Section

# Attachment

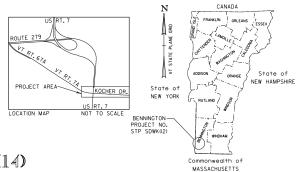
CC:

[Via E-Mail]

Nick Myran, MSK Engineering, Inc
Mark Anders, Bennington Regional Planning Commission
District Transportation Office #1 (Rob Faley, Chris Taft)
Tina Bohl, Project Manager, VTrans Municipal Assistance Bureau
Ian Degutis, VTrans Transportation Operation Engineer, TSMO
Derek Lyman, VTrans Traffic Signal Operations Engineer, TSMO
Joe Kelly, VTrans Traffic Safety Investigator, TSMO
Nancy Avery, VTrans Work Zone Engineer, TSMO

# STATE OF VERMONT AGENCY OF TRANSPORTATION





# BENNINGTON - STP SDWK(12) & BP18(14) TOWN OF BENNINGTON COUNTY OF BENNINGTON

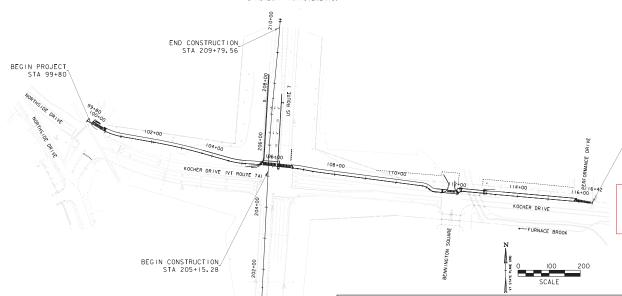
# PROJECT LOCATION

BEGINNING ON KOCHER DRIVE AT THE INTERSECTION WITH NORTHSIDE DRIVE AND PROCEEDING EASTERLY ALONG KOCHER DRIVE FOR 0.3 MILES TO THE INTERSECTION WITH PERFORMANCE DRIVE.

PROJECT LENGTH: APPROXIMATELY 1600 FEET

# PROJECT DESCRIPTION

CONSTRUCTION OF A SHARED USE PATH ALONG KOCHER DRIVE INCLUDING A PREFABRICATED PEDESTRIAN BRIDGE, SIGNAL, DRAINAGE & ROADWAY IMPROVEMENTS.



MSK ENGINEERING AND DESIGN, INC. P.O. BOX 139, 150 DEPOT STREET BENNINGTON, VERMONT 05201

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE 2018 VERMONT ACENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED APRIL 13, 2018, INCLUDING ALL SUBSEQUENT REVISIONS AND SUPECHAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 2

SURVEYED BY : MSK ENGINEERING, INC. SURVEYED DATE : NOVEMBER 2014

DATUM

VERTICAL: NAVD 1988 HORIZONTAL: NAD 1983 FINAL PLANS
FOR CONSTRUCTION
November 2019

FINAL PLANS NOVEMBER 2019

1 South Main Street, 2nd Floor Waterbury, Vermont 05676 (802) 882-8335 Fax (802) 882-8346 www.miloneandmacbroom.com END PROJECT

PROJECT MANAGER : JASON DOLMETSCH

MILONE & MACBROOM\*

PROJECT NAME : KOCHER DRIVE

PROJECT NUMBER : STP SDWK (12) & STP BP18 (14)
SHEET | OF 29 SHEETS

II.	NDEX OF SHEETS TO	OTAL NUMBER OF SHEETS							
SHEET #	TITLE								
- 1	TITLE SHEET								
2	INDEX OF SHEETS								
3	LEGEND								
4-5	TYPICAL DETAILS								
6-8	QUANTITY SHEETS								
9	ALIGNMENT LAYOUT SHEET								
10-12	SIDEWALK LAYOUT SHEETS								
13	SIDEWALK PROFILE								
14	PAVEMENT MARKING DETAIL								
15-19	CROSS SECTIONS								
20	CONSTRUCTION APPROACH SIG	ONING AND TRAFFIC CONTROL NOTES							
21-22	TRAFFIC SIGNAL PLANS								
23	DRAINAGE PROFILES								
24-26	BRIDGE PLANS & DETAILS								
27-29	RIGHT-OF-WAY ACQUISITIONS								

VT	RANS STANDARDS	
SHEET #	TITLE	DATE
B-5	SLOPE GRADING, EMBANKMENTS, MUCK	06-01-1994
C-3A	SIDEWALK RAMPS	03-10-2008
C-3B	SIDEWALK RAMPS AND MEDIAN ISLANDS	03-10-2008
C-I0	CURBING	02-11-2008
D-16	DRAINAGE DETAILS INCLUDING DROP INLETS, IRON GRATE TYPE B&C, CONCRETE END SECTIONS, ETC.	06-01-1994
D-20	HIGHWAY CROSSING SLEEVES FOR UNDERGROUND UTILITIES	03-03-2003
E-121	STANDARD SIGN PLACEMENT CONVENTIONAL ROAD	08-09-1995
E-I45B	REGULATORY SIGN DETAILS - LANE USE CONTROL SIGNS	12-23-1994
E-170	TRAFFIC CONTROL SIGNALS PEDESTAL POST MOUNTED	11-04-1999
E-I7Ia	TRAFFIC CONTROL SIGNALS GENERAL NOTES & DETAILS	08-09-1995
E-171b	TRAFFIC CONTROL SIGNALS MISC. DETAILS	08-09-1995
E-171c	TRAFFIC CONTROL SIGNALS CANTILEVER MOUNTING DETAILS	08-09-1995
E-173	PULL BOXES AND JUNCTION BOXES	08-09-1995
G-I	STEEL BEAM GUARDRAIL WITH STEEL POSTS	11-10-2015
G-ID	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	03-10-2017
S-364C	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	02-10-2014
T-I	TRAFFIC CONTROL GENERAL NOTES	04-25-2016
T-I0	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-29	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	08-06-2012
T-3I	CONSTRUCTION SIGN DETAILS	08-06-2012
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013
T-55	SIGN PLACEMENT EXPRESSWAY & FREEWAY	10-26-2015
T-56	STANDARD SIGN PLACEMENT	10-26-2015

PROJECT NUMBER: STP SDWK (I2) & STP BPI8 (I4)

FILE NAME: ZSTPSDWKIZ\_Index PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH INDEX OF SHEETS PLOT DATE: IO/I/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 2 OF 29

# GENERAL INFORMATION

# SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY, THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

# R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

R. O. W.	ARRKF A	TATLONS (CODES) & SYMBOLS
POINT	CODE	DESCRIPTION
	CH CONST CUL D&C DIT DR DRIVE EC HWY I&M LAND R&RES R&REP SR UE (P) (T)	CHANNEL EASEMENT CONSTRUCTION EASEMENT CULVERT EASEMENT DISCONNECT & CONNECT DITCH EASEMENT DRIVEWAY EASEMENT EROSION CONTROL HIGHWAY EASEMENT INSTALL & MAINTAIN EASEMENT INSTALL & MAINTAIN EASEMENT REMOVE & RESET REMOVE & REPLACE SLOPE RICHT UTILITY EASEMENT TEMPORARY EASEMENT TEMPORARY EASEMENT TEMPORARY EASEMENT
■ ● ⊚ ⊠ O [LENG	BNDNS BNDNS IPNS IPNS CALC PROW TH]	BOUND SET BOUND TO BE SET IRON PIN SET IRON PIN TO BE SET EXISTING ROW POINT PROPOSED ROW POINT LENGTH CARRIED ON NEXT SHEET

#### COMMON TOPOCRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
*	APL	BOUND APPARENT LOCATION
0	ВМ	BENCHMARK
	BND	BOUND
	CB	CATCH BASIN
Ó.	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
ф	EL	ELECTRIC POWER POLE
۰	FPOLE	FLAGPOLE
0	GASFIL	GAS FILLER
0	GP	GUIDE POST
M	GS0	GAS SHUT OFF
0	GUY	GUY POLE
۰	GUYW	GUY WIRE
н	GV	GATE VALVE
₿	Н	TREE HARDWOOD
Δ	HCTRL	CONTROL HORIZONTAL
Δ	HVCTRL	CONTROL HORIZ. & VERTICAL
<b>\$</b>	HYD	HYDRANT
0	IP	IRON PIN
	IPIPE	IRON PIPE
¢	LI	LIGHT - STREET OR YARD
ď	MB	MAILBOX
0	MH	MANHOLE (MH)
0	MM	MILE MARKER
•	PM	PARKING METER
0	PMK	PROJECT MARKER
0	POST	POST STONE/WOOD
ਰ	RRSIG	RAILROAD SIGNAL
•	RRSL	RAILROAD SWITCH LEVER
¥	S	TREE SOFTWOOD
2	SAT	SATELLITE DISH
₿	SHRUB	SHRUB
0	SIGN	SIGN
Л	STUMP	STUMP
0	TEL	TELEPHONE POLE
•	TIE	TIE
0 0	TSIGN	SIGN W/DOUBLE POST
Α.	VCTRL	CONTROL VERTICAL
۰	WELL	WELL
м	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

# PROPOSED GEOMETRY CODES

PROPOS	ED GEOMETRY CODES
CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (IOOFT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLOGY
UNDERGROUND UTILITIES
— UGU — · · · - · · · UTILITY (GENERIC-UNKNOWN)
— υτ — · · · - · · · TELEPHONE
— UE — · · − · · − ELECTRIC
— UC — · · · − · · · CABLE (TV)
— UEC — · · · − · · · ELECTRIC+CABLE
— UET — · · · - ELECTRIC+TELEPHONE
- UCT - · · · - CABLE+TELEPHONE
- UECT - · · - · · - ELECTRIC+CABLE+TELEP.
— 6 — · · − · · - GAS LINE
— w — · · · − · · · · WATER LINE
— s — · · − · · - SANITARY SEWER (SEPTIC)
ABOVE GROUND UTILITIES (AERIAL)
- AGU - · · - · · - UTILITY (GENERIC-UNKNOWN)
— T — · · · − · · · TELEPHONE
— ε — · · · − · · · · ELECTRIC
— C — · · · - · · · CABLE (TV)
— EC — · · · - ELECTRIC+CABLE
— ET — · · · − · · · ELECTRIC+TELEPHONE
- AER E&T - · · - · ELECTRIC+TELEPHONE
— CT — · · · - CABLE+TELEPHONE
- ECT - · · - · · - ELECTRIC+CABLE+TELEP.
UTILITY POLE GUY WIRE
PROJECT CONSTRUCTION SYMBOLOGY
PROJECT DESIGN & LAYOUT SYMBOLOGY
— CZ — CLEAR ZONE
PLAN LAYOUT MATCHLINE
PROJECT CONSTRUCTION FEATURES

<u> </u>	TOP OF CUT SLOPE
$ \circ \hspace{-0.4cm} \hspace{-0.4cm} \circ \hspace{-0.4cm} \hspace{-0.4cm} \circ \hspace{-0.4cm} \hspace{-0.4cm} \circ$	TOE OF FILL SLOPE
8 8 8 8 8 8	STONE FILL
	BOTTOM OF DITCH €
=========	CULVERT PROPOSED
	STRUCTURE SUBSURFACE
PDFPDF	PROJECT DEMARCATION FENCE
B F <del>-× -× -</del> B F <del>-× -× -</del>	BARRIER FENCE
<<<>>	TREE PROTECTION ZONE (TPZ)
///////////////////////////////////////	STRIPING LINE REMOVAL
~~~~	SHEET PILES

# CONVENTIONAL BOUNDARY SYMBOLOGY

# BOUNDARY LINES

TOWN BOLINDARY LINE COUNTY BOUNDARY LINE STATE BOUNDARY LINE PROPOSED STATE R.O.W. (LIMITED ACCESS) - - - PROPOSED STATE R.O.W. — — — STATE ROW — — TOWN ROW - · - · - · - · PERMANENT EASEMENT LINE (P) ---- TEMPORARY EASEMENT LINE (T)  $\frac{P}{L}$  —  $\frac{P}{L}$  — PROPERTY LINE (P/L) SR SR SR SR SLOPE RIGHTS 6 --- 6F PROPERTY BOUNDARY 

# EPSC LAYOUT PLAN SYMBOLOGY

# EPSC MEASURES ONNOONNO FILTER CURTAIN SILT FENCE □ · · · · · · · · · SILT FENCE WOVEN WIRE DISTURBED AREAS REQUIRING RE-VEGETATION EROSION MATTING SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

# ENVIRONMENTAL RESOURCES

-	WETLAND BOUNDARY
	RIPARIAN BUFFER ZONE
	WETLAND BUFFER ZONE
	SOIL TYPE BOUNDARY
T&E	THREATENED & ENDANGERED SPECIES
наг наг	HAZARDOUS WASTE AREA
AG	AGRICULTURAL LAND
—— навітат ——	FISH & WILDLIFE HABITAT
- FLOOD PLAIN -	FLOOD PLAIN
-√0HW√-	ORDINARY HIGH WATER (OHW)
	STORM WATER
	USDA FOREST SERVICE LANDS

- · · - · · · · WILDLIFF HABITAT SUIT/CONN

# ARCHEOLOGICAL & HISTORIC

-- HISTORIC DISTRICT BOUNDARY 

#### (H)HISTORIC STRUCTURE

# CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

# EXISTING FEATURES ----- ROAD EDGE PAVEMENT

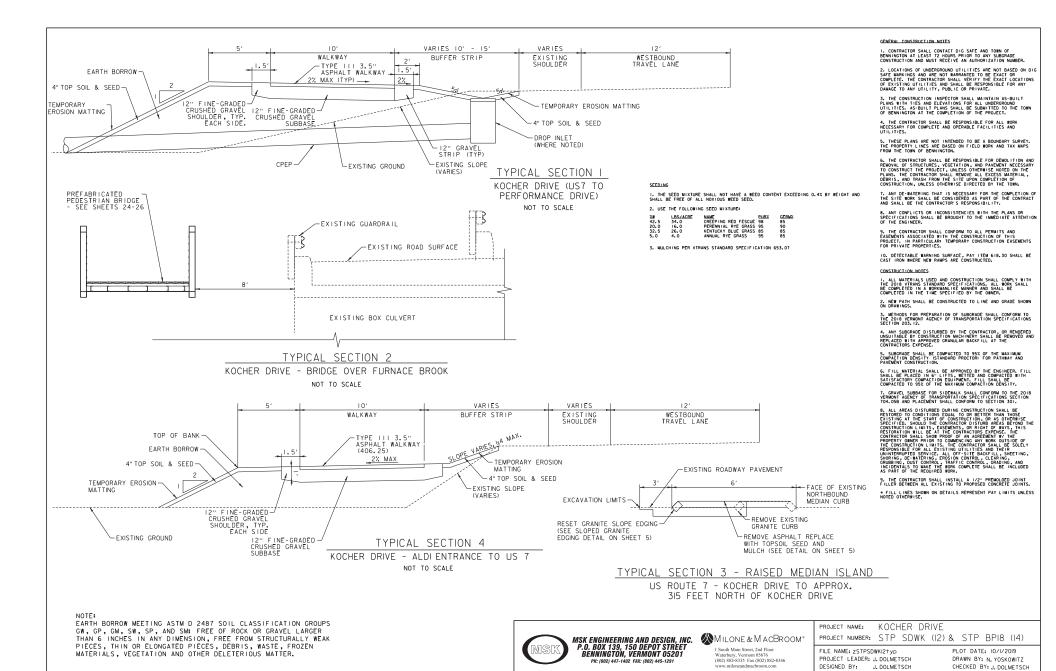
----- ROAD EDGE GRAVEL ----- DRIVEWAY EDGE ----- DITCH -----FOUNDATION SARDEN - . . . . ROAD GUARDRAIL RAILROAD TRACKS WALL WOOD LINE BRUSH LINE HEDGE BODY OF WATER EDGE LEDGE EXPOSED

PROJECT NAME: KOCHER DRIVE

PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

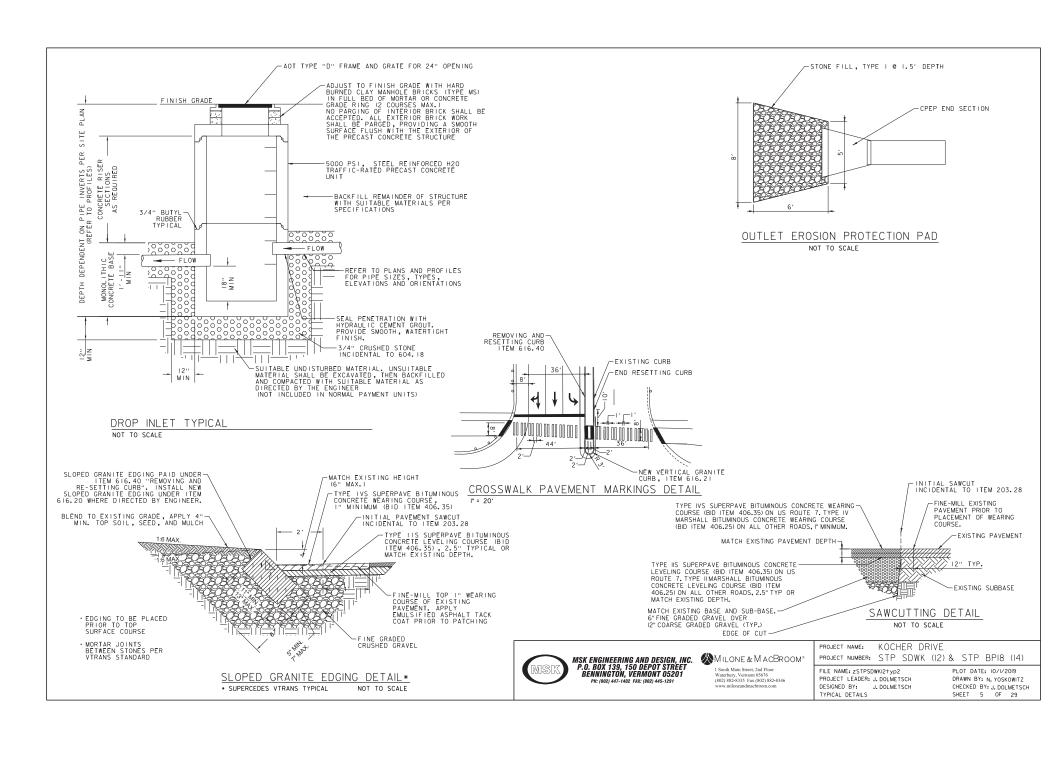
FILE NAME: zSTPSDWKI2\_legend PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH LEGEND

PLOT DATE: 10/1/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 3 OF 29



TYPICAL DETAILS

SHEET 4 OF 29



	TUAUS	TITY	SHEET 1			
SUMMARY OF ESTIMATED QUANTITIES	TOTALS	s	DESCRIPTIONS		DETAILED	SUMMARY OF QUANTITIES
ROADWAY BRIDGE FULL C.E. ITEMS (	BRIDGE ROUND GRAND TOTAL	FINAL U	NIT ITEMS	ITEM NUMBER	QUANTITIES UNIT	ITEMS
1	1	l	LS CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10		
643	643		CY COMMON EXCAVATION	203.15		
42	42		CY EXCAVATION OF SURFACES AND PAVEMENTS	203.28		
3520	3520		CY EARTH BORROW	203.30		
185	185		CY TRENCH EXCAVATION OF EARTH	204.20		
1680	1680		SY FINE-MILLING, BITUMINOUS PAVEMENT	210.12		
710	710		CY SUBBASE OF CRUSHED GRAVEL, FINE-GRADED	301.26		
350	350		ON MARSHALL BITUMINOUS CONCRETE PAVEMENT	406.25		
100	100		ON SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	406.35		
19	19			601.2610		
270	270		LF 18" CPEP (SL)	601.2615		
	1		ACH 18" CPEPES	601.7015		
2	2	E/	ACH PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18		
2	2		CY STONE FILL, TYPE I	613.10		
20	20		LF GRANITE SLOPE EDGING	616.20		
223	223		LF VERTICAL GRANITE CURB	616.21		
20	20		LF CAST-IN PLACE CONCRETE CURB, TYPE B	616.28		
220	220		LF REMOVING AND RESETTING CURB	616.40		
74	74		LF REMOVAL OF EXISTING CURB	616.41		
60	60		SY PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10		
160	160		SE DETECTABLE WARNING SLIREAGE	618 30		
24	24		LF CHAIN LINK FENCE, 6 FEET	620.12		
27	24					
	1		ACH MANUFACTURED TERMINAL SECTION, FLARED	621.50		
3	3		ACH MANUFACTURED TERMINAL SECTION, TANGENT	621.51		
	2	EA	ACH GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I	621.70		
250	250	- 1	LF REMOVE AND RESET GUARDRAIL	621.75		
340	340		LF REMOVAL AND DISPOSAL OF GUARDRAIL	621.80		
70	70	EA	ACH REMOVAL AND DISPOSAL OF GUIDE POSTS	621.81		
20	20	EA	ACH GUIDE POSTS	621.85		
160	160	Н	RS UNIFORMED TRAFFIC CONTROL OFFICERS	630.10		
160	160		RS FLAGGERS	630.15		
	1		LS MOBILIZATION / DEMOBILIZATION	635.11		
	1		LS TRAFFIC CONTROL, ALL-INCLUSIVE	641.11		
	050					
960	950		· ·	646.423		
495	495		LF DURABLE 6 INCH YELLOW LINE, EPOXY PAINT	646.433		
54	54		LF DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483		
20	20		ACH DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493		
232	232		LF DURABLE CROSSWALK MARKING, EPOXY PAINT	646.503		
65	65	1	LB SEED	651.15		
952	952		LB FERTILIZER	651.18		

PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

FILE NAME: ZSTPSDWKI2\_qty
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
OUANTITY SHEET (I)

PLOT DATE: 10-1-2019
DRAWN BY: N. YOSKOWITZ
CHECKED BY: J. DOLMETSCH
SHEET 6 OF 29

												QL	JA	<u>TM</u>	IT'	<u>Y</u> S	SHEET 2				
		SUI	MMARY	OF ESTI	MATED Q	UANTITIES								TOTALS	3		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES
CONTROL		ON BRIDGE	FULL C.E. ITEMS	BRIDGE QUANTITY	ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS								
								6	06					606		CY	TOPSOIL	651.35			
								14	16					1416		SY	ROLLED EROSION CONTROL PRODUCT, TYPE 1	653.20			
									,					2		EACH	INLET PROTECTION DEVICE, TYPE II	653.41			
								5	35		-			535		LF	SILT FENCE, TYPE 1	653.475			
								2	!0					20		SF	TRAFFIC SIGNS, TYPE A	675.20			
								6	0			-		60		LF	SQUARE TUBE SIGN POSTS AND ANCHOR	675.341			
														3		EACH		675.50			
											_			3			REMOVING SIGNS				
									1					1		EACH	RESETTING SIGNS	675.60			
								3	70					370		LF	ELECTRICAL CONDUIT	678.21			
								5	10					519		LF	WIRED CONDUIT	678.23			
								3	67		_			367		LF	ELECTRICAL WIRING	678.24			
									8					8		EACH	JUNCTION BOX	678.26			
								3	41					341		LF	SPECIAL PROVISION (HORIZONTAL DIRECTIONAL DRILLING - 10" LITH ITY SLEEVE)	900 640		-	
																		900.6450			
									1					1		LS				-	
									1					1		LS	SPECIAL PROVISION (HYDRANT EXTENSION)	900.6451			
		-				-		-	1		_			1		LS	SPECIAL PROVISION (PREFABRICATED PEDESTRIAN BRIDGE SUPERSTRUCTURE)	900.6452			
									1					1		LS	CDECIAL DROVICION ( VIDEO DETECTION ZONE AD ILICTMENT )	900.6453			
														'		1	SPECIAL PROVISION ( VIDEO DETECTION ZONE ADJUSTMENT ) ( VT 7A & BENMONT AVENUE )				
									1					1		LS	SPECIAL PROVISION ( VIDEO DETECTION ZONE ADJUSTMENT ) ( US 7 & KOCHER DRIVE	900.6454			
									1					1		LS	SPECIAL PROVISION ( PEDESTRIAN SIGNAL EQUIPMENT ) ( VT 7A & BENMONT AVENUE )	900.6455			
									1					1		LS	SPECIAL PROVISION ( PEDESTRIAN SIGNAL EQUIPMENT ) ( US 7 & KOCHER DRIVE )	900.6456			
									'							- 23	SPECIAL PROVISION (PEDESTRIAN SIGNAL EQUIPMENT) ( 03 / & ROCHER DRIVE)	300.0430			
							_				_										
												1	1								
												_									
											1										
																-					
										+		-	1			1		-	-	+ +	
		-									+	<del>                                     </del>	-								
										-						<b>—</b>				+	
													1			1					

PROJECT NAME: KOCHER DRIVE
PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

FILE NAME: ZSTPSDWKIZ\_qty
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
QUANTITY SHEET (2)

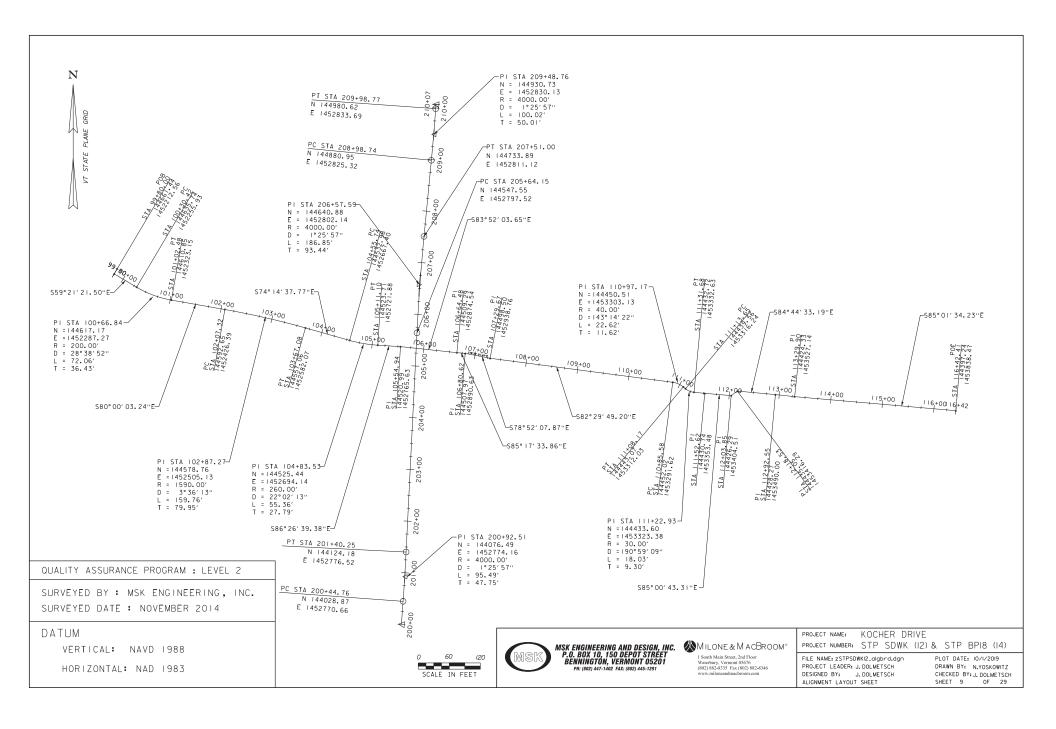
PLOT DATE: 10-1-2019
DRAWN BY: N. YOSKOWITZ
CHECKED BY: J. DOLMETSCH
SHEET 7 OF 29

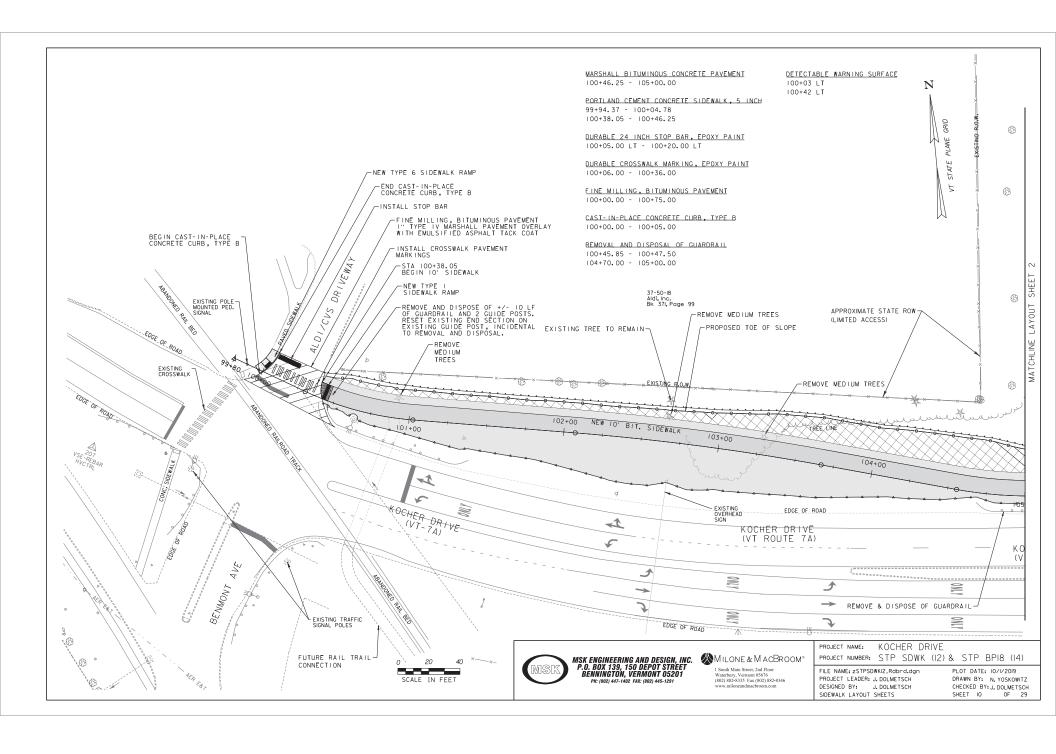
												DIVII	DGL	<u>. W</u> U	HIA I	<u> </u>	0	HEET 1			
SUMMARY OF ESTIMATED QUANTITIES											TOTALS			DESCRIPTIONS	DETAILED SUMMARY OF QUANTITIES						
										APPSLAB 1	ABUTMENT 1	SUPERSTRUCTURE	ABUTMENT 2	APP SLAB 2	BRIDGETOTAL		UNIT	ITEMS	ITEM NUMBER	QUANTITIES UNIT	ITEMS
	-										60		55		115			STRUCTURE EXCAVATION	204.25		
											40		40		80			GRANULAR BACKFILL FOR STRUCTURES	204.30		
											1750		1750		3500		LB	REINFORCING STEEL, LEVEL 1	507.11		
											18		18		36		CY	CONCRETE, CLASS B	541.25		
	-		-				 														
_																					
						-															
	+																				
	-		-		-	-	 -		 -						-						
			_																		
				_		-		_								_					
						-															
		-																			
	-																				
	-											-									
	-																				
	-																				
						_															
_																					
												+									

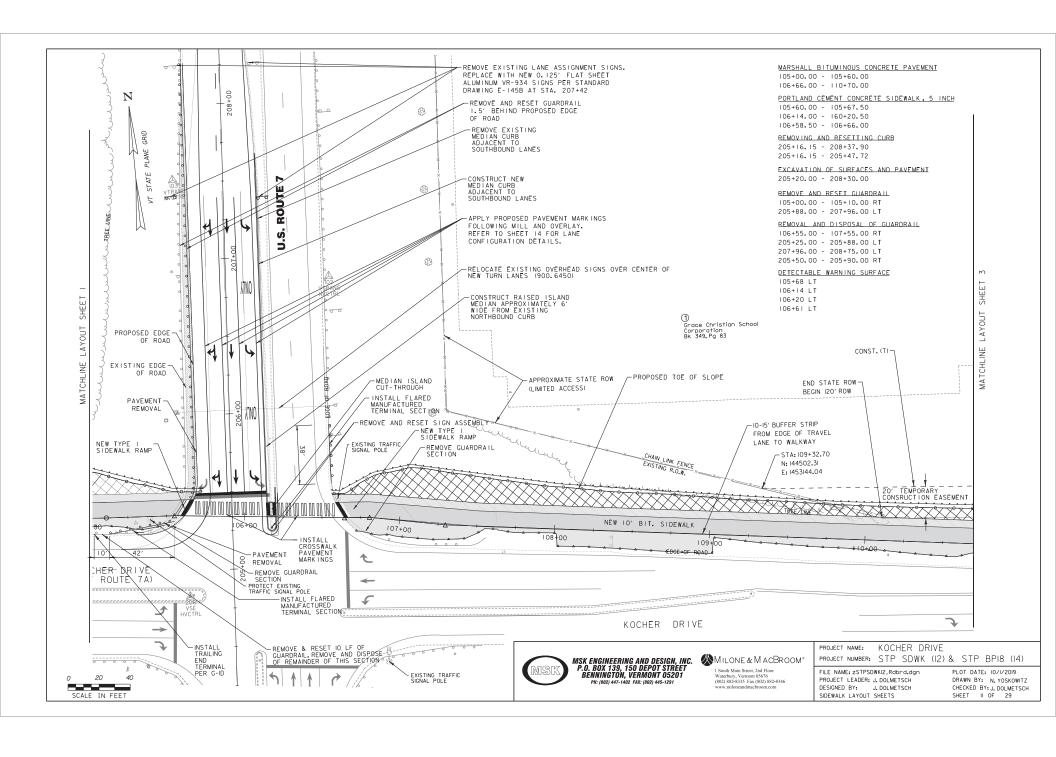
PROJECT NUMBER: STP SDWK (I2) & STP BPI8 (I4)

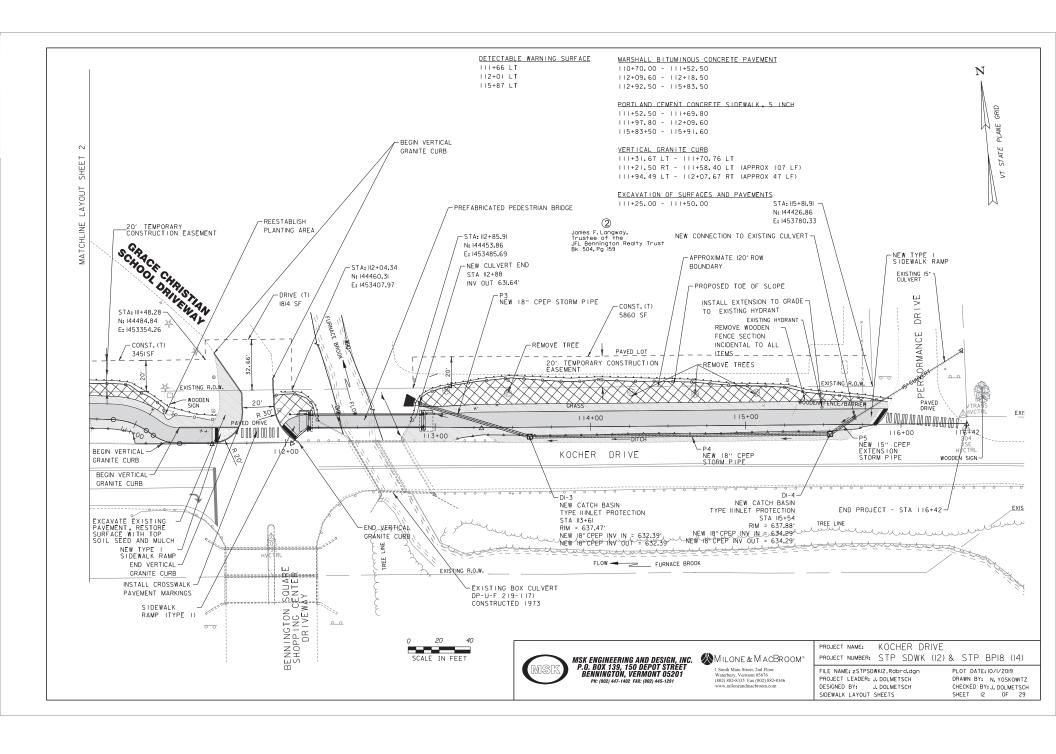
FILE NAME: ZSTPSDWKIZ\_qty
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
BRIDGE QUANTITY SHEET (I)

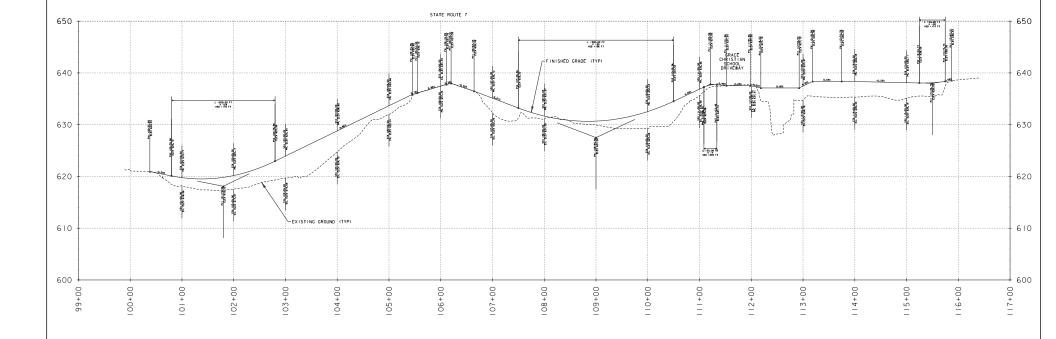
PLOT DATE: 10-1-2019
DRAWN BY: N. YOSKOWITZ
CHECKED BY: J. DOLMETSCH
SHEET 8 OF 29













PH: (802) 447-1402 FAX: (802) 445-1291

1 South Main Street, 2nd Floor Waterbury, Vermont 05676 (802) 882-8335 Fax (802) 882-8346 www.miloneandmacbroom.com

PROJECT NAME: KOCHER DRIVE PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

OFFSET

FILE NAME: zSPSDWKI2\_prf PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH SIDEWALK PROFILE

SURFACE

Kocher\_Survey 10.0000 Times Ver. 1.0000 Times Hor.

LINE

Scaled Scaled

PLOT DATE: IO/I/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET I3 OF 29

DURABLE 6 INCH WHITE LINE - DASH, EPOXY PAINT 207+42.00 - 209+80.00

DURABLE 24 INCH STOP BAR, EPOXY PAINT 205+49.71 LT & RT

DURABLE 6 INCH WHITE LINE - SOLID, EPOXY PAINT 205+15.91 LT - 209+82.14 LT

FINE MILLING, BITUMINOUS PAVEMENT 205+20 - 209+80

205+45,85 RT - 207+42 RT 205+48.01 - 207+42

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT

DURABLE 6 INCH YELLOW LINE, EPOXY PAINT

205+20 - 209+80

205+20 RT - 209+80 RT 205+20 RT - 205+52 RT

DURABLE CROSSWALK MARKING, EPOXY PAINT

DURABLE LETTER OR SYMBOL, EPOXY PAINT

205+31.58 RT - 205+41.20 RT

205+54.00

205+54.00 RT

205+54.00 LT

205+94,50 RT 206+34.83 RT

206+34.83

206+34.83 LT

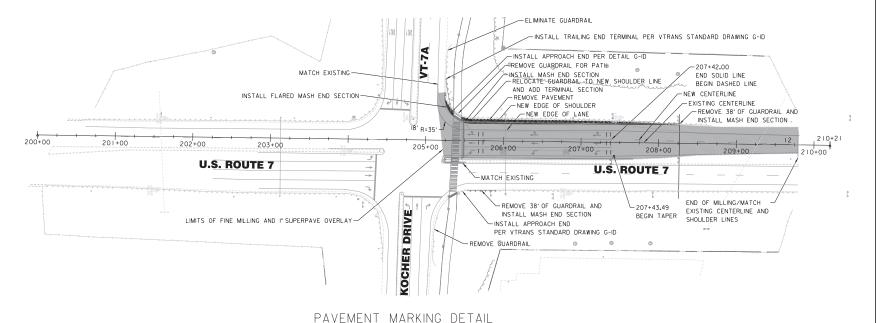
206+75,33 RT

207+15.67 RT

207+15.67

207+15.67 LT

205+34.03 RT - 205+44.24 LT











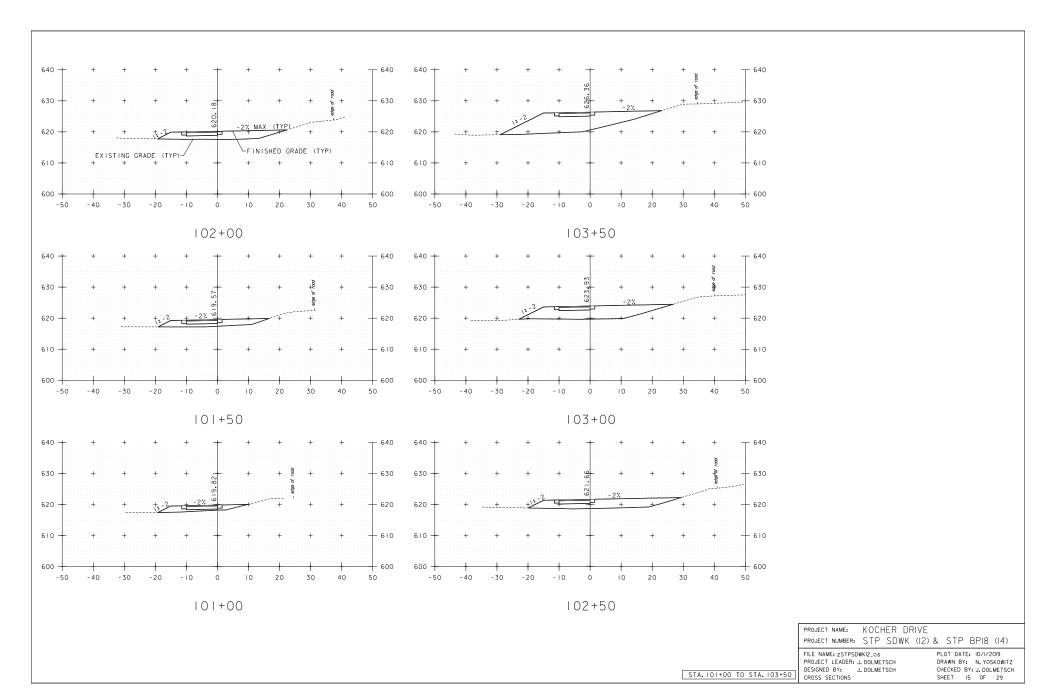
PROJECT NUMBER: STP SDWK (I2) & STP BPI8 (I4) FILE NAME: zSTPSDWKI2\_rddetl.dgn PROJECT LEADER: J. DOLMETSCH

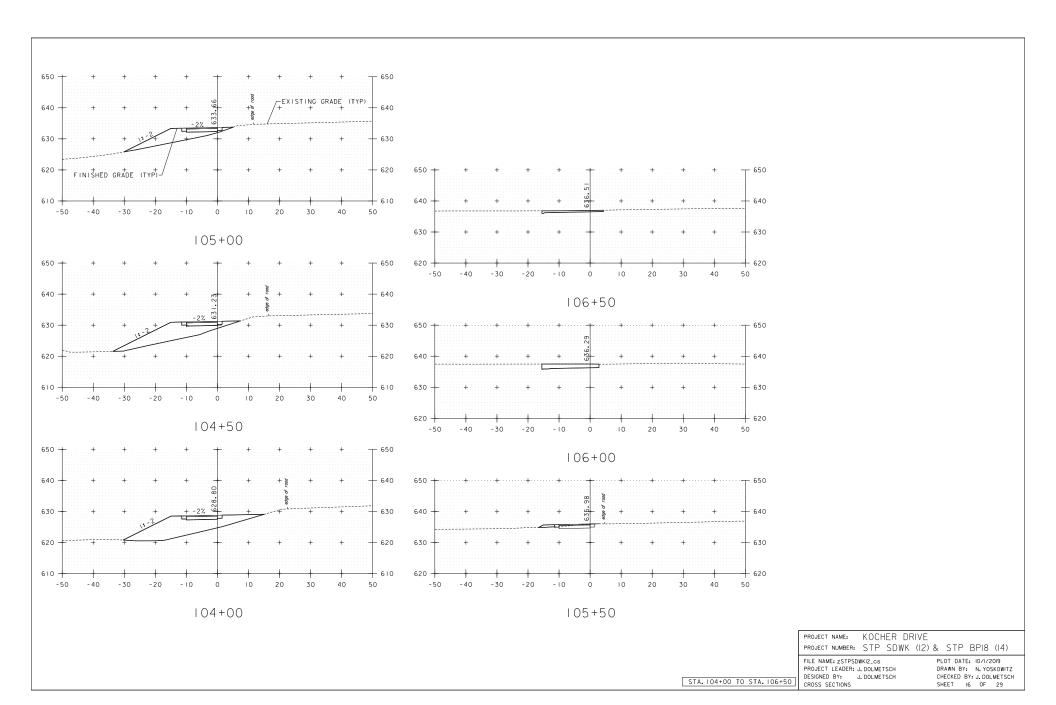
KOCHER DRIVE

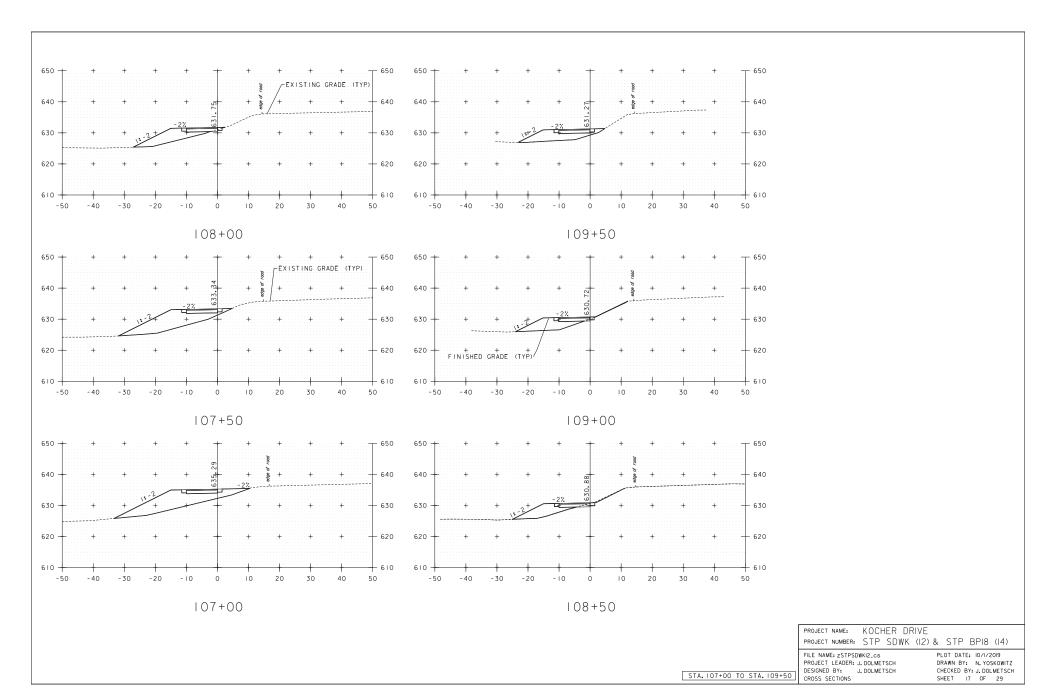
DESIGNED BY: J. DOLMETSCH PAVEMENT MARKING DETAIL

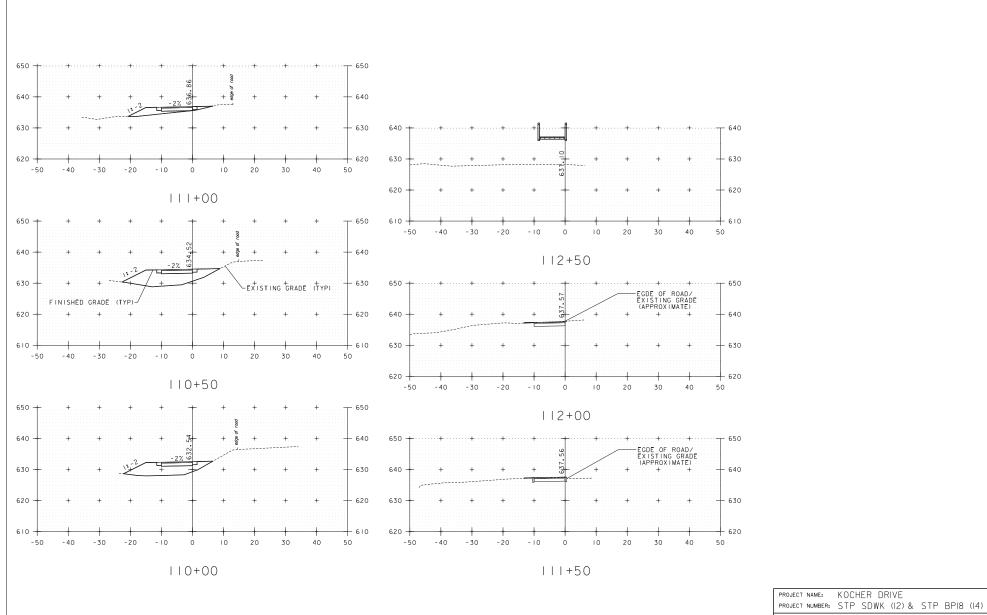
PROJECT NAME:

PLOT DATE: 10/1/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 14 OF 29





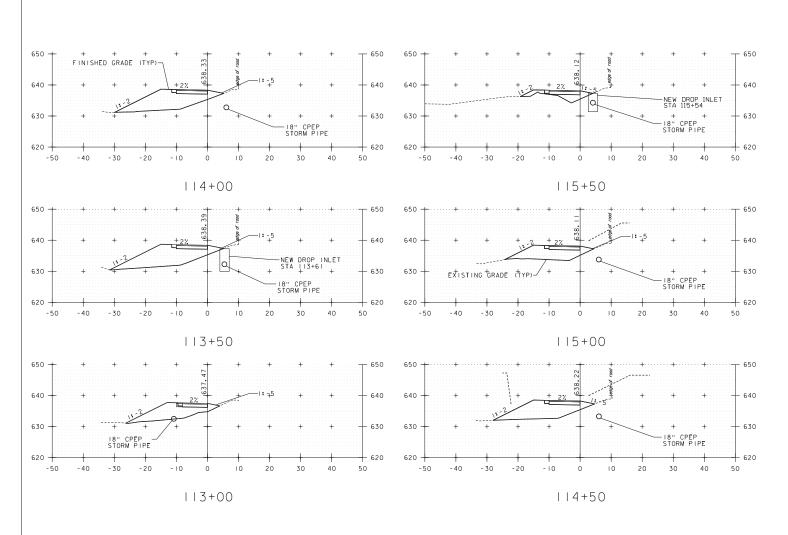




STA. ||0+00 TO STA. ||2+50

FILE NAME: zSTPSDWKI2\_cs PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH CROSS SECTIONS

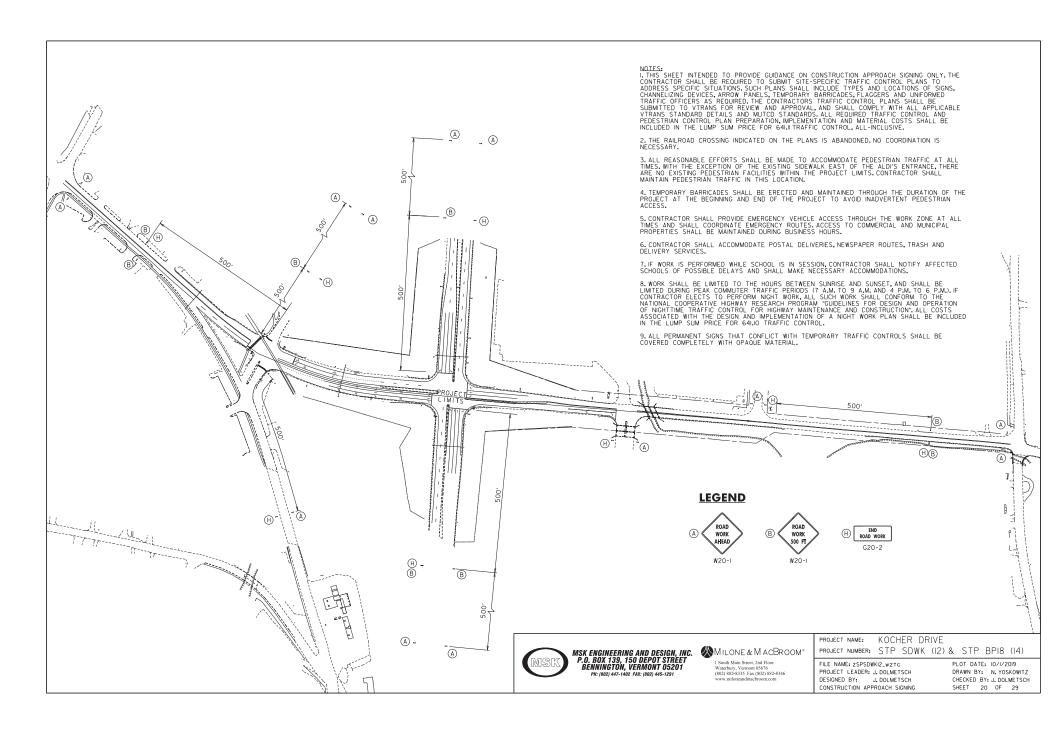
PLOT DATE: 10/1/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 18 OF 29

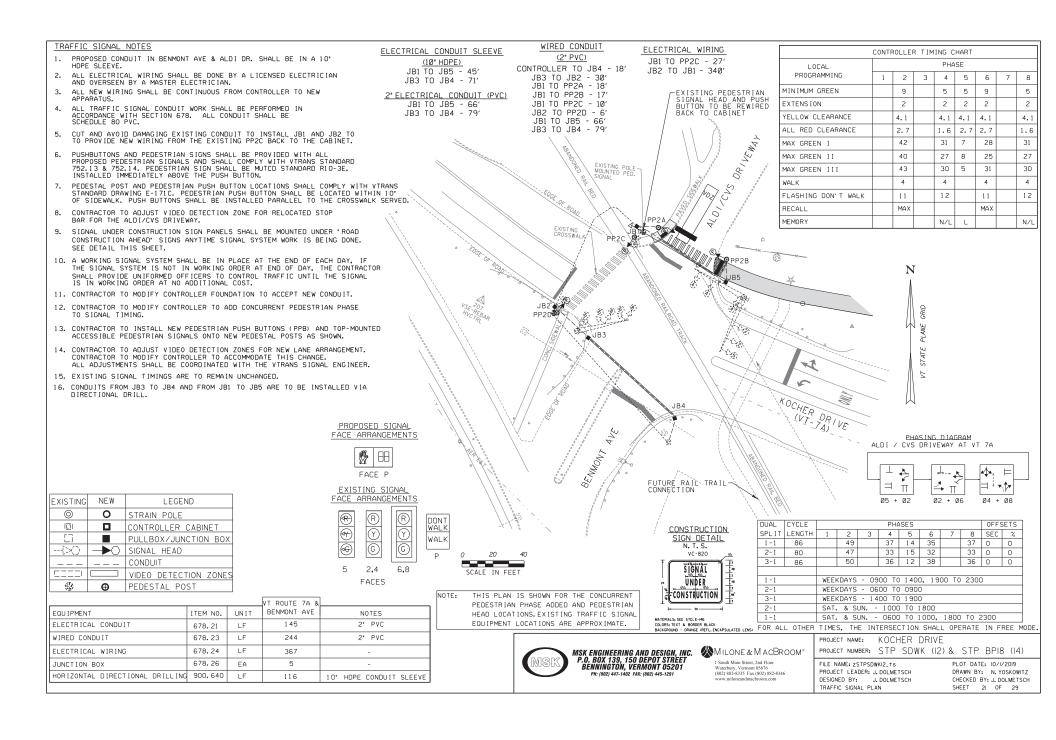


PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

FILE NAME: ZSTPSDWKI2.cs
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
CROSS SECTIONS

PLOT DATE: IO/I/2019
DRAWN BY: N. YOSKOWITZ
CHECKED BY: J. DOLMETSCH
SHEET 19 OF 29





	CONTR	ROLLER	R TIM	ING C	HART									
LOCAL	PHASE													
PROGRAMMING	1	2	3	4	5	6	7	8						
MINIMUM GREEN	8	8	5	8	8	8	5	8						
EXTENSION	2	2	2	2	2	2	2	2						
YELLOW CLEARANCE	4.8	4.8	4.1	4.1	4.8	4.8	4.1	4.1						
ALL RED CLEARANCE	1.5	1.5	2.1	2.1	1.5	1.5	2.1	2.1						
MAX GREEN I	13	9	9	45	8	13	8	45						
MAX GREEN II	15	14	9	44	15	1 4	9	44						
MAX GREEN III	20	9	15	47	16	13	16	46						
ADVANCED PEDESTRIAN				5.0										
WALK				5.0										
FLASHING DON'T WALK				35										
RECALL														
MEMORY	L	L	L	L	L	L	L	L						

	VT ROUTE 7A /			
EQUIPMENT	ITEM NO.	UNIT	U.S. ROUTE 7	NOTES
ELECTRICAL CONDUIT	678.21	LF	225	2" PVC
WIRED CONDUIT	678.23	LF	275	2" PVC
JUNCTION BOX	678.26	EA	3	-
HORIZONTAL DIRECTIONAL DRILLING	900.640	LF	225	10" HDPE CONDUIT SLEEVE

CONSTRUCTION SIGN DETAIL

N. T. S.

VC-820

TENAL

UNDER

MATERIALS: SEE STOLE-46 COLORS: TEXT & BORDER BLACK BACKGROUND - ORANGE (REFL. EN ELECTRICAL CONDUIT SLEEVE (10" HDPE)

JB1 TO JB2 - 103' JB1 TO JB3 - 122'

2" ELECTRICAL CONDUIT (PVC)

JB1 TO JB2 - 103' JB1 TO JB3 - 122' WIRED CONDUIT

JB1 TO JB2 - 103' JB1 TO JB3 - 122'

JB1 TO PP1A - 6' CONTROLLER TO JB2 - 30' JB3 TO PP1B - 8'

# THIS INTERSECTION SHALL OPERATE IN FREE MODE.

# TRAFFIC SIGNAL NOTES

- PROPOSED CONDUIT IN ROUTES 7 & 7A SHALL BE IN A 10 HDPE SLEEVE AND SHALL BE INSTALLED BY DIRECTIONAL BORING.
- ALL ELECTRICAL WIRING SHALL BE DONE BY A LICENSED ELECTRICIAN AND OVERSEEN BY A MASTER ELECTRICIAN.
- ALL NEW WIRING SHALL BE CONTINUOUS FROM CONTROLLER TO NEW APPARATUS.
- 4. ALL TRAFFIC SIGNAL CONDUIT WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 678. ALL CONDUIT SHALL BE SCHEDULE 80 PVC.
- 5. ADJUST VIDEO DETECTION ZONES FOR THE NEW SOUTHBOUND LEG LANE ARRANGEMENT. VIDEO DETECTION ZONES SHOWN ON THIS PLAN ARE FOR ILLUSTRATION ONLY, FIELD ADJUSTMENTS ARE REQUIRED.
- 6. PULLBOXES / JUNCTION BOXES ARE DETAILED ON STD E-173 AND SHALL CONTAIN THE LOGO 'TRAFFIC SIGNAL'.
- 7. PUSHBUTTONS AND PEDESTRIAN SIGNS SHALL BE PROVIDED WITH ALL PROPOSED PEDESTRIAN SIGNALS AND SHALL COMPLY WITH VTRANS STANDARD SPECIFICATIONS 752.13 & 752.14. PEDESTRIAN SIGN SHALL BE MUTCD STANDARD R10-3E, INSTALLED IMMEDIATELY ABOVE THE PUSH BUTTON.
- 8. PEDESTAL POST AND PEDESTRIAN PUSH BUTTON LOCATIONS SHALL COMPLY WITH VITANS STANDARD DRAWING E-17IC. PEDESTRIAN PUSH BUTTON SHALL BE LOCATED WITHIN 10° OF SIDEWALK. PUSH BUTTONS SHALL BE INSTALLED PARALLEL TO THE CROSSWALK SERVED.
- SIGNAL UNDER CONSTRUCTION SIGN PANELS SHALL BE MOUNTED UNDER "ROAD CONSTRUCTION AHEAD" SIGNS ANYTIME SIGNAL SYSTEM WORK IS BEING DONE. SEE DETAIL THIS SHEET.
- 10. A WORKING SIGNAL SYSTEM SHALL BE IN PLACE AT THE END OF EACH DAY, IF THE SIGNAL SYSTEM IS NOT IN WORKING ORDER AT END OF DAY, THE CONTRACTOR SHALL PROVIDE UNIFORMED OFFICERS TO CONTROL TRAFFIC UNTIL THE SIGNAL IS IN WORKING ORDER AT NO ADDITIONAL COST.
- 11. CONTRACTOR TO MODIFY CONTROLLER FOUNDATION TO ACCEPT NEW CONDUIT.
- 12. CONTRACTOR TO MODIFY CONTROLLER TO ADD CONCURRENT PEDESTRIAN PHASE TO SIGNAL TIMING.
- 13. CONTRACTOR TO INSTALL NEW PEDESTRIAN PUSH BUTTONS (PPB) AND TOP-MOUNTED ACCESSIBLE PEDESTRIAN SIGNALS ONTO NEW PEDESTAL POSTS AS SHOWN.
- 14. CONTRACTOR TO ADJUST VIDEO DETECTION ZONES FOR NEW LANE ARRANGEMENT. CONTRACTOR TO MODIFY CONTROLLER TO ACCOMMODATE THIS CHANGE. ALL ADJUSTMENTS SHALL BE COORDINATED WITH THE VIRANS SIGNAL ENGINEER.
- 15. EXISTING SIGNAL TIMINGS ARE TO REMAIN UNCHANGED.
- 16. CONDUITS FROM JBI TO JB2 AND FROM JBI TO JB3 ARE TO BE INSTALLED VIA DIRECTIONAL DRILL.

### (3) EXISTING NEW LEGEND 0 0 STRAIN POLE CONTROLLER CABINET NDZ NDZ EXISTING TRAFFIC SIGNAL POLE PULLBOX/JUNCTION BOX -(><) SIGNAL HEAD CONDUIT VIDEO DETECTION ZONES 靈 PEDESTAL POST PP1A →® $\oplus$ A 19 0 N €PP1B KOCHER DRIVE (VT ROUTE 7A)-1-15 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* VDZ PROTECT EXISTING TRAFFIC SIGNAL POLE VDZ VDZ STATEVDZ ! VDZ 177 5 VDZ (4) --(4)×2 JB2 EXISTING TRAFFIC SIGNAL POLE VDZ VDZ VDZ VDZ THIS PLAN IS SHOWN FOR THE CONCURRENT PEDESTRIAN PHASE ADDED, PEDESTRIAN HEAD LOCATIONS AND THE REQUIRED ADJUSTMENTS OF VIDEO DETECTION ZONES. EXISTING TRAFFIC SIGNAL EQUIPMENT LOCATIONS ARE ROUT APPROXIMATE. v j 20 NON-POWER SERVICE CONDUIT ENTERS POLE THROUGH EXISTING GROUT AND UNDER BASE PLATE, REGROUT AREA AFTER CONDUIT IS IIn SCALE IN FEET PROJECT NAME: KOCHER DRIVE PROJECT NUMBER: STP SDWK (12) & STP BP18 (14) MILONE & MACBROOM® MSK ENGINEERING AND DESIGN. INC.

# EXISTING SIGNAL FACE ARRANGEMENTS



PROPOSED SIGNAL FACE ARRANGEMENTS



CONDUIT INSTALLATION
WITH EXISTING BASE
(NOT TO SCALE)



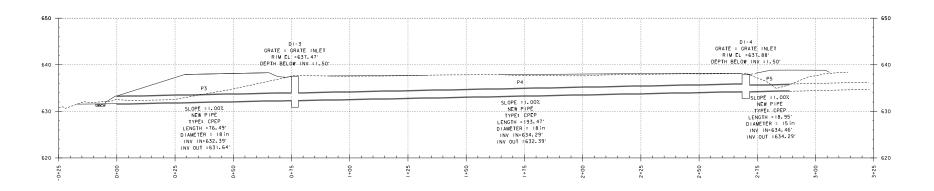
NILONE & MACBROOM

1 South Main Street, 2nd Floor
Waterbury, Vermont 05676
(802) 882-8335 Fax (802) 882-8346

FILE NAME: zSTPSDWKI2\_†s
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
SIGNAL PLAN

PLOT DATE: IO/I/2019 DRAWN BY: N.YOSKOWITZ CHECKED BY: J.DOLMETSCH SHEET 22 OF 29





LINE	SURF ACE	OFFSET
	Kocher_Comb	ined 0.00
Scaled Scaled		imes Ver. imes Hor.





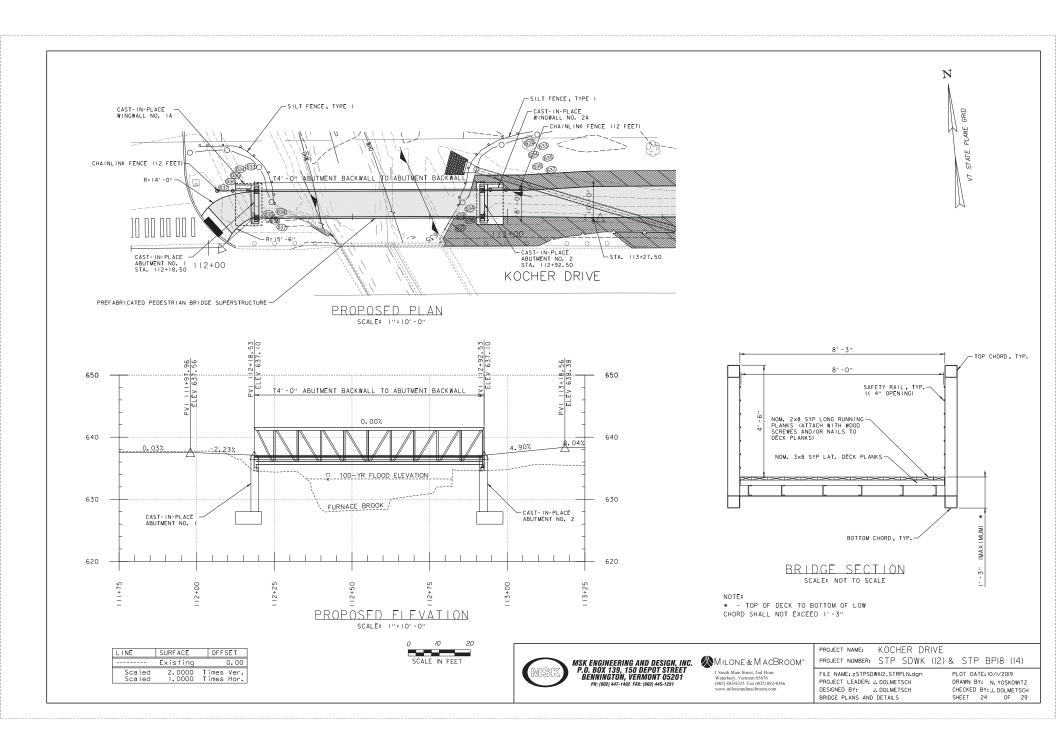
l South Main Street, 2nd Floor Waterbury, Vermont 05676 (802) 882-8335 Fax (802) 882-8346 www.miloneandmacbroom.com

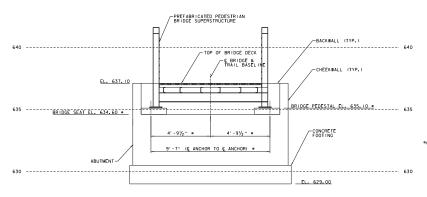
PROJECT NAME: KOCHER DRIVE

PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

FILE NAME: ZSTPSDWKI2\_drn
PROJECT LEADER: J. DOLMETSCH
DESIGNED BY: J. DOLMETSCH
DRAINAGE PROFILES

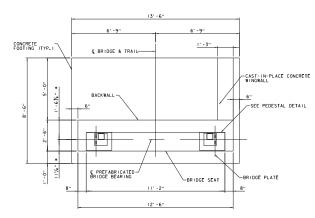
PLOT DATE: IO/I/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 23 OF 29







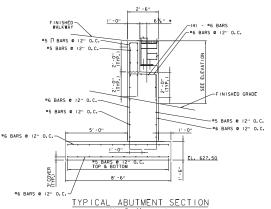
# TYPICAL ABUTMENT ELEVATION SCALE: 1/2 "= 1' - 0"

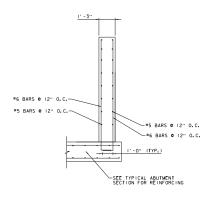


TYPICAL ABUTMENT PLAN SCALE: 1/2"=1'-0"

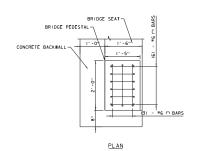
NUIES

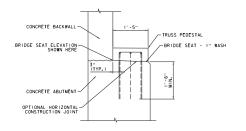
- DIMENSION SHALL BE UPDATED DURING
PREFABRICATED PEDESTRIAN BRIDGE SUPERSTRUCTURE
SHOP DRAWING REVIEW





TYPICAL WINGWALL SECTION SCALE: 1/2 "= 1' - 0"





SECTION

# TYPICAL ABUTMENT PEDESTAL REINFORCING SCALE: 1/4 "=1'-0"

MSK ENGINEERING AND DESIGN, INC.
P.O. BOX 139, 150 DEPOT STREET
BENNINGTON, VERMONT 05201

Not be the control of the control o



#5 BARS (3' x 3')

WINGWALL OR CHEEKWALL REINFORCEMENT

TYPICAL ABUTMENT PEDESTAL REINFORCING
SCALE: 1/4 "=1'-0"

1 South Main Street, 2nd Floor Waterbury, Vermont 05676 (802) 882-8335 Fax (802) 882-8346 www.miloneandmacbroom.com

PROJECT NAME: KOCHER DRIVE PROJECT NUMBER: STP SDWK (I2) & STP BPI8 (I4)

FILE NAME: zSTPSDWKI2\_STRDET.dgn PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH BRIDGE PLANS AND DETAILS

PLOT DATE: 10/1/2019 DRAWN BY: N. YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 25 OF 29

# GENERAL STRUCTURAL NOTES

- 1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, ACENCY OF TRANSPORTATION, 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE ASSITO LEFOR REVISIONS.
- 2. BRIDGE DESIGN SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2010 STRUCTURES DESIGN MANUAL, AND AASHTO STANDARD SPECIFICATION ALLOHABLE STRESS DESIGN (ASD).
- 3. THE PRE-FABRICATED BRIDGE SHALL BE DESIGNED FOR MAXIMUM PEDESTRIAN LIVE LOAD OF 90 PSF.
- 4. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS AS SHOWN IN THE REFERENCE PLANS.
- 5. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT UNLESS OTHERWISE NOTED.
- . DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DRAWINGS AND FIELD MEASUREWENTS. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.

# STRUCTURAL STEEL

- 1. SITE CONDITIONS AND GEOMETRY OF THE BRIDGE MAY CONTRIBUTE TO DIFFICULTIES IN ERECTING THE PRE-FABRICATED BRIDGE. THE CONTRACTOR IS REQUIRED TO VISIT THE SITE PRIOR TO BIDDING TO DETERMINE ANY COMPLICATIONS THAT MAY ARISE WHEN SETTING THE BRIDGE.
- 2. STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50.
- 3. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- 4. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10.
- 5. ENDS OF BEAMS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOAD.

#### HIGH STRENGTH BOLTS

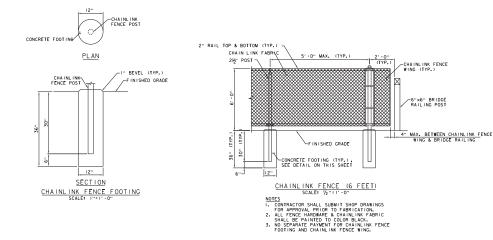
- 1. UNLESS NOTED OTHERWISE, ALL FASTENERS SHALL BE ASTM A325 HIGH-STRENGTH BOLTS (GALVANIZED). THE NUTS SHALL BE ASTM A563 AND WASHERS SHALL BE ASTM FATE.
- 2. ALL BOLT HOLES SHALL BE STANDARD-SIZED UNLESS OTHERWISE NOTED.

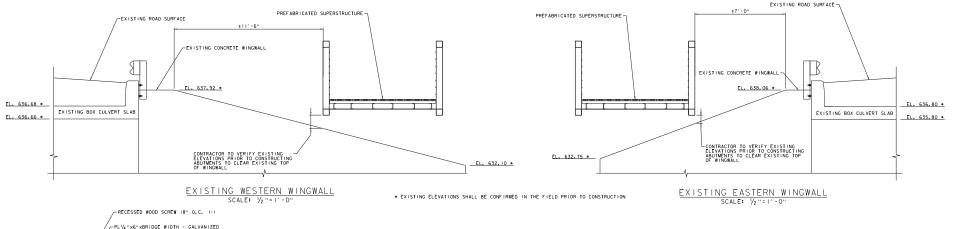
#### ERECTION

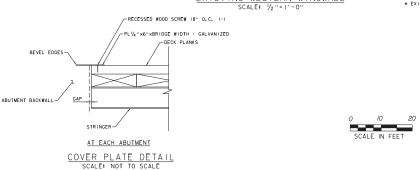
1. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS SELF SUPPORTING.

# STRUCTURAL SUBMITTALS

- I. REINFORCING STEEL SHOP DRAWINGS
- 2. PREFABRICATED PEDESTRIAN BRIDGE SUPERSTRUCTURE SHOP DRAWINGS AND CALCULATIONS
- 3. FENCE SHOP DRAWINGS











1 South Main Street, 2nd Floor Waterbury, Vermont 05676 (802) 882-8335 Fax (802) 882-8346 www.miloneandmacbroom.com PROJECT NAME: KOCHER DRIVE

PROJECT NUMBER: STP SDWK (I2) & STP BPI8 (I4)

FILE NAME: zSTPSDWKIZ\_STRDET.dgn PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH BRIDGE PLANS AND DETAILS PLOT DATE: IO/I/2019
DRAWN BY: N. YOSKOWITZ
CHECKED BY: J. DOLMETSCH
SHEET 26 OF 29

# **RIGHT - OF - WAY DETAIL SHEET**

TABLE OF PROPERTY ACQUISITION										TABLE OF REVISIONS							
PARCEL NO.	PROPERTY OWNER	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKE	REMAINDER						RECORDING DATA		REMARKS	REVISION NO.	ROW SET	DESCRIPTION
	GRACE CHRISTIAN SCHOOL CORPORATION		109+32.70	111+48.28	AREA±	AREA±	TYPE CONSTRUCTION (T)	T / P (T)	AREA ± 3451 SF	TITLE	DATE	TOWN / CITY	BOOK PAGE			SHEET#	
	GRACE CHRISTIAN SCHOOL CORPORATION			112+04.34			DRIVE (T)							RIGHT TO CONSTRUCT DRIVEWAY, INSTALL CURB			
																=	
2	JAMES F. LANGWAY, TRUSTEE OF THE JFL BENNINGTON REALTY TRUST	12	112+85.91	115+81.91			CONSTRUCTION (T)	(T)	5860 SF								
																$\perp$	
		_															
		-									-					-	
		_			-			-									
					1			1								<u> </u>	
																-	
				-	_	-									-	<del>                                     </del>	
																=	
																<del>                                     </del>	
		-						-									
																+-	
																_	
								_									
																+-	
					-											+-	
			_													$\vdash$	
					1				1								
	+	-	-	-	-	-	-	-	-	-	-	-	-				

REVISION NO.	ROW SET SHEET#	DESCRIPTION	DATE		
			-		
			-		
			-		
			-		
			-		
			1		

PROJECT NAME: KOCHER DRIVE

PROJECT NUMBER: STP SDWK (12) & STP BP18 (14)

FILE NAME: ZSTPSDWKI2\_row PROJECT LEADER: J. DOLMETSCH DESIGNED BY: J. DOLMETSCH RIGHT-OF-WAY ACQUISITIONS

PLOT DATE: IO/I/2019 DRAWN BY: N, YOSKOWITZ CHECKED BY: J. DOLMETSCH SHEET 27 OF 29

