

A. GENERAL NOTES

- ALL COORDINATES AND ELEVATIONS ARE STATED IN FEET UNLESS OTHERWISE NOTED.
- ALL SURVEY DATA AND GEO-REFERENCED DATA REFERENCES THE VERMONT STATE PLANE COORDINATE SYSTEM.
 - HORIZONTAL DATUM: VERMONT STATE PLANE, NAD83, US SURVEY FEET
 - VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM, 1988 (NAV88), FEET
- TOPOGRAPHIC SURVEY PERFORMED BY ENCOMPASS SERVICES, BRUNSWICK, MAINE USING AERIAL SURVEY (LIDAR) TECHNIQUES. THE SURVEY WAS CONDUCTED DURING AUGUST 2014.
- PROPERTY BOUNDARIES ARE BASED ON PUBLICLY AVAILABLE TAX MAPS AND VTRANS PROPERTY MAPS; AS SUCH, PROPERTY AND R.O.W. BOUNDARIES MAY REQUIRE ADJUSTMENT. PROPERTY LIMITS AND R.O.W. BOUNDARIES WILL BE VERIFIED AND UPDATED DURING THE DETAILED DESIGN PHASE OF THE PROJECT.
- INFORMATION CONTAINED WITHIN THIS PACKAGE OF DRAWINGS AND DESIGN DATA IS DEVELOPED TO A 20% LEVEL OF DESIGN. THESE DOCUMENTS HAVE BEEN PREPARED FOR THE PURPOSE OF CONVEYING CONCEPT LEVEL PROJECT ROUTING, DESIGN AND CONSTRUCTION DETAILS NECESSARY FOR PUBLIC AND REGULATORY REVIEW AND PERMITTING. TO THE GREATEST EXTENT POSSIBLE, THESE PROJECT CONCEPTS HAVE BEEN DEVELOPED TO DEPICT LIKELY, FEASIBLE CONSTRUCTION TECHNIQUES, PROJECT ROUTES AND SUITABLE MATERIALS.
- THE ROUTE AND DETAILS PRESENTED ARE SUBJECT TO REVISION BASED ON PUBLIC AND REGULATORY COMMENT; AS SUCH, CONCEPTS PRESENTED HEREIN MAY BE MODIFIED TO ADDRESS SPECIFIC CONCERNS EXPRESSED BY VARIOUS PARTIES.
- DETAILED ENGINEERING AND CONSTRUCTION WILL BE PERFORMED BY A DESIGN-BUILD CONTRACTOR AFTER RECEIPT OF APPLICABLE PERMITS. THE DETAILED DESIGN WILL BE DEVELOPED IN ACCORDANCE WITH THE GUIDANCE AND DIRECTION CONTAINED WITHIN THE ISSUED PERMITS, DIRECTIVES AND OWNER'S CONTRACT.
- NO CONSTRUCTION MAY TAKE PLACE WITHOUT OWNER'S APPROVAL OR PROPER COORDINATION WITH REGULATORY AGENTS AND ENTITIES HAVING A MATERIAL INTEREST IN THE WORK.
- PERMIT AND REGULATORY REQUIREMENTS THAT ARE IN CONFLICT WITH REQUIREMENTS OF THIS DOCUMENT SHALL TAKE PRECEDENCE OVER DETAILS AND NOTATION PRESENTED HEREIN.
- PROJECT DRAWINGS, SPECIFICATIONS, CALCULATIONS AND RELATED DESIGN DOCUMENTS SHALL BE DEVELOPED UNDER THE DIRECT OVERSIGHT OF PROFESSIONAL ENGINEERS LICENSED TO PRACTICE IN THE STATE OF VERMONT. FINISHED DESIGN PRODUCTS AND DOCUMENTS SHALL BEAR THE STAMP AND SIGNATURE OF THE ENGINEER IN RESPONSIBLE CHARGE OF THAT PORTION OF THE WORK.
- THE TYPICAL ROUTE SEGMENT WORK SEQUENCE WILL INCLUDE:
 - LAND OWNER NOTIFICATION, ROUTE SURVEY, UTILITY LOCATING.
 - ENVIRONMENTAL CONTROLS, GEOTECHNICAL INVESTIGATION, CLEARING.
 - TRENCH EXCAVATION, HORIZONTAL DIRECTIONAL DRILLS WITH ASSOCIATED SOIL STOCKPILING.
 - CABLE LAYING, BACKFILL AND COMPACT, INCLUDING PROTECTIVE PLATE AND WARNING TAPE INSTALLATION.
 - CABLE SPLICING.
 - SITE RESTORATION AND RE-SURFACING.

ACTIVITIES A THROUGH F ARE PRESENTED IN A GENERAL CHRONOLOGIC SEQUENCE. WITHIN LIMITATIONS ALLOWED UNDER THE APPROVED PROJECT PERMITS, AS A RESULT OF SPECIFIC SCHEDULING RESTRICTIONS AND OTHER FACTORS, SOME ACTIVITIES MAY BE PERFORMED CONCURRENT WITH OR PRECEDE THE SEQUENCE PRESENTED.

- THE TDI-NE PROPERTY AT THE LISTED LOCATIONS MAY BE USED FOR CONSTRUCTION STAGING AND STORAGE AREAS. LIMITS ON CLEARING, WETLAND DISTURBANCE, AND OTHER PERMIT RESTRICTIONS APPLY TO EACH PROPERTY.

ALBURG, VT	55 BAY RD.	3 ACRES
BENSON, VT	113 STONY POINT RD. 148 STONY POINT RD.	2 ACRES TOTAL
LUDLOW, VT	278 NELSON RD. AND ADJACENT PARCEL	40 ACRES

- THERE ARE EXISTING TELEPHONE AND OTHER UTILITIES ALONG THE PROJECT ROUTE WITHIN THE ROAD RIGHTS-OF-WAY THAT HAVE NOT BEEN LOCATED. IDENTIFIED UTILITY OWNERS HAVE BEEN CONTACTED, AND AS-BUILT LOCATIONS HAVE BEEN REQUESTED. UNDERGROUND TELEPHONE UTILITIES ARE KNOWN TO EXIST IN THE TOWN OF BENSON AND ELSEWHERE. UNDERGROUND UTILITIES WILL BE ADDED TO THE PROJECT MAPS AS INFORMATION IS MADE AVAILABLE.

B. SAFETY NOTES

- SMOKING IS PROHIBITED ON THE PROJECT SITE EXCEPT WITHIN DESIGNATED SMOKING AREAS.
- PROVIDE SANITARY FACILITIES AT EACH WORK SITE AS REQUIRED BY STATE OR UNION REQUIREMENTS.
- OPEN FLAMES, BURNING AND GRINDING IS PROHIBITED UNLESS PERMITTED BY LOCAL FIRE OFFICIALS.
- EACH CONSTRUCTION VEHICLE SHALL HAVE AT LEAST ONE A, B, C FIRE EXTINGUISHER AND A SUITABLE CLASS II FIRST AID KIT.
- EACH WORK SITE SHALL HAVE AT LEAST ONE ANSI COMPLIANT CLASS III UNINITIALIZED FIRST AID KIT.
- NO EXCAVATION SHALL TAKE PLACE PRIOR TO CONTACTING THE APPROPRIATE UTILITY LOCATING SERVICE FOR A DIG-SAFE CLEARANCE.
- MECHANICAL EXCAVATION USING POWER EQUIPMENT SHALL APPROACH NO CLOSER THAN TWO (2) FEET FROM MARKED UNDERGROUND UTILITIES UNTIL THE ACTUAL LOCATION OF THE UTILITY HAS BEEN VERIFIED BY EXPOSING IT. UTILITIES SUBJECT TO THIS REQUIREMENT INCLUDE BUT ARE NOT LIMITED TO GAS LINES, LIQUID FUEL, WATER, ELECTRIC, TELEPHONE, DATA LINES (FIBER OR COPPER), SANITARY SEWER, STORM DRAINS AND OTHERS. MARKED UTILITIES SHALL BE EXPOSED BY HAND DIGGING OR VACUUM EXCAVATION TO VERIFY THE UTILITY LOCATION, DEPTH AND ORIENTATION.
- ROAD OR LANE CLOSINGS AND ALL TRAFFIC CONTROL PLANS SHALL BE SUBJECT TO APPROVAL OF TOWN OR STATE ROAD OFFICIALS. PROPOSED CONTROL PLANS SHALL BE SUBMITTED TO THE TOWN OR STATE ROAD OFFICIALS FOR REVIEW AND APPROVAL WELL AHEAD OF THE PLANNED WORK.
- CONSTRUCTION VEHICLES SHALL OBSERVE AND COMPLY WITH ESTABLISHED SAFETY REQUIREMENTS INCLUDING POSTED SPEED LIMITS.

C. ENVIRONMENTAL NOTES

- ENVIRONMENTAL CONTROLS SHALL BE ESTABLISHED PRIOR TO MOBILIZATION TO EACH WORK SITE.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED AS REQUIRED BY THE PROJECT PERMITS, AND THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL.
- SUPPLEMENTAL EROSION CONTROLS MAY BE NECESSARY IF THE ESTABLISHED CONTROLS ARE FOUND INEFFECTIVE. CONTRACTOR SHALL INSTALL SUPPLEMENTAL EROSION CONTROLS AS DIRECTED AND MAINTAIN SUCH CONTROLS THROUGHOUT THE DURATION OF THE WORK.
- WETLANDS AND STREAMS SHOWN HEREIN ARE BASED ON THE NATURAL RESOURCE MAP SERIES PREPARED AND PROVIDED BY VHB AND TRC. REFER TO VHB/TRC NATURAL RESOURCE MAP SERIES FOR ADDITIONAL NATURAL RESOURCES AND ENVIRONMENTAL FEATURES.

D. GENERAL WORK REQUIREMENTS

- INDICATED UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED ON RECORD DOCUMENTS PROVIDED BY THE UTILITY OWNER, OR FROM FIELD OBSERVATIONS. NOT ALL UTILITIES IN THE VICINITY OF THE WORK HAVE BEEN IDENTIFIED.
- PRIOR TO THE START OF THE WORK, THE CONTRACTOR SHALL ESTABLISH SAFETY AND ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE, AND LOCAL REGULATIONS AND PERMITS. CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PROJECT, REMOVED AT THE COMPLETION OF THE WORK AND THE SITE RESTORED TO ITS ORIGINAL CONDITION, UNLESS OTHERWISE DIRECTED.
- NO WORK SHALL TAKE PLACE ON, EQUIPMENT OR PERSONNEL ACCESS, PROPERTY OUTSIDE THE ESTABLISHED WORK ZONES OR RIGHTS-OF-WAY.
- FARM FENCES, STONE WALLS, MAILBOXES, AND SIMILAR IMPROVEMENTS WITHIN THE R.O.W. DISTURBED BY THE CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF THE WORK.
- THE PERMANENT CABLE EASEMENT (PCE) REPRESENTS THE AREA ABOVE AND ADJACENT TO THE CABLE THAT WILL BE MAINTAINED FREE OF DEEP-ROOTED VEGETATION. THE PCE IS GENERALLY 12 FT. WIDE. THE PCE MAY BE CENTERED ON THE CABLE TRENCH OR, IN RESTRICTED AREAS, EXTEND TO THE EDGE OF THE R.O.W.
- UNLESS OTHERWISE INDICATED, CONSTRUCTION WORK ZONES SHALL BE THE LESSER OF 50 FT. WIDE OR INCLUDE THE AREA 6 FT. TO EACH SIDE OF THE TRENCH CENTERLINE AND EXTENDING TO THE EDGE OF THE R.O.W. IN ONE DIRECTION. REFER TO SHEET CM-1 FOR ILLUSTRATION OF WORK ZONE.
- A WATER LINE AT PROJECT MILE POST 132.5 (APPROXIMATELY) WAS INSTALLED PRIOR TO THE CONSTRUCTION OF ROUTE 103. THE EXACT LOCATION OF THE LINE, ITS MATERIAL AND DEPTH ARE UNKNOWN. THE CONTRACTOR SHALL COORDINATE WITH THE WATERLINE OWNER TO IDENTIFY THE SPECIFIC INSTALLATION MATERIALS AND LOCATION. THE CONTRACTOR SHALL DESIGN A MEANS TO LIMIT THE DURATION OF ANY WATER SYSTEM INTERRUPTION AND REPLACE THE EXISTING WATERLINE WITH A NEW LINE, COMPLETE AND READY FOR USE. THE NEW LINE SHALL INCLUDE SHUT-OFF VALVES ON EACH SIDE OF THE ROAD CROSSING AND BE HOUSED WITHIN A NON-CORROSIVE SLEEVE HAVING AN INSIDE DIAMETER (I.D.) OF NOT LESS THAN TWO TIMES THE EXISTING WATERLINE OUTSIDE DIAMETER (O.D.). THE NEW WATERLINE SHALL HAVE AN I.D. GREATER THAN OR EQUAL TO THE EXISTING WATERLINE.
- SEVERAL PRIVATE WATERLINES EXTEND ACROSS NORTH LAKE, GLENN AND HULETT HILL ROADS. THE LOCATION AND NUMBER OF THE PRIVATE WATERLINES IS UNKNOWN. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL LAND OWNERS TO IDENTIFY WHERE THE LINES MAY BE LOCATED. NEW WATERLINES SHALL BE INSTALLED FROM EDGE OF THE R.O.W. TO EDGE OF THE R.O.W. AND CONNECTED TO THE EXISTING WATER SYSTEM ON EACH END. THE NEW WATERLINE SEGMENT SHALL BE INSTALLED WITHIN HDPE SLEEVES HAVING AN I.D. OF NOT LESS THAN TWICE THE EXISTING PIPE O.D. EACH NEW INSTALLATION SHALL INCLUDE A TRACE WIRE DIRECTLY OVER THE HDPE SLEEVE. THE NEW WATERLINE AND SLEEVE SHALL BE BURIED NOT LESS THAN 6 FEET BELOW THE FINISHED GRADE UNLESS OTHERWISE DIRECTED. FOR PRICING PURPOSES, THE CONTRACTOR SHALL ASSUME A TOTAL OF 18 PRIVATE WATERLINES REQUIRE REPLACEMENT FROM MILE POST (MP) 98.4 THROUGH 102.5.
- EXISTING PRIVATE DWELLINGS IN SHREWSBURY (VICINITY OF MP 136.3-136.5) HAVE DEEDED ACCESS TO A NATURAL SPRING NORTH OF THE EXISTING RAILROAD TRACKS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE WATER SOURCE. IN ADDITION, EXISTING PIPING CONDUCTING THE SPRING WATER ACROSS THE PROJECT R.O.W. SHALL BE REPLACED WITH NEW PIPING WITHIN AN HDPE SLEEVE. THE SLEEVE I.D. SHALL BE NOT LESS THAN TWO TIMES THE EXISTING PIPE O.D. THE NEW PIPING SHALL BE CONNECTED TO THE EXISTING PIPING AT BOTH EDGES OF THE ESTABLISHED R.O.W.
- THE PROPOSED OPEN-CUT METHOD AND LOCATION FOR CROSSING PERENNIAL STREAMS WITHIN THE VTRANS R.O.W. MAY BE MODIFIED FROM THAT PRESENTED HEREIN. EACH STREAM CROSSING WILL BE REVIEWED BY VTRANS AND SPECIFIC CROSSING REQUIREMENTS DEVELOPED TO COMPLY WITH THEIR DESIGN CRITERIA AND ENVIRONMENTAL INITIATIVES.

LEGEND



- TOWN LINE
- R.O.W./PROPERTY LINE
- CLASS II WETLAND BUFFER (50 FT.)
- DELINEATED WETLAND (2014)
- APPROXIMATE WETLAND
- STREAM CENTERLINE
- STREAM CENTERLINE (APPROX.)
- FEMA 100 YEAR FLOOD ZONE
- EXISTING 10 FOOT CONTOUR
- EXISTING 2 FOOT CONTOUR
- EXISTING CULVERT
- EXISTING CULVERT INV. DATA
- EXISTING UNDERGROUND UTILITY
- EXISTING SIGNS
- EXISTING CATCH BASIN
- EXISTING UTILITY POLE
- EXISTING TREELINE
- EXISTING PAVEMENT
- EXISTING GRAVEL
- EXISTING BUILDING
- EXISTING CHAIN LINK FENCE
- EXISTING BARB WIRE FENCE
- PROPOSED HDD STAGING AREA
- PROPOSED J&B STAGING AREA
- PROPOSED CABLE ROUTE
- PROPOSED HDD CABLE ROUTE
- PROPOSED J&B CABLE ROUTE
- PROPOSED CABLE SPLICE PIT
- MILEPOST MARKER

ABBREVIATIONS

J&B	JACK & BORE
HDD	HORIZONTAL DIRECTIONAL DRILL
PCE	PERMANENT CABLE EASEMENT
R.O.W.	RIGHT-OF-WAY

Designed	TRC				
Drawn	TRC				
Checked	-				
Approved	-				
Scale	N/A				

No.	Revision	Date	By	Ck	PE	PE #
A	20% ANR Submission	12/5/14	TRC	AMW		


New England Clean Power Link
 TDI New England
 General Notes
 G-2
 Prepared by:  TRC 09/19/14