

WATER SHALL BE DIVERTED OFF THE DISTURBED RIGHT-OF-WAY AT AN OUTSLOPE OF TO FIVE PERCENT BY CONSTRUCTING DIVERSION DITCH ACCORDING TO THE FOLLOWING PROCEDURES:

- 1. AT THE PROPOSED INTERCEPTOR DITCH LOCATION ESTABLISH A HORIZONTAL CONT LINE (USING A POCKET TRANSIT OR HAND LEVEL) WHICH EXTENDS COMPLETELY ACROSS THE DISTURBED RIGHT-OF-WAY. THIS LINE WILL ALWAYS BE PERPENDIC TO THE DIRECTION OF WATER FLOW AND SHOULD BE PARALLEL TO THE MAP CONTOURS SHOWN ON THE PLAN DRAWINGS.
- 2. DETERMINE WHICH SIDE OF THE RIGHT-OF-WAY IS BEST SUITED FOR THE DITCH OUTLET (EVALUATE VEGETATION DENSITY, LOCAL TOPOGRAPHY, ETC.) AND DEVIATE DIKE AWAY FROM THE HORIZONTAL CONTOUR LINE SLIGHTLY DOWNWARD TOWARD SELECTED OUTLET SIDE MAINTAINING A THREE TO FIVE PERCENT SLOPE. AS AN EXAMPLE, THE CHART AT THE RIGHT SHOWS DIMENSIONS ASSUMING A FOUR PERCE SLOPE.
- 3. WHEN OUTLETTING NEAR WATER BODIES, STREAMS, DITCHES, & CROP FIELDS, A FILTER FENCE OR STRAW BALE FENCE SHOULD BE PLACED ON OUTLET END OF THE DIVERSION DITCH.

TEMPORARY DRAINAGE DITCH

NOTES:

- 1. TEMPORARY DIVERSION DITCH SHOULD BE BUILT SIMILAR TO THE PERMANENT DITCH CONFIGURATION BUT THE DIMENSION CAN BE SCALED BACK.
- 2. MAXIMUM HEIGHT SHOULD BE 12" AND SHOULD BE COMPACTED. 3. SPACING BETWEEN DIVERSION DITCHES AND SKEW OF THE DIVERSION DITCHES CAN VARY
- FROM THE PERMANENT DIVERSION DITCHES. 4. WHEN CONSTRUCTING TEMPORARY DIVERSION DITCHES THEY SHOULD BE FUNCTIONAL, WHILE MAINLINE CONSTRUCTION IS PROCEEDING, UNTIL RESTORATION BEGINS AND PERMANENT

PERMANENT DIVERSION DITCH DETAIL SCALE: N.T.S.

DIVERSION DITCHES ARE THEN CONSTRUCTED.







	4% FLOV	V CHART
THREE	HORIZONTAL DISTANCE BETWEEN WATERBAR INLET & OUTLET (FEET)	ELEVATION DISTANCE BETWEEN WATERBAR INLET AND OUTLET (FEET)
ULAR	75	3
	100	4
-	125	5
THE	150	6
CENT	175	7

HORIZONTAL DISTANCE BETWEEN WATERBAR INLET & OUTLET (FEET)	ELEVATION DISTANCE BETWEEN WATERBAR INLET AND OUTLET (FEET)
75	3
100	4
125	5
150	6
175	7
100 125 150 175	4 5 6 7



SILT FENCE, HAYBALE, OR SUMP -----HOLE USED IN ABSENCE OF

VEGETATIVE BARRIER



2 MINIMAL HEIGHT & WIDTH DIMENSIONS FOR WATERBAR CONSTRUCTION SCALE: N.T.S.

TE OF NEW POL	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						S
D LUEL THE THE AND	ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						
	OR LAND SURVEYOR TO ALTER AN TIEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS						
	ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT]
103692	AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A						
POFESSIONAL	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION	MK	NH	
		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DF



Α



WETLAND AND AGRICULTURAL LANDS WORKING SURFACE PLAN - OPTION A NOT TO SCALE





NOTES:

- 1. UNDERCUT AND REMOVE TOP SOIL PRIOR TO PLACING GEOTEXTILE FABRIC.
- 2. A LAYER OF CLEAN CRUSHED STONE SHALL BE LAID ON TOP OF THE GEOTEXTILE FABRIC.
- 3. SUITABLE CROSS DRAINAGE SHALL BE PROVIDED ACROSS THE ROAD FOR STREAM CHANNELS AND SURFACE FLOW.
- REFER TO EM+CP PLANS FOR EROSION CONTROL DETAILS. 4. 5. WETLANDS AND AGRICULTURAL LANDS TO BE RESTORED IN ACCORDANCE WITH THE EM+CP.

GENERAL NOTES:

- 1. TIMBER:
- TIMBER SHALL BE SELECT STRUCTURAL MIXED OAK WITH A MINIMUM BENDING STRESS OF 1250 PSI OR BETTER.
- 2. CONTRACTOR TO VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCING WORK. ANY
- ERRORS, OMISSIONS, OR UNUSUAL CONDITIONS ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY. NONWOVEN GEOTEXTILE SHALL BE MIRAFI 180N OR EQUIVALENT APPROVED BY EOR.







WETLAND AND AGRICULTURAL LANDS WORKING SURFACE PLAN - OPTION B

NOTES:

C-613

- LAYERS TO BE DETERMINED ON SITE.
- AND VEHICLES FROM SLIDING OFF DURING MUDDY OR ICING CONDITIONS, AND PREVENT TIMBERS FROM BREAKING.
- AND AGRICULTURAL LAND DURING RAIN EVENTS. SEDIMENT APPROVED LOCATION.
- BE INSTALLED PRIOR TO PLACING TIMBER MATTING.
- UNLESS PERMITTED FROM REMOVAL, STUMPS WITHIN THE 6. WETLAND SHOULD REMAIN. THIS MAY REQUIRE ADDITIONAL TIMBERS TO BRIDGE ABOVE.
- MULCH SHOULD BE APPLIED.
- 8. 9. WETLANDS AND AGRICULTURAL LANDS TO BE RESTORED IN ACCORDANCE WITH THE EM+CP.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION		YL	CHA
	No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRAWN BY:



APPROVED BY: YL REV. NO.

0 SH.NO.

OF

DESIGNED BY:









TYPICAL TEMPORARY SHORING DETAILS SCALE: H: 1" = 5'

NOTE: KIEWIT POLICY REQUIRES CONSULTATION WITH THE KIEWIT TEMPORARY STRUCTURES / CONSTRUCTION DEVICES EOR PRIOR TO PROCUREMENT OF MATERIALS OR FIELD IMPLEMENTATION OF THIS DATA.

OF NEW FOR						CHAMPLAIN HUDSON POWER EXPRESS 21162
THE PART	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY					SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD BYPASS TO CATSKILL
	PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS					TYPICAL TEMPORARY SHORING DETAILS DRAWING NO.
101896-1 E	ALIERED, THE ALIERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A					C-614
FESSION	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023 ISSUED FOR CONSTRUCTION SUBMISSION	LY	LZ	
		No.	DATE SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRAWN BY:RJBDESIGNED BY:LYAPPROVED BY:LZSCALEAS SHOWNDATE09/29/2023REV. NO.GSH.NO.##OFXXX



I II IS A VIOLATION OF LAW FOR ANT FERSON, UNLESS THEF
ARE ACTING UNDER THE DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT
OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN
ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS
ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE
ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMEN
AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY
THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A
SPECIFIC DESCRIPTION OF THE ALTERATION.

					(
					SEC
]
0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION			
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRA







IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						SE
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						
OR LAND SURVEYOR TO ALLER AN TIEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS]
ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT]
AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A						
SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION			
	No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DF

2536 SHEET I

CROSSING TIMBER / WOOD FILLER. APPROXIMATE 8 FT. INCREMENTS. EACH "TRACK FOOT" INCLUDES AND 4 FILLER BLOCK PIECES.

					KIEWI	PROJECT NO.	
	IPLAIN HUL	JOUN POW		-KE22		21162	
EGMENT 1	0 (PACKAGE 6) - S	ELKIRK RAIL YAR	D BYPASS	TO CATSKILL			
	CSX CROS	SING DETAILS	1 OF 2		DRAWING NO.		
					С	-625	
			SCALE	AS SHOWN	DATE	09/29/2023	
RAWN BY:	DESIGNED BY:	APPROVED BY:	REV. NO.	0	SH NO	OF XXX	



CROSSING TIMBER PLAN VIEW





FIELD SIDE FILLER BLOCK DETAIL

RAIL WGT	А	В	С	D	E	F	G	Н
II5 RE	3⁄4	2 3/4	5 3/8	3 1/2	3 7/8	3 3/8	4	7 1/2
122 CB	3⁄4	2 3⁄4	5 5⁄8	3 1/2	4	3 5/8	4	7 1/2
132 RE	5⁄8	2 7/8	6	3 1/2	4 ¹ / ₂	3 7/8	3 7/8	8
136 RE	5⁄8	2 7⁄8	6 1/4	3 1/2	4 ¹ / ₂	3 7/8	3 7/8	8
140 RE	3⁄4	2 3/4	6 / ₁₆	3 1/2	4 ⁵ / ₁₆	3 7/8	4	8 3/8
I4I RE	11/16	2 13/16	6 ³ ⁄8	3 1/2	4 ¹ / ₂	3 7/8	3 7/8	8 ³ / ₈

ALL DIMENSIONS ARE IN INCHES.







GAGE SIDE FILLER BLOCK DETAIL

- I. TIMBERS ARE NOT PREDRILLED UNLESS SPECIFIED IN THE REQUISITION.
- 2. GAGE AND FIELD TIMBERS ARE IDENTICAL.
- 3. TOLERANCES: A, E, AND G : 1/16" +/-ALL OTHERS : $\frac{1}{8}$ +/-
- 4. CROSSING TIMBER TO BE OAK OR GUM. TREATMENT PER MW SPEC 99001 LIKE CROSSTIES
- 5. FILLER BLOCKS TO BE SOUTHERN YELLOW PINE GRADE 2 WITH IO LB / CU FT TREATMENT
- 6. TIMBERS & FILLERS TO BE MARKED FOR RAIL SIZE

SX TRANSPORTATION

TIMBER AND ASPHALT CROSSING CROSSING TIMBER AND FILLER BLOCK DETAILS

J. Kangych CHIEF ENGINEER APPROVED -MAINTENANCE OF WAY

ama W. Dayley - VICE PRESE ENGINEERING

PREPARED BY: J. E. BEYERL

ISSUED: MARCH 22, 2005 REVISED: NOVEMBER 14, 2005

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED						CHAM SEGMENT 10	PLAIN HUD (PACKAGE 6) - SI	SON POW	ER EXPI	RESS CATSKILL	KIEWIT	PROJECT NO. 21162
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS							CSX CROS	SING DETAILS	2 OF 2	-	DRA	WING NO.
ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIEL DESCRIPTION OF THE ALTERATION											C-	626
SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION									
	No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRAWN BY:	DESIGNED BY:	APPROVED BY:	SCALE REV. NO.	AS SHOWN 0	DATE SH.NO.	09/29/2023 OF XXX

TIMBER SCREW 4" <--- 2 ¹/₂" DIA 3⁄8" -II/_{I6}" DIA

CROSSING TIMBER SECTION AT SCREW LOCATION

2536 SHEET 2





Power Express

- METAL WEDGE SIGN MOUNT SHALL BE 2¹/₂" WIDE, WELDED IN THE CENTER OF THE GATE WITH HOLES DRILLED FOR THE ATTACHMENT OF NO TRESPASSING SIGN
- 2. SIGN SPECIFICATION IS FOUND IN STANDARD DRAWING 2703
- 3. ENTIRE GATE ASSEMBLY TO BE PAINTED AREMA YELLOW.
- 4. CSX SWITCH LOCK TO BE USED FOR GATE LOCK.

DESCRIPTION	UNITS	CLASS	ITEM NUMBER
GATE, RIGHT OF WAY, 12'	EACH	014	0409045
GATE, RIGHT OF WAY, 16'	EACH	014	0409043
GATE, RIGHT OF WAY, 20'	EACH	014	0409041
LOCK, SWITCH AMERICAN H10	EACH	450	0008580

RIGHT-OF-WAY SECURITY GATE

Ld Und - VICE PRESIDENT

ENGINEERING

ISSUED: JANUARY 10, 2011 REVISED : INITIAL ISSUE

	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						SE
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT	ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						
	OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS						
ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.							
	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION			
		No			DB		
						/ 11	DR/

2614

			KIEW	T PROJECT NO.			
	CHAIVIFLAIN HUDSUN FUVER EAFRESS						
EGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD BYPASS TO CATSKILL							
	,						
SECURITY GATE DETAIL					DI	RAWING NO.	
					C	-627	
			SCALE	AS SHOWN		09/29/2023	
RAWN BY:	DESIGNED BY:	APPROVED BY:	REV NO	<u></u> 0	SHNO	OF XXX	
				0		- 01 ////	





-1 1/2" ASPHALT CONCRETE TOP COURSE

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.						SEG	
						-	
	SI EGING DESCRIPTION OF THE RELERATION.	0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION			
		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRA



SCALE: N.T.S.

	2. 3.	ALL MATER APPLY STR	RIALS TO ME AIGHT TACE	COAT	TO BE	ANDARD TWEEN P	AVEMENT	A HONS SECTIO
		ASPHA	LT COM	NCRE	TE F	PAVE	MENT	_
7	$\left \right $	WITHIN	COUN	ΓΥ Ο	R TO	DWN	ROAD	WAY

THICKNESS IS GREATER ONS NYSDOT ITEM407.0103

- COMPACTED SUBGRADE 1. ABOVE SECTION IS THE MINIMUM FOR INSTALLATION. MATCH EXISTING SECTION IF EXISTING
- KIKIKIKIKIKI



SUBBASE MATERIAL, MATCH EXISTING THICKNESS (NYSDOT ITEM NO. 304.12)

SLOPE AS INDICATED ON PLAN

-8"SUBBASE

- COMPACTED SUBGRADE

STABILAZATION FABRIC

- PELEE P

GRAVEL PAVEMENT

SCALE: N.T.S.

6

(NYSDOT ITEM NO. 404.096201) -2-1/2" ASPHALT CONCRETE BINDER COURSE (NYSDOT ITEM NO. 404.198901) - 3" ASPHALT CONCRETE BASE COURSE (NYSDOT ITEM NO. 404.378901)

- 2" ASPHALT CONCRETE TOP COURSE

2" ASPHALT CONCRETE TOP COURSE

-2.5" ASPHALT CONCRETE BINDER COURSE

(NYSDOT ITEM NO. 404.096201)

(NYSDOT ITEM NO. 404.198901)



			SCALE	AS SHOWN	DATE	09/29/2
WN BY:	DESIGNED BY:	APPROVED BY:	REV. NO.	0	SH.NO.	## OF >



 $\label{eq:labeleq:la$





Kiewit



 $\frac{\text{PLAN VIEW}}{\text{SCALE: } 1/4" = 1'-0"}$

SECTION VIEW A SCALE: 1/4" = 1'-0"

		\sim	\sim		\sim	\sim	\sim
TEOFNEW LOPE	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS						
	2	05/03/2023	RFC - VAULT UPDATES	JNK	00		
	AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A	1	02/10/2023	REV 1 - IFC - NYSDOT HWP, SPLICE VAULT UPDATES	JNK	00	
	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	12/21/2022	IFC SUBMISSION	JNK	00	
IN ESSION		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DF

<u>NOTES:</u>

- 1. EACH ENDWALL (8.5 FT x 11 FT) IS DESIGNED FOR A SINGLE 51,000 LB PULLING IRON FORCE. THE FLOOR SLAB IS DESIGNED FOR FOUR CONCURRENT 3,300 LB PULLING IRON FORCES AND A SINGLE 51,000 LB PULLING IRON FORCE. SEE DETAIL 2 FOR RACKING FORCES AT EACH END.
- 2. DESIGN LIVE LOAD: HL-93.
- 3. EXTERIOR COATING & JOINT SEALERS/WATER STOPS TO BE USED BETWEEN PRECAST JOINTS, AS SPECIFIED.
- 4. MAXIMUM PRECAST PIECE PICK WEIGHT LIMITED TO 50.000 LB.
- 5. SEE ELECTRICAL DRAWINGS FOR CABLE RACKING DETAILS & GROUND WIRE DETAILS.
- 6. WALL THICKNESSES TO BE FINALIZED PER APPROVED VENDOR'S DESIGN. REFER TO APPROVED VENDOR SHOP DRAWINGS FOR WEIGHTS AND PICK POINTS.
- 7. THREADED ANCHOR WORKING LOAD SHALL BE 1,100 LB MINIMUM. 8. LINK SEAL TO BE USED BETWEEN CABLE CONDUIT AND PENETRATION SLEEVE, AS SPECIFIED.
- 9. ELECTRIC SUMP PUMP TO BE PROVIDED BY OTHERS.
- 10. SEE SHEET S-702 FOR ANCHOR AND EMBED LOCATIONS. 11. ESTABLISH STABLE SUBGRADE CONDITIONS AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE.
- 12. A MINIMUM BEDDING SECTION CONSISTING OF A 4-INCH THICK MUDMAT OR 4-INCH THICK SELECT GRANULAR FILL SHALL BE PLACED ON TOP OF PREPARED SUBGRADE. ADDITIONAL BEDDING MAY BE REQUIRED AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE BASED ON IN-SITU CONDITIONS.
- PRECAST SUPPLIER TO COORDINATE WITH MANHOLE COVER SUPPLIER FOR FIT-UP ISSUES.
- 14. BACKFILL AREA AROUND VAULT WITH FLUIDIZED THERMAL BACKFILL (FTB) UP TO TOP OF TOP SLAB. ABOVE TOP SLAB. BACKFILL WITH SCREENED NATIVE SOIL TO BE COMPACTED PER EARTHWORK SPECIFICATION.
- 15. FOR LIMITS OF EXCAVATION, SEE CIVIL PLAN DRAWINGS.

SEE NOTE 3-1'-0" (±1/8") 1/0 CABLE (SEE NOTE BELOW) -GROUND PLATE BURNDY YGF29-4N 1'-0' '±1/8 FLEXIBLE COPPER BRAID BURNDY BD24N -

DETAIL 1 SCALE: $1 \ 1/2" = 1'-0"$

NOTE: USED TO ELECTRICALLY JOIN PRECAST CONCRETE SECTIONS TOGETHER. BY MEANS OF REBAR CONNECTIONS. TO BE APPLIED AT EACH PRECAST SECTION, SUCH THAT ALL SECTIONS ARE JOINED TOGETHER.





NOTE: FORCES PROVIDED IN DETAIL 2 ARE PER CABLE AND ARE THE RESULT OF POST-INSTALLED CABLE RACKING EQUIPMENT. FORCES ARE POSITIVE IN THE DIRECTION IN WHICH THEY ARE DRAWN AND ARE ALIGNED WITH & HVDC CABLE. RACKING FORCES ARE NOT CONCURRENT WITH FLOOR PULLING IRON OR ENDWALL PULLING IRON FORCES. RACKING INSTALLED AT EACH END OF THE VAULT, FORCES APPLIED SYMMETRICALLY AT EACH END. $F_1 = 9.0 \text{ KIP}$ $F_2 = 2.3 \text{ KIP}$ $F_3 = 7.9 \text{ KIP}$



SLEEVE FOR CABLE PULLING, & TROLLEY BEAM







TEOFNEW LOP NANCHUW PR ANN ANCHUW PR ANN AND AND AND AND AND AND AND AND AND	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	2 1 0	05/03/2023 02/10/2023 12/21/2022	RFC - VAULT UPDATES REV 1 - IFC - NYSDOT HWP, SPLICE VAULT UPDATES IFC SUBMISSION	JNK JNK JNK	00 00 00	
SPECIFIC DESCRIPTION OF THE ALTERATION.	0	12/21/2022	IFC SUBMISSION	JNK	00		
TOFESSION		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DF

<u>NOTES:</u>

1. REFER TO NOTES ON SHEET S-700. 2. MANHOLE COVER SHALL BE RATED FOR HL-93 WHEEL LOADING MINIMUM PER S-700 NOTES AND S-705 DESIGN LOADS.

CHAMPLAIN HUDSON POWER EXPRESS

SPLICE VAULT SECTION AND DETAILS

RIEWIT PROJECT NO. 21162

DRAWING NO.

S-701

AS SHOWN DATE 2 SH.NO. DRAWN BY: DRH DESIGNED BY: JNK APPROVED BY: OO REV. NO.











FOFNEW

WANCHI

0

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY
ARE ACTING UNDER THE DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITEC
OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN
TIEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS
ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE
ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMEN
AND INCLUDE THE NUTATION ALTERED BY FULLOWED BY
THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A
SPECIFIC DESCRIPTION OF THE ALTERATION.

$\overline{}$	\sim	\sim		\sim	\sim	\sim
						(
						1
	2	05/03/2023	RFC - VAULT UPDATES	JNK	00	
	1	02/10/2023	REV 1 - IFC - NYSDOT HWP, SPLICE VAULT UPDATES	JNK	00	
	0	12/21/2022	IFC SUBMISSION	JNK	00	
	No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRA

<u>NOTES:</u>

1. FOR ALL SPLICE VAULT MANHOLES IN PACKAGES 1A AND 1B WITHIN DOT ROW OR UNDER PAVEMENT SECTION: AFTER CABLE COMMISSIONING, RISERS TO BE REMOVED, MANHOLE FRAMES AND COVERS TO BE LOWERED TO FINAL POSITION. MANHOLE COVER NOT TO EXTEND INTO PAVEMENT SECTION. MANHOLE FRAMES AND COVERS TO BE COVERED WITH 8'X 8' MIRAFI 140N GEOTEXTILE FABRIC OR EQUIVALENT. FULL DEPTH PAVEMENT WILL BE RESTORED PRIOR TO MILL AND OVERLAY AFTER CABLE COMMISSIONING.

CHAMPLAIN HUDSON POWER EXPRESS

SPLICE VAULT DETAILS

RIEWITPROJECT NO. 21162

DRAWING NO.

S-703

AWN BY: DRH DESIGNED BY: JNK APPROVED BY: OO REV. NO.

AS SHOWN DATE 2 SH.NO.

DESIGN SPECIFICATIONS

Ξ

1. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020 2. NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS, 2021 3. NYSDOT LRFD BLUE PAGES, 2021 4. AREMA MANUAL FOR RAILWAY ENGINEERING, VOLUME 2 STRUCTURES, 2016 5. ASCE 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES <u>design loads</u> 1. DEAD LOADS 1.1. CONCRETE UNIT WEIGHT = 150 PCF 1.2. STEEL UNIT WEIGHT = 490 PCF 2. SUPERIMPOSED DEAD LOADS 2.1. WEIGHT OF TWO HVDC CABLES + ONE FIBER OPTIC CABLE AND ASSOCIATED CONDUIT = 47.53 PLF2.2. WEIGHT OF CABLE TRAY = 20.57 PLF 2.3. PULLING IRON, TROLLEY BEAM, ANCHORAGE, EMBED FORCES NOTED ON DRAWINGS WHERE APPLICABLE. 3. EARTH LOADS 3.1. SOIL BACKFILL UNIT WEIGHT = 125 PCF 4. LIVE LOAD SURCHARGE 4.1. 100 PSF MINIMUM 5. LIVE LOADS 5.1. 300 PSF MINIMUM AT GROUND SURFACE OF TRENCH SECTIONS AND VAULTS. 5.2. HL-93 5.3. COOPER E-80 5.4. ANSI-SCTE TIER 22 (FOR HANDHOLES ONLY, SEE MATERIALS 7.1 BELOW) 6. WIND LOADS 6.1. 50 PSF TRANSVERSE 6.2. 10 PSF LONGITUDINAL 7. SNOW LOADS 7.1. 50 PSF 8. WATER 8.1. STRUCTURES ARE ASSUMED TO BE SUBMERGED. 9. THERMAL LOADS 9.1. STRUCTURES ARE SUBJECT TO THERMOMECHANICAL LOADING FROM HVDC CABLES. 9.2. TEMPERATURE GRADIENT. 10. SEISMIC LOADING 10.1. BURIED STRUCTURES ARE NOT SUBJECT TO SEISMIC PROVISIONS. MATERIALS: 1. REINFORCED CONCRETE 1.1. f'c = 4,500 PSI AT 28 DAYS, UNO 1.2. F2 FREEZE-THAW CATEGORY WHERE NOTED 2. REINFORCING STEEL 2.1. ASTM A706, GRADE 60, UNO 3. STRUCTURAL STEEL 3.1. ASTM A36, UNO 4. BOLTS 4.1. ASTM A325, UNO 5. NUTS 5.1. ASTM A563, UNO 6. WASHERS 6.1. ASTM F436, UNO 7. POLYMER CONCRETE 7.1. ANSI-SCTE 77 2017 8. REINFORCED THERMOSETTING RESIN CONDUIT 8.1. NEC 355 9. PVC 9.1. SCH 40







		$ \longrightarrow $	\sim		\sim		
WANCHUN OF	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE, ARCHITECT						-
× E	90036 BECIFIC DESCRIPTION OF THE ALTERATION.						
		2	05/03/2023	RFC - VAULT UPDATES REV 1 - IEC - NYSDOT HWP, SPLICE VAULT UPDATES	JNK JNK	00	
090036		0	12/21/2022	IFC SUBMISSION	JNK	00	
OFESSION		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	

ABBREVIATIONS:

APPROACH
BEARING
CAST IN PLACE
CENTERLINE
CLEAR COVER
DIAMETER
ELEVATION
GIRDER
HIGH STRENGTH
INTERMEDIATE CONDUIT SUPPORT
INSIDE DIAMETER
IRON PIPE SIZE
KIPS PER SQUARE INCH
LONG LEG VERTICAL
NOMINAL
OUTSIDE DIAMETER
PRECAST
PLATE
PROTECTIVE
POLYVINYL CHLORIDE
ROUTE
STATION
STANDARD WALL
THICKNESS
UNLESS NOTED OTHERWISE

CHAMPLAIN HUDSON POWER EXPRESS

STRUCTURAL GENERAL NOTES AND ABBREVIATIONS

KHEWIT PROJECT NO. 21162

DRAWING NO.

S-705

DRAWN BY: DRH DESIGNED BY: JNK APPROVED BY: OO REV. NO.

AS SHOWN DATE 2 SH.NO.





Power Express



PLAN VIEW SCALE: 3/8" = 1'-0"



		\sim	\sim		\sim	\sim	
TE OF NEW L							-
WANCHUN PF	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						1
Sta CA. Et +	ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						
	ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS						_
ACHIERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT	2	05/03/2023	RFC - VAULT UPDATES	JNK	00		
000036	THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A	1	02/10/2023	REV 1 - IFC - NYSDOT HWP, SPLICE VAULT UPDATES	JNK	00	
POLEASIONA	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	12/21/2022	IFC SUBMISSION	JNK	00	
107ESSI01		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DI

2 SH.NO.

APPROVED BY: ASM REV. NO. DB APP DRAWN BY: DLM DESIGNED BY:

OF

0 SH.NO.

FNEW							
GKAI CHE PT	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						
	PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						
	ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS						
	ACHIERED, THE ALTERING ENGINEER, ARCHIECT, LANDSCAPE ARCHIECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT						
Street Street	THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A						
706996	SPECIFIC DESCRIPTION OF THE ALTERATION.	0	06/08/2023	ISSUED FOR CONSTRUCTION SUBMISSION	DLM	ASM	
ESSION		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	
						· '	

Ν	NOTES:							
1.	L. ESTABLISH STABLE SUBGRADE CONDITIONS AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE.							
2.	2. A MINIMUM BEDDING SECTION CONSISTING OF A 4-INCH THICK MUDMAT OR 4-INCH THICK SELECT GRANULAR FILL SHALL BE PLACED ON TOP OF PREPARED SUBGRADE. ADDITIONAL BEDDING MAY BE REQUIRED AS DIRECTED BY GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE BASED ON IN-SITU CONDITIONS.							
	REFERENCE DOCUMENTS							
LIST NO.	DOCUMENT NAME	DOCUMENT NO.						
1	STRUCTURAL VAULT DRAWING	S-700						
2	TYPICAL VAULT GROUNDING DETAILS	C-803						
3	DUCT BANK CONNECTION DETAILS	C-812						
4	FIBER OPTIC SPLICE DETAILS	C-855						
5	FIBER OPTIC H-FRAME BRACKET DETAIL	C-856						

A

ASSEST IRONS (TYP)

SECTION A-A SCALE: 1/4" = 1'-0"

1'-11"

	BILL OF MATERIALS						
M).	ITEM DESCRIPTION	MANUFACTURER & CATALOG NO.	PROVIDER	INSTALLER			
	LINK BOX	NKT LB.U.E.2.1	NKT	KIEWIT			
	INSULATED COAX BONDING CABLE	AS REQUIRED	NKT	NKT			
	BARE 4/0 GROUND CABLE	AS REQUIRED	KIEWIT	KIEWIT			
	GROUND CONNECTOR	BURNDY GB29	KIEWIT	KIEWIT			
	FEMALE WEDGE ANCHOR	GRAINGER 12DWG	KIEWIT	KIEWIT			
	COMPRESSION C CONNECTOR	BURNDY YGHC29C29	KIEWIT	KIEWIT			
	COMPRESSION CONNECTION TO GROUND ROD	BURNDY YGHR29C34	KIEWIT	KIEWIT			
	3/4" X 10'-0" GROUND ROD	NVENT ERICO 613400	KIEWIT	KIEWIT			
	SILICON BRONZE HEX HEAD CAP SCREW	STS INDUSTRIAL #HHSB0370075	KIEWIT	KIEWIT			
)	POLYWATER FST SEALANT	POLYWATER	KIEWIT	KIEWIT			
L	FOUR-HOLE GROUNDING PLATE	BURNDY YGF294N	KIEWIT	KIEWIT			
2	GROUNDING BUSBAR & ASSEMBLY	NVENT ERICO EGBA14210BB	KIEWIT	KIEWIT			
3	ONE HOLE LUG COMPRESSION TERMINAL	BURNDY YAV28L60	KIEWIT	KIEWIT			
ł	TWO HOLE LONG BARREL LUG	BURNDY YA282N	KIEWIT	KIEWIT			
5	UNISTRUT AND SUNDRIES	STAINLESS STEEL	NKT	NKT			
5	FLEXIBLE COPPER BRAID	BURNDY BD24N	KIEWIT	KIEWIT			
7	SILICON BRONZE HEX NUT	STS INDUSTRIAL #NFSB0370000	KIEWIT	KIEWIT			
3	COMPRESSION LUG	ABB 120M16-A	KIEWIT	KIEWIT			
)	SILICON BRONZE HEX HEAD CAP SCREW	AFT BB-VS1160-B	KIEWIT	KIEWIT			
)	SILICON BRONZE TAP BOLT	FASTENAL 74954	KIEWIT	KIEWIT			
L	SILICON BRONZE SPLIT LOCK WASHER	GRAINGER 1NU94	KIEWIT	KIEWIT			
2	SILICON BRONZE HEX NUT	GRAINGER 1WE52	KIEWIT	KIEWIT			
חח	OVED EQUAL MATERIAL MAY DE CURMITTER FOR R						

	REFERENCE DOCUMENTS						
T	DOCUMENT NAME	DOCUMENT NO.					
	STRUCTURAL VAULT DRAWING	S-700					
	GROUNDING SPECIFICATIONS	260526.01					

Α

Kiewit

							1	
FNEW							1	'
SKAI CHE PY	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY						Ī	
	ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT						ĺ	
	OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN	_						
ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE	-						1	
	AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY	-					ĺ	
06996	SPECIFIC DESCRIPTION OF THE ALTERATION.	-	0	06/08/2023	ISSUED FOR CONSTRUCTION SUBMISSION	DLM	ASM	
ESSIONAL		-	Na	DATE				
			INO.	DATE	SUBMITTAL / REVISION DESCRIPTION		APP	DR/

	KIE	WIT PROJECT NO.
		21162
	C	HA PROJECT NO.
		066076
SPLICE VAULT AND CABLE MARKING DETAILS		DRAWING NO.
		C-807
SCALE	DATE	06/08/2023
AWN BY: DLM DESIGNED BY: SD APPROVED BY: ASM REV. NO. C	SH.NO.	OF

DF NEW YORY GKAI CHEN KAI CHEN KI KI KI KI KI KI KI KI KI KI KI KI KI	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.						-
NAL V		0	06/08/2023	ISSUED FOR CONSTRUCTION SUBMISSION		ASM	
ESSION		No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DF

	NET ENERGI	
LIST NO.	DOCUMENT NAME	DOCUMENT NO.
1	TYPICAL OPEN PIT GROUNDING DETAILS	C-809
2	OPEN VAULT HAND HOLE	C-853
3	FIBER OPTIC HAND HOLE DETAILS	C-854
4	FIBER OPTIC SPLICE DETAILS	C-855
5	TRENCHING AND BACKFILLING SPEC.	312333

DRAWN BY: DLM DESIGNED BY: SS APPROVED BY: ASM REV. NO.

0 SH.NO.

OF