

APPENDIX R
CASE 10-T-0189
DOCUMENTATION OF CI CONSULTATIONS HAVING
OCCURRED

**Champlain Hudson Power Express
Upland Co-located Utility Summation Matrix**

Revision Date: 04/05/2022

| Segment | General Location of Utility | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|-------------------|--|-------------------------------------|-------------------|-----------------------------|------|--------|-----------------------|------------------------|---|--|-------------------------|----------------------------|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/Perpendicular | Description (optional) | | | |
| Package 1A | | | | | | | | | | | | |
| | 7 NO STATION | | Level 3 | Fiber Cable in HDPE Duct | | | | Perpendicular | Fiber Located in RR ROW - East Side | Crossing is at the junction between the marine and upland projects | D | Based on Supplemental DWG |
| | 7 NO STATION | | AT&T | Fiber Cable in HDPE Duct | | | | Perpendicular | Fiber Located in RR ROW - West Side | Crossing is at the junction between the marine and upland projects | D | Based on Supplemental DWG |
| | 10000+90 | | Washington County | Storm Drainage Pipe/Culvert | 48" | 100.2 | 50 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10004+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10006+05 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 3 | Also parallel for ~200' West Side of Route 3 | B | CPA Survey dated 3/22/2022 |
| | 10006+10 | 10008+00 | National Grid | Utility (Electric) | | | | Parallel | Overhead Service Connection - Route 3 | ADDED COLUMN TO SHOW PARALLEL | | |
| | 10007+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10007+90 | 10009+55 | Verizon | Overhead Telecomm | | | | Parallel | Short Aerial Route | | B | CPA Survey dated 3/22/2022 |
| | 10009+0 | (no parallel) | Washington County | Storm Drainage Pipe/Culvert | 15" | 174.6 | | Perpendicular | HDP - Route 3 | NO PARALLEL ON STORM | B | CPA Survey dated 3/22/2022 |
| | 10009+55 | 10012+00 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | Approx. 15' off West edge of pavement - Route 3 | END PARALLEL STATION INCORRECT | | |
| | 10009+75 | 10013+90 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | Approx. 10' off West edge of pavement - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10014+90 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 202.7 | 50 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10014+80 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 3 | ADDED CONFLICT, ONE NOT SHOWN IN THIS MATRIX | | |
| | 10015+50 | 10022+90 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | LINE EXITED LOW AND CAME BACK IN | | |
| | 10018+00 | 10022+90 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | LINE EXITED LOW AND CAME BACK IN | | |
| | 10019+25 | | Private | Water Line | | | | Perpendicular | Water Service to House on West Side of Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10019+30 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 224.9 | pl | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10022+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10022+90 | 10028+10 | Verizon | Overhead Telecomm | | | | Parallel | | ADDED, DO NOT SEE PARALLEL SHOWN AS CONFLICT | | |
| | 10024+60 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 228.8 | 50 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10027+00 | | Washington County | Storm Drainage Pipe/Culvert | 36" | 219.5 | 72 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10027+00 | | Verizon | Overhead Telecomm | | | | Perpendicular | Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10029+70 | | Washington County | Storm Drainage Pipe/Culvert | 24" | 232.0 | 60 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10034+00 | 10045+50 | Verizon | Overhead Telecomm | | | | Parallel | Route 3 | CHANGED TO PARALLEL AND ADDED END STATION | B | CPA Survey dated 3/22/2022 |
| | 10035+00 | | Verizon | Overhead Telecomm | | | | Perpendicular | Route 3 | | | |
| | 10036+00 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 247.0 | 50 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10039+20 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 236.3 | 60 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10040+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | CHANGED STATION NUMBER FROM 10067+55 TO 10040+90 | B | CPA Survey dated 3/22/2022 |
| | 10041+80 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 245.0 | 55 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10044+40 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 248.5 | 50 | Perpendicular | HDP - Route 3 | | B | CPA Survey dated 3/22/2022 |
| | 10044+75 | | Verizon | Overhead Telecomm | | | | Perpendicular | Route 3 | THIS IS WHERE THE LINE FROM 10034+00 CROSSES OVER AGAIN | B | CPA Survey dated 3/22/2022 |
| | 10045+20 | | Verizon | Overhead Telecomm | | | | Perpendicular | Route 3 | CONFLICT NOT SHOWN | | |
| | 10046+10 | | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10046+40 | 10052+00 | Verizon | Overhead Telecomm | | | 550 | Parallel | West Side of Lake Rd | Crosses at 10051+00 | B | CPA Survey dated 3/22/2022 |
| | 10053+25 | 10061+50 | National Grid | Utility (Electric) | | | | Parallel | | CONFLICT NOT SHOWN | | |
| | 10054+55 | 10061+50 | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | | CONFLICT NOT SHOWN | | |
| | 10054+60 | | Verizon | Overhead Telecomm | | | 736 | Parallel | East Side of Lake Rd | EDITED TO REFLECT THAT LINE IS NOT PART OF UGT LINE | B | CPA Survey dated 3/22/2022 |
| | 10058+35 | | Verizon | Overhead Telecomm | | | | Perpendicular | Lake Rd | Coax to House | B | CPA Survey dated 3/22/2022 |
| | 10061+90 | 10068+55 | National Grid | Utility (Electric) | | | | Parallel | | CONFLICT NOT SHOWN | | |
| | 10062+55 | | Washington County | Storm Drainage Pipe/Culvert | 12" | 329.2 | 35 | Perpendicular | CMP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10064+90 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 314.3 | 30 | Perpendicular | RCP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10067+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10072+50 | 10079+50 | National Grid | Utility (Electric) | | | | Parallel | | CONFLICT NOT SHOWN | | |
| | 10074+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |

Champlain Hudson Power Express
Upland Co-Located Utility Summation Matrix

Revision Date: 04/05/2022

| Segment | General Location of Utility | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|---------|--|-------------------------------------|-------------------|-----------------------------|------------|--------------|-----------------------|-------------------------|---|---|-------------------------|----------------------------|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| | | | | | | | | | | | | |
| | 10076+05 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 333.5 | 35 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10077+15 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 334.2 | 32 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10078+15 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10080+45 | | Washington County | Storm Drainage Pipe/Culvert | 24" | 329.5 | 40 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10080+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10089+75 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 355.6 | 30 | Perpendicular | RCP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10093+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10093+25 | 10110+30 | National Grid | Utility (Electric) | | | | Parallel | | CONFLICT NOT SHOWN- CONFLICT RUNS BORDER IN AND OUT OF LOW | | |
| | 10097+05 | | Washington County | Storm Drainage Pipe/Culvert | 12" | 371.7 | 40 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10102+25 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 372.9 | 35 | Perpendicular | CMP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10104+95 | | Washington County | Storm Drainage Pipe/Culvert | 12" | 372.8 | 32 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10104+95 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10106+70 | | Verizon | Overhead Telecomm | | | | Perpendicular | Lake Rd | Coax to House | B | CPA Survey dated 3/22/2022 |
| | 10107+65 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10109+05 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10111+65 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10112+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10112+75 | | Washington County | Storm Drainage Pipe/Culvert | 24" | 374.5 | 32 | Perpendicular | CMP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10116+90 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 380.7 | 30 | Perpendicular | CMP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10117+30 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines (I) - Lake Rd | 3 LINES 10117+20, 10117+30, 10117+45 | B | CPA Survey dated 3/22/2022 |
| | 10121+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10122+10 | | Verizon | Overhead Telecomm | | | | Perpendicular | Lake Rd | Coax to House, CHANGED STATION FROM 10112+10 TO 10122+10 | B | CPA Survey dated 3/22/2022 |
| | 10122+90 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 349.6 | 90 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10128+60 | | Washington County | Storm Drainage Pipe/Culvert | 15" | 333.0 | 40 | Perpendicular | HDPE - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10136+95 | 10138+60 | National Grid | Utility (Electric) | | | | Parallel | | CONFLICT NOT SHOWN | | |
| | 10136+95 | | Verizon | Overhead Telecomm | | | | Perpendicular | Lake Rd | Coax to House | B | CPA Survey dated 3/22/2022 |
| | 10137+40 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 304.0 | 35 | Perpendicular | CMP - Lake Rd | | B | CPA Survey dated 3/22/2022 |
| | 10141+85 | 10158+60 | Verizon | Fiber Cable in HDPE Duct | | | 2022 | Parallel | North of Lake Rd - Mostly outside Alignment | Alignment Crosses at STA 10142+00 & 10147+75 | B | CPA Survey dated 3/22/2022 |
| | 10142+00 | | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | | | | |
| | 10144+30 | 10144+50 | Private | Storm Drainage Pipe/Culvert | 12" | 301.0 | 20 | Parallel | CMP - North Side of Road | Outside proposed alignment | B | CPA Survey dated 3/22/2022 |
| | 10147+75 | | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | | | | |
| | 10148+80 | | Washington County | Storm Drainage Pipe/Culvert | | | | Perpendicular | | CROSSING HDD CONDUITS 1 & 2 | | |
| | 10149+00 | | Washington County | Storm Drainage Pipe/Culvert | 144", 144" | 257.2, 256.8 | 38, 38 | Perpendicular | CMP, CMP - Lake Rd | Crossing HDD | B | CPA Survey dated 3/22/2022 |
| | 10153+25 | | Washington County | Storm Drainage Pipe/Culvert | 18" | 278.3 | 35 | Perpendicular | CMP - Lake Rd | Outside proposed alignment | B | CPA Survey dated 3/22/2022 |
| | 10161+00 | 10202+50 | Verizon | Fiber Cable in HDPE Duct | | | 4333 | Parallel | West Side of Route 22 - Edge of Pavement | THIS WAS CHANGED FROM OHT TO UGT. CHANGED STATION TO 10161+00 | B | CPA Survey dated 3/22/2022 |
| | 10161+00 | 10233+30 | Verizon | Fiber Cable in HDPE Duct | | | 13843 | Parallel | West Side of Route 22 - Edge of Pavement | CHANGED LINE END TO 10233+25. CHANGED STATION TO 10161+00 | B | CPA Survey dated 3/22/2022 |
| | 10168+40 | 10168+70 | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 298.0 | 30 | Parallel | RCP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10169+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10173+30 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 272.2 | 110 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10177+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 275.7 | 120 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10177+65 | 10177+90 | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 280.9 | 45 | Parallel | CMP - West Side of Route 22 | CHANGED STATION TO 10177+90 | B | CPA Survey dated 3/22/2022 |
| | 10179+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10180+25 | | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | SPLICE PIT IS DANGEROUSLY CLOSE TO 2 BURIED LINES | | |
| | 10182+90 | 10184+40 | National Grid | Utility (Electric) | | | | Parallel | | CHE LINE NOT SHOWN | | |

Champlain Hudson Power Express
Upland Co-located Utility Summation Matrix

Revision Date: 04/05/2022

| Segment | General Location of Utility | | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|---------|--|-------------------------------------|------------------|-----------------------------|----------|--------------|----------|-----------------------|---|---|----------|----------------------------|--|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| | 10183+50 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 280.1 | 115 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10183+90 | 10184+35 | Private | Storm Drainage Pipe/Culvert | 16" | 280.6 | 45 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10188+75 | 10190+25 | National Grid | Utility (Electric) | | | | Parallel | | ONE LINE NOT SHOWN | | | |
| | 10189+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 287.2 | 90 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10193+00 | 10193+52 | Private | Storm Drainage Pipe/Culvert | 24" | 293.6 | 52 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10197+80 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 96", 96" | 271.8, 271.8 | 118, 118 | Perpendicular | CMP, CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10197+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | | | | Perpendicular | | STORM LINE NOT SHOWN | | | |
| | 10203+10 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | CHANGED STATION TO 10203+10 | B | CPA Survey dated 3/22/2022 | |
| | 10203+30 | 10206+30 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | | | | |
| | 10205+15 | | Verizon | Overhead Telecomm | | | | Perpendicular | Route 22 | Coax to House, ALSO HAS ONE | B | CPA Survey dated 3/22/2022 | |
| | 10205+80 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10206+40 | 10206+70 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | SPLICE PIT IS DANGEROUSLY CLOSE TO UG FO LINE | | | |
| | 10208+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10209+30 | 10210+90 | National Grid | Utility (Electric) | | | | Parallel | Overhead Transmission Lines - Route 22 | LINE NOT SHOWN ON MATRIX | | | |
| | 10210+20 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 319.7 | 87 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10210+60 | 10210+90 | Private | Storm Drainage Pipe/Culvert | 14" | 322.6 | 20 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10218+60 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | LINE NOT SHOWN ON MATRIX | | #NAME? | |
| | 10219+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 376 | 100 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10222+75 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | LINE NOT SHOWN ON MATRIX | | | |
| | 10225+00 | 10226+50 | National Grid | Utility (Electric) | | | | Parallel | Overhead Transmission Lines - Route 22 | LINE NOT SHOWN ON MATRIX | | | |
| | 10225+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 404.3 | 110 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10229+75 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10233+80 | 10268+95 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | LINE NOT SHOWN ON MATRIX | | | |
| | 10235+75 | 10236+25 | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | | UGT LINE IN CONFLICT WITH SPLICE VAULT | | | |
| | 10251+20 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | LINE NOT SHOWN ON MATRIX | | | |
| | 10252+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 405.8 | 110 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10265+25 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 416.6 | 76 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10280+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 501.3 | 76 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10300+40 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 517.1 | 88 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10307+55 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 468.4 | 100 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10307+60 | 10377+20 | Verizon | Fiber Cable in HDPE Duct | | | 6970 | Parallel | West Side of Route 22 - Approx. 8' off Edge of Pavement | CHANGED END STATION TO 10377+20 | B | CPA Survey dated 3/22/2022 | |
| | 10311+70 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 438.8 | 82 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10315+10 | | National Grid | Utility (Electric) | | | | Perpendicular | | CONFLICT NOT SHOWN IN MATRIX | | | |
| | 10317+50 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 399.0 | 92 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10322+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 365.5 | 120 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10328+30 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 295.4 | 356 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10346+30 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 192.8 | 115 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10347+00 | 10347+20 | Private | Storm Drainage Pipe/Culvert | 24" | 163.7 | 20 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10351+40 | 10351+73 | Private | Storm Drainage Pipe/Culvert | 24" | 194.2 | 33 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 | |
| | 10355+85 | | National Grid | Utility (Electric) | | | | Perpendicular | | NOT SHOWN ON MATRIX | | | |
| | 10355+90 | | National Grid | Utility (Electric) | | | | Perpendicular | | NOT SHOWN ON MATRIX | | | |
| | 10355+95 | | National Grid | Utility (Electric) | | | | Perpendicular | | NOT SHOWN ON MATRIX | | | |
| | 10359+40 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 120.1 | 52 | Perpendicular | CMP - South Side of Route 22 | Outside proposed alignment | B | CPA Survey dated 3/22/2022 | |

**Champlain Hudson Power Express
Upland Co-located Utility Summation Matrix**

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| Segment | General Location of Utility | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/F) | |
|-------------------|--|-------------------------------------|------------------|-----------------------------|----------|--------------|-----------------------|-------------------------|---|---------------------|-------------------------|----------------------------|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| | 10361+05 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 72" | 105.6 | 202 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10372+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 126.5 | 58 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10373+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10377+25 | 10378+80 | National Grid | Utility (Electric) | | | | Parallel | Overhead Transmission Lines - Route 22 | NOT SHOWN ON MATRIX | | |
| | 10377+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 121.7 | 72 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10378+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10379+95 | 10380+20 | Private | Storm Drainage Pipe/Culvert | 15" | 125.00 | 25 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 10383+25 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 105.5 | 126 | Perpendicular | CMP | | B | CPA Survey dated 3/22/2022 |
| Package 1B | | | | | | | | | | | | |
| | 12516+40 | 12517+50 | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 156.9 | 90 | Parallel | CMP - AT Dresden Rd East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12519+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12520+10 | | Verizon | Fiber Cable in HDPE Duct | | | | | Arc of 5' off Edge of Pavement Northwest Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12520+30 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 135.9 | 188 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12530+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12533+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 72", 72" | 107.2, 108.5 | 112, 112 | Perpendicular | CMP, CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12536+00 | | Verizon | Overhead Telecom | | | | Perpendicular | Overhead crossing at Southeast Side of Rout 22 | | B | CPA Survey dated 3/22/2022 |
| | 12538+35 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12538+70 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 72" | 133.4 | 72 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12542+55 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 153.4 | 92 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12548+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 182.8 | 80 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12550+20 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12551+05 | 12551+35 | Private | Storm Drainage Pipe/Culvert | 18" | 194.0 | 30 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12554+20 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 197.1 | 110 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12556+75 | | Verizon | Overhead Fiber | | | | Perpendicular | Overhead Fiber Crossing - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12560+85 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - P.E. Across N/Mo | | B | CPA Survey dated 3/22/2022 |
| | 12562+40 | | Verizon | Overhead Fiber | | | | Perpendicular | Overhead Fiber Crossing - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12565+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 286.2 | 94 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12567+90 | 12568+20 | Private | Storm Drainage Pipe/Culvert | 24", 12" | 295.4, 292.1 | 30, 30 | Parallel | CMP, CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12575+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12576+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 338.9 | 115 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12579+30 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 341.1 | 112 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12591+50 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12592+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 340.7 | 100 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12593+60 | | Private | Storm Drainage Pipe/Culvert | 12" | 343.1 | 35 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12599+25 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 321.7 | 148 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12604+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 299.3 | 112 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12607+75 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12610+40 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 298.4 | 114 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12610+40 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12610+40 | | National Grid | Utility (Electric) | | | 3910 | Parallel | Overhead Transmission Lines - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12612+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 309.4 | 100 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12613+45 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12619+52 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 338.7 | 90 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12630+98 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 381.2 | 102 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12639+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 409.1 | 122 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |

**Champlain Hudson Power Express
Upland Co-Located Utility Summation Matrix**

Revision Date: 04/05/2022

| Segment | General Location of Utility | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|---------------------------------|--|-------------------------------------|-----------------------------|-----------------------------|----------|--------------|-----------------------|--|---|----------|----------------------------|----------------------------|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| Division B Whitehall Segment 1B | 12643+50 | | Private | Storm Drainage Pipe/Culvert | 30" | 402.4 | 47 | Parallel | CMP - South Side of Route 22 - Approx. 50' South of Alignment | | B | CPA Survey dated 3/22/2022 |
| | 12649+50 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12652+00 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection to House - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12654+45 | | Private | Storm Drainage Pipe/Culvert | 18" | 439.1 | 38 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12655+90 | | Private | Storm Drainage Pipe/Culvert | 15" | 433.9 | 42 | Parallel | HDPE - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12659+25 | | Verizon | Fiber Cable in HDPE Duct | | | | Parallel | West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12664+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24", 24" | 408.3, 406.6 | 114, 120 | Perpendicular | CMP, CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12666+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60", 60" | 390.8, 391.1 | 93, 93 | Perpendicular | CMP, CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12668+45 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12668+90 | 12669+30 | Private | Storm Drainage Pipe/Culvert | 15" | 389.2 | 40 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12669+45 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12668+90 | 12669+30 | Private | Storm Drainage Pipe/Culvert | 15" | 389.2 | 40 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12670+75 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection to House - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12670+90 | 12671+65 | Private | Storm Drainage Pipe/Culvert | 12" | 386.8 | 75 | Parallel | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12672+40 | 12672+70 | Private | Storm Drainage Pipe/Culvert | 18" | 383.8 | 30 | Parallel | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12672+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12672+70 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 36" | 378.8 | 114 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12673+10 | 12673+42 | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 383.8 | 32 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12679+80 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 389.2 | 106 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12687+25 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 378.4 | 122 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12689+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 84" | 374.4 | 178 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12711+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 358.4 | 122 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12714+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 338.7 | 82 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12721+55 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 275.8 | 200 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12724+00 | 12724+20 | Private | Storm Drainage Pipe/Culvert | 15" | 315.3 | 20 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12727+75 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection to House - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12728+85 | 12729+30 | Private | Storm Drainage Pipe/Culvert | 16" | 323.8 | 45 | Parallel | CMP - West/South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12730+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 296.8 | 122 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12737+05 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | Unknown | 343.6 | Unknown | Perpendicular | Heavily Silted CMP | | B | CPA Survey dated 3/22/2022 |
| | 12739+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12744+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 78", 78" | 352.4, 352.5 | 100, 100 | Perpendicular | CMP, CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12748+15 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 325.0 | 181 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12754+95 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 386.7 | 81 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12762+0 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 373.0 | 152 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12764+50 | 12764+90 | Private | Storm Drainage Pipe/Culvert | 12" | 404.9 | 40 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12776+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 337.5 | 226 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12781+25 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12785+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 333.6 | 85 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12787+00 | 12787+37 | Private | Storm Drainage Pipe/Culvert | 24" | 325.5 | 37 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12790+50 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 299.8 | 152 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| 12796+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 249.5 | 145 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| 12800+20 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 | |
| 12802+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 224.2 | 77 | Perpendicular | CMP - West End Not Found | | B | CPA Survey dated 3/22/2022 | |
| 12805+60 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 | |

**Champlain Hudson Power Express
Upland Co-Located Utility Summation Matrix**

Revision Date: 04/05/2022

| Segment | General Location of Utility | | Owner | Utility | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|---------|--|-------------------------------------|----------------------|-----------------------------|------|--------|-----------------------|-------------------------|---|---|-------------------------|----------------------------|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| | 12805+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 228.1 | 142 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12818+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 178.5 | 200 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12820+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 60" | 177.6 | 210 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12822+70 | 12823+00 | Private | Storm Drainage Pipe/Culvert | 18" | 213.3 | 30 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12823+05 | 12823+35 | Private | Storm Drainage Pipe/Culvert | 12" | 213.3 | 40 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12827+60 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 208.3 | 120 | Perpendicular | HDPE - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12836+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 18" | 214.3 | 154 | Perpendicular | HDPE - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12841+20 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 264.3 | 164 | Perpendicular | HDPE - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12841+50 | 12841+30 | Private | Storm Drainage Pipe/Culvert | 18" | 276.0 | 30 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12842+15 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12843+00 | 12843+40 | Private | Storm Drainage Pipe/Culvert | 12" | 282.8 | 40 | Parallel | CMP - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12843+50 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12843+90 | 12844+28 | Private | Storm Drainage Pipe/Culvert | 12" | 287.7 | 38 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12846+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 290.5 | 82 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12852+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12853+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 48" | 302.6 | 82 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12856+65 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 293.6 | 113 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12861+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 291.9 | 110 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12863+25 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 291.9 | 90 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12867+10 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 284.3 | 132 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12877+50 | 12877+90 | Private | Storm Drainage Pipe/Culvert | 18" | 272.2 | 40 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12880+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 227.5 | 160 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 123884+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 247.3 | 106 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12893+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 236.0 | 88 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12900+05 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 194.8 | 107 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12902+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 197.3 | 107 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12907+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 42" | 142.4 | 211 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12911+05 | 12911+86 | Private | Storm Drainage Pipe/Culvert | 18" | 159.0 | 81 | Parallel | CMP - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12912+50 | | Village of Whitehall | Water Line | 12" | | | Perpendicular | West of Route 7 | | B | CPA Survey dated 3/22/2022 |
| | 12913+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12913+95 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12913+95 | | Village of Whitehall | Water Line | 12" | | 1440 | Parallel | Northeast Side of Route 22 - West Side of South Bay | | B | CPA Survey dated 3/22/2022 |
| | 12920+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 113.5 | 67 | Perpendicular | CMP - Adjacent to Route 7A | | B | CPA Survey dated 3/22/2022 |
| | 12921+00 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 7A | | B | CPA Survey dated 3/22/2022 |
| | 12926+00 | | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | North Side of Route 22 (West side of South Bay) | | B | CPA Survey dated 3/22/2022 |
| | 12926+00 | 12926+84 | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 99.3 | 84 | Parallel | CMP - North Side of Route 22 and Crosses Route 7A | | B | CPA Survey dated 3/22/2022 |
| | 12926+00 | 12930+86 | Verizon | Fiber Cable in HDPE Duct | | | 486 | Parallel | Side Side of Route 22 (east side of South Bay) | | B | CPA Survey dated 3/22/2022 |
| | 12946+20 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection - Route 7A (East Side of South Bay) | | B | CPA Survey dated 3/22/2022 |
| | 12946+25 | 12946+65 | Private | Storm Drainage Pipe/Culvert | 18" | 105.7 | 40 | Parallel | North of Route 7A | | B | CPA Survey dated 3/22/2022 |
| | 12949+55 | 12949+95 | Private | Storm Drainage Pipe/Culvert | 15" | 107.4 | 40 | Parallel | CMP - South Side of Route 22 | Outside proposed alignment | B | CPA Survey dated 3/22/2022 |
| | 12950+00 | | Village of Whitehall | Water Line | 12" | | | Perpendicular | North of Route 22 (East Side of Route 22) | Cross this water line twice - second crossing at 12953+00 | B | CPA Survey dated 3/22/2022 |
| | 12950+00 | 12950+40 | Private | Storm Drainage Pipe/Culvert | 18" | 113.5 | 40 | Parallel | CMP - South Side of Route 22 | Outside proposed alignment | B | CPA Survey dated 3/22/2022 |
| | 12954+20 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12954+00 | 12954+42 | Private | Storm Drainage Pipe/Culvert | 12" | 125.7 | 42 | Parallel | CMP - North Side of Route 22 | | B | CPA Survey dated 3/22/2022 |

**Champlain Hudson Power Express
Upland Co-located Utility Summation Matrix**

Revision Date: 04/05/2022

| Segment | General Location of Utility | | Owner | UTILITY | Size | Invert | Utility Length (feet) | Utility | | Comments | Quality Level (A/B/C/D) | |
|---------|--|-------------------------------------|----------------------|-----------------------------|------|--------|-----------------------|-------------------------|--|---|-------------------------|---|
| | Station (Starting Point for Parallel and Crossing Point for Perpendicular) | Station (Ending Point for Parallel) | | | | | | Parallel/ Perpendicular | Description (optional) | | | |
| | | | | | | | | | | | | |
| | 12954+15 | 12954+71 | Private | Storm Drainage Pipe/Culvert | 12" | 126.5 | 56 | Parallel | CMP - South Side of Route 22 | Outside proposed alignment | B | CPA Survey dated 3/22/2022 |
| | 12954+75 | | Village of Whitehall | Water Line | | | | Perpendicular | Crossing Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12958+45 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 72" | 123.7 | 53 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12961+25 | 12961+60 | Private | Storm Drainage Pipe/Culvert | 30" | 130.8 | 35 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12962+10 | 12962+33 | Private | Storm Drainage Pipe/Culvert | 15" | 136.4 | 23 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12962+55 | 12962+78 | Private | Storm Drainage Pipe/Culvert | 15" | 139.0 | 23 | Parallel | CMP - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12966+90 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 150.9 | 91 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12968+15 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12970+00 | 13023+75 | Verizon | Fiber Cable in HDPE Duct | | | 5375 | Parallel | North Side of Route 22 (east side of South Bay) | Very Close to Alignment | B | CPA Survey dated 3/22/2022 |
| | 12970+60 | 12971+35 | Private | Storm Sewer | 12" | 176.1 | 75 | Parallel | HDPE - North Side of Route 22 - Outfall Not Found | | B | CPA Survey dated 3/22/2022 |
| | 12972+25 | | Verizon | Fiber Cable in HDPE Duct | | | | Perpendicular | Crosses Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12975+40 | | National Grid | Utility (Electric) | | | | Parallel | Overhead Transmission Lines - North Side of Route 22 | Also crosses perpendicular at this location | B | CPA Survey dated 3/22/2022 |
| | 12976+00 | | Village of Whitehall | Water Line | | | | Perpendicular | Proposed Water Main | | D | Information provided by DPW |
| | 12975+85 | 12976+29 | Private | Storm Drainage Pipe/Culvert | 12" | 185.6 | 46 | Parallel | Steel - North Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 12977+55 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 169.0 | 247 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13001+75 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 30" | 111.1 | 196 | Perpendicular | CMP - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13001+80 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13006+00 | 13032+25 | Village of Whitehall | Sanitary Sewer | 8" | 122.4 | 3045 | Parallel | PVC - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13006+00 | 13012+80 | Village of Whitehall | Water Line | | | | Parallel | East side of Route 22 | Crosses at 13012+80 | D | Information provided by DPW |
| | 13010+00 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 15" | 138.1 | 40 | Perpendicular | HDPE - West Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13011+75 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection - Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13022+75 | | Village of Whitehall | Sanitary Sewer | 8" | | | Perpendicular | Crosses Route 22 at Neddo St | | B | CPA Survey dated 3/22/2022 |
| | 13022+90 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13028+20 | 13028+60 | Washington County | Storm Drainage Pipe/Culvert | 15" | 102.8 | 40 | Parallel | HDPE - East Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13029+55 | | National Grid | Utility (Electric) | | | | Perpendicular | Overhead Transmission Lines - South Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13030+20 | | NYDOT - Region 1 | Storm Drainage Pipe/Culvert | 24" | 100.8 | 95 | Perpendicular | HDPE - Northeast Side of Route 22 | | B | CPA Survey dated 3/22/2022 |
| | 13032+25 | | Village of Whitehall | Sanitary Sewer | | | | Perpendicular | (2) Sewer lines (one combined with Storm) | | D | Information provided by DPW |
| | 13035+40 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Transmission Lines - Crosses Bellamy St | | B | CPA Survey dated 3/22/2022 |
| | 13037+25 | | Verizon | Overhead Telecomm | | | | Perpendicular | Overhead Service Connection - Crosses Bellamy St | | B | CPA Survey dated 3/22/2022 |
| | 13036+55 | | Village of Whitehall | Storm Drainage Pipe/Culvert | 24" | 97.7 | 60 | Perpendicular | CMP - Crosses Bellamy St | | D | Utility Documents from Village of Whitehall |
| | 13038+00 | 13040+00 | Village of Whitehall | Sanitary Sewer | 8" | 98.9 | 165 | Parallel | DBP - Bellamy St | Package 1C will cross at east end of Bellamy St | B | CPA Survey dated 3/22/2022 |
| | 13038+00 | 13040+00 | Village of Whitehall | Water Line | 8" | | | Parallel | Bellamy St - Crosses RR to the east | Water Main was identified on North Side of Bellamy St | D | Utility Documents from Village of Whitehall |
| | | | | | | | | Perpendicular | | | | |
| | | | | | | | | Parallel | | | | |

Utility quality level defined as follows:

Four separate quality levels of subsurface utility facility information are generally recognized and are as follows:

- Quality Level A (QLA): Quality Level A is the highest degree of accuracy. The information shown on the plans has been obtained by the actual exposure (or verification of previously exposed and surveyed utility facilities) of subsurface utilities, using (typically) minimally intrusive excavation equipment to determine their precise horizontal and vertical positions, as well as their other utility facility attributes. (Shown as QLA)
- Quality Level B (QLB): Quality Level B is the second highest degree of accuracy. The information shown on the plans has been obtained through the application of accurate surface geophysical methods (i.e., underground camera, radar, sonar, etc.)

From: Khanh.Tran <Khanh.Tran@kiewit.com>
Sent: Thursday, January 27, 2022 11:42 AM
To: lauren.snyder@nationalgrid.com; roy.schultz@nationalgrid.com
Subject: CHPE - Utility Plates/As-builts (Electric/National Grid/Niagara Mohawk)
Importance: High

Hi Lauren/ Roy;

I hope all is well.

TDI is currently working with Kiewit Engineering Group (KEG) to construct the Champlain Hudson Power Express (CHPE) high voltage transmission line to provide renewable electricity directly to New York City. We are currently advancing detailed engineering and construction plans, and we are reaching out to you to obtain utility records /data/ information along the project alignment. Attached in this email is the KMZ file of the entire project alignment, broken down into packages/ segments for ease in navigation.

As you know, we are working tirelessly to bring clean energy to the State of New York. Time is of the essence; we respectfully ask that you expedite the information requests so that we can all minimize the impacts to your co-located utility infrastructure.

Please kindly transmit information/ data requested based on Package priority as follows:

Package 1, 2 & 5 (by 02/02/22)

Package 3 & 6 (by 02/04/22)

Package 4, 7 & 8 (by 02/09/22)

Copies of our design plans will be transmitted to your office as soon as available.

Thank you for your continued cooperation and if you have any questions, or require additional information, please contact me at (860)-559-4514 (M), and or email at Khanh.Tran@kiewit.com

Best,
Kim Tran

©Kiewitt

Khanh Tran (Kim), PE, ENV SP

Design Engineering

KIEWIT ENGINEERING GROUP, INC.

M: 860-559-4514

Champlain Hudson Power Express Upland Co-Located Infrastructure Fact Sheet

Project Background

- The Champlain Hudson Power Express (CHPE) is a 339-mile underground and underwater high voltage direct current (HVDC) electric transmission line that will import up to 1,250 MW of renewable power from Canada and send it to the New York City metro area.
- Transmission Developers Inc. (TDI) is the developer of the project.
- TDI is owned by Blackstone, a company based in New York.
- The transmission line is fully permitted at the State and Federal level and has been under development for roughly 10 years.
- The upland portion of the transmission line will be located primarily within transportation corridor (railway or highway) rights-of-way.

Construction Timing & EM&CP

- Construction is anticipated for 2022 -2025
- A map of the Project is included as Attachment A.
- Prior to construction commencing, CHPE must file an Environmental Management & Construction Plan (EM&CP) and receive approval from the State for this segment prior to installing the transmission line cables. The EM&CP will include detailed construction means and methods, and schedule. The EM&CP will be subject to public review and your organization will have the opportunity to review it before it becomes final.

- In preparation for that filing, TDI needs to coordinate with owners co-located infrastructure (CI) along this permitted route.
- TDI would like to (1) establish a contact with someone at your company/town who is responsible for this CI; (2) understand your process for discussing utility crossings; and (3) answer questions.

Overview of CI crossings and CHPE construction

- The underground portion of the buried transmission line will be installed in a trench approximately three (3) feet wide and five (5) feet deep and will require minimal or no maintenance during its 60+ year operational life (Typical trench detail - [Attachment B](#)).
- Within the trench, the cables will be installed in plastic conduit. There will also be a fiber optic cable installed within the trench.
- Proposed underground installation will be primarily in the shoulders of roadways, under the road's pavement or along the edge of the Canadian Pacific or CSX railroad rights-of-way.
- Once the cables are installed, the ground will be restored.
- Directly over the transmission lines, vegetation maintenance will be required to ensure deep rooted trees do not grow. Otherwise, no maintenance is needed.
- TDI has worked closely with the local towns, NYSDOT, and the Canadian Pacific and CSX railroads regarding CHPE, and it is coordinating the final design with them.
- Depending on the depth of the existing overland CI infrastructure, if within the 15 ft depth range, our preferred approach is to install our HVDC cables

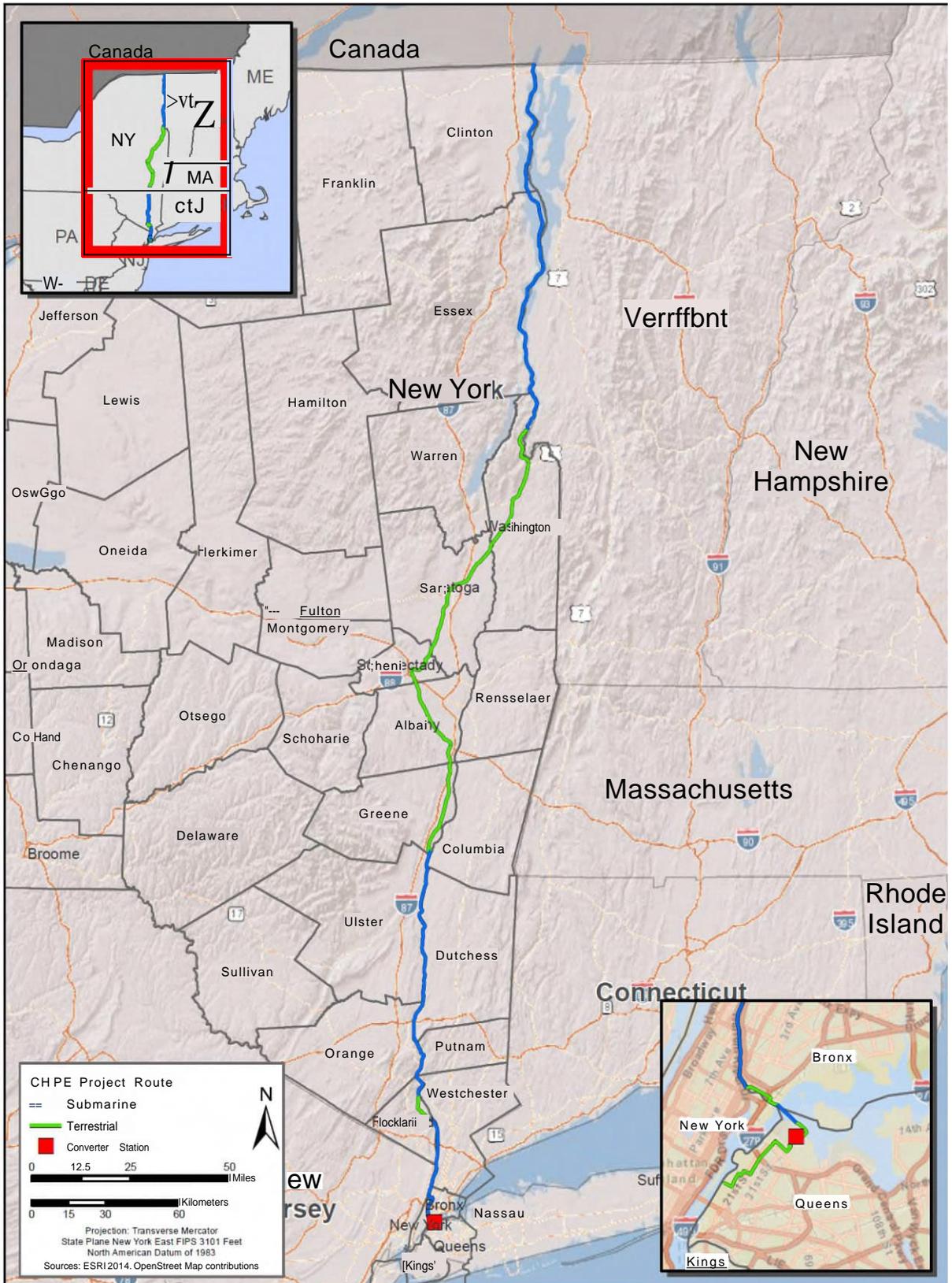
under all buried infrastructure. TDI will accomplish that by working with the CI-owners to establish the best methodology for exposing, supporting, and performing our cable installation under the existing infrastructure. (Typical crossing under CI - Attachment C)

- Our proposal for crossing under CI will follow industry standard crossing methods. Adequate temporary construction supports will be provided for the exposed co-located utilities below grade.
- For deeper CI (usually greater than 15ft) or when there is significant concentration of CI infrastructure within a particular area, horizontal directional drilling (HDD) will be employed to cross under the existing utilities.
- For proposed HDDs, two bored conduits approximately separated at a minimum distance of 15 ft will be installed following the required depth to house the HVDC cables.
- In the event TDI cannot install its cable conduit under buried infrastructure, it will cross over the existing CI utilities via open trench, provided that the minimum cover of 60 inches can be provided over the proposed HVDC cables in roadway and 30 inches of cover in roadside, other vegetated areas and within railroad right-of-way per the below detail (Typical crossing over CI - Attachment D).
- In crossing the existing co-located utilities, TDI and their contractors shall also install the proposed HVDC cables with at least the minimum clearance criteria specified by each individual utility owner.
- Regarding proposed trench installation over existing large municipal storm culverts, an underground utility bridging support structure will be

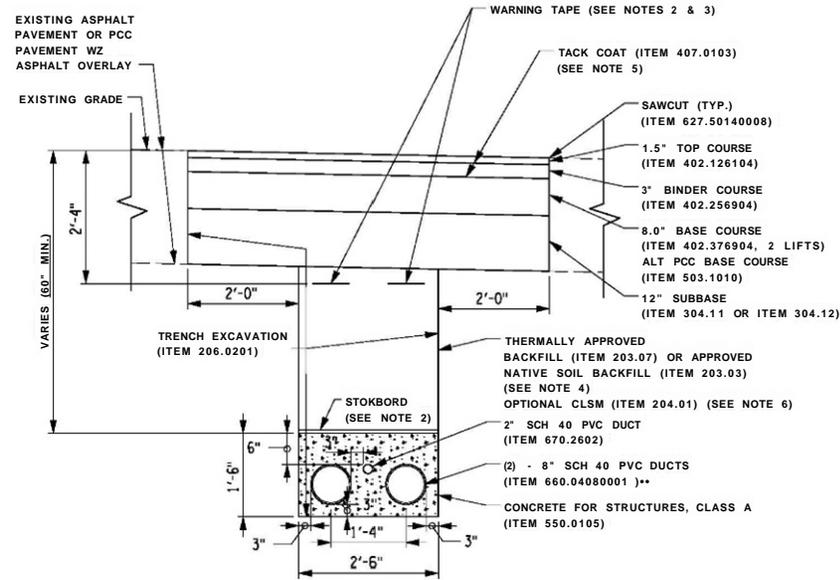
constructed to allow the proposed HVDC cables to be self-supported across the span in the event the storm culverts require future repair or replacement. (Typical CI support - Attachment E.)

- As part of development of a crossing plan for your CI, TDI will work with the respective CI owners, to:
 - o Establish and conduct a subsurface utility survey to determine the precise location of the infrastructure within the limits of the proposed CHPE cable installation, including:
 - Depth from roadway and/or ground surface
 - Physical width and footprint occupied by the CI
 - Existence of CI supporting structures to be avoided
 - o Confirm proposed crossing installation including the requirements for CI temporary support.
 - o Eventually, based on this information, TDI will work with each CI owner to consummate a formal CI agreement as necessary.

Attachment A



Attachment B



TYPICAL FLAT CABLE ALIGNMENT IN DUCTBANK
TRENCH CROSS SECTION (ROADWAY INSTALLATION)

SCALE: 1"=2'

| ITEM | DESCRIPTION |
|----------------|--|
| 203.07 | EMBANKMENT IN PLACE |
| 203.07 | SELECT GRANULAR FILL |
| 203.07 | CONTROLLED LOW STRENGTH MATERIAL |
| 206.0201 | TRENCH AND CULVERT EXCAVATION |
| 304.11 | SUBBASE COURSE, TYPE 1 |
| 304.12 | SUBBASE COURSE, TYPE 2 |
| 402.126104 | 12.5 F1 TOP COURSE HMA, 60 SERIES COMPACTION |
| 402.256904 | 25 F9 BINDER COURSE HMA, 60 SERIES COMPACTION |
| 402.376904 | 37.5 F9 BASE COURSE HMA, 60 SERIES COMPACTION |
| 407.0105 | STRAIGHT TACK COAT |
| 555.0105 | CONCRETE FOR STRUCTURES, CLASS A |
| 627.50140008 | CUTTING PAVEMENT |
| 660.04080001** | FURNISH AND INSTALL PVC UTILITY CONDUIT - 8 INCH |
| 670.2602 | RIGID PLASTIC CONDUIT, 2" |

*SPECIAL SPEC
**SPECIAL NOTE: FOLLOW SPECIAL SPECIFICATION 660.04060001. CONDUIT SIZE, FITTINGS AND CONNECTIONS TO BE REVISED TO 8" AND SCHEDULE TO BE SCH 40.

- NOTES:
1. FILL MATERIAL SHALL HAVE THERMAL RESISTIVITY OF 1.0 K-mZW OR LESS.
 2. FITTINGS, CONNECTIONS, WARNING TAPE, AND STOKBORD WILL BE INCLUDED UNDER ITEM 660.04080001.
 3. WARNING TAPE DEPTH TO MEET THE REQUIREMENTS OF NEC SECTION 300.5(D)(3).
 4. FOR INSTALLATION NOT LOCATED IN ROADWAYS. APPROVED NATIVE SOIL BACKFILL WILL EXTEND TO WITHIN FOUR (4) INCHES OF EXISTING GRADE.
 5. TACK COAT SHALL BE APPLIED TO ALL EXPOSED EDGES AND BETWEEN EVERY LIFT.

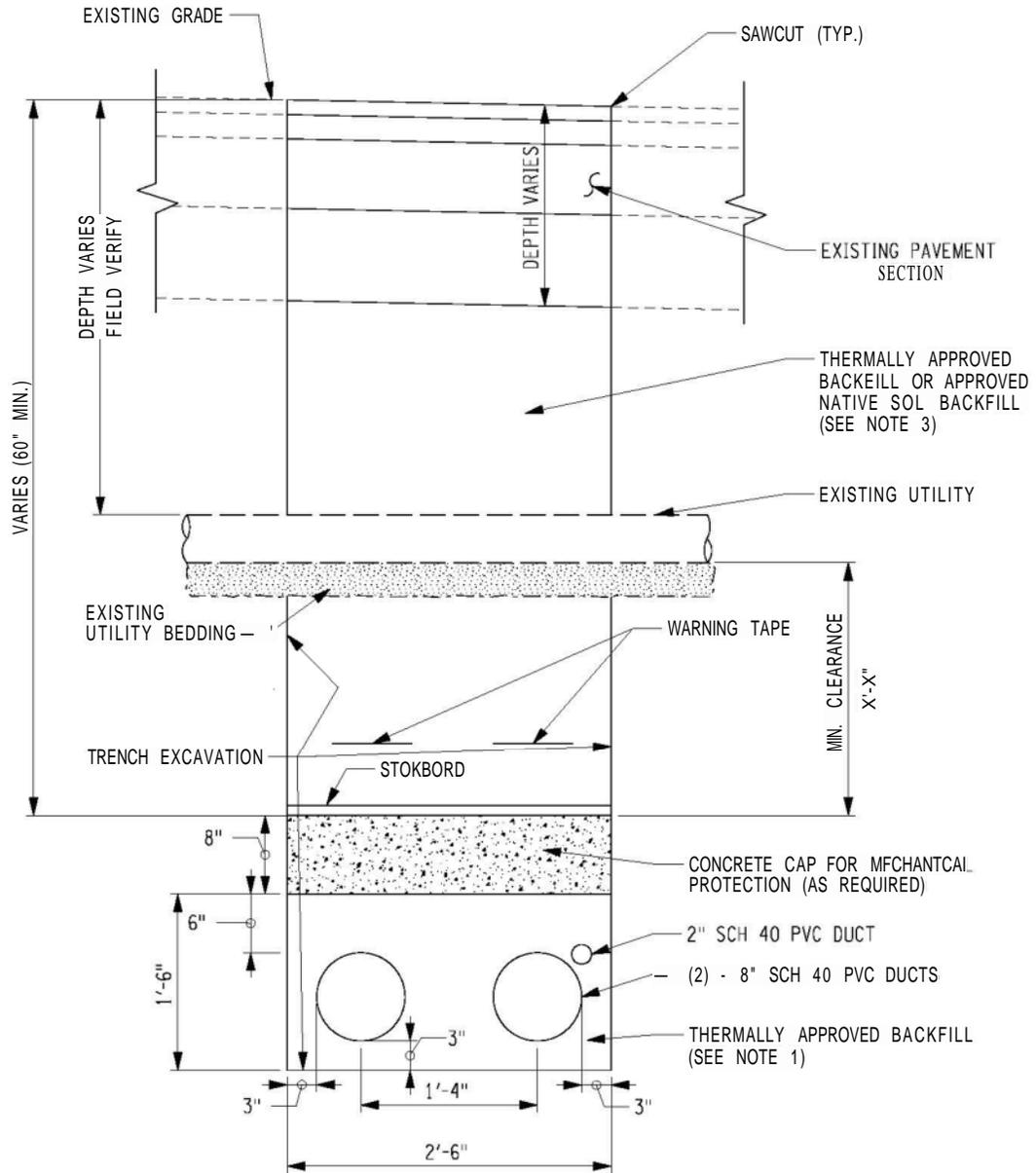
| | |
|-------------|--------------|
| ALIGNED ON: | APPROVED ON: |
| SIGNATURE: | SIGNATURE: |
| STAMP: | STAMP: |

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 SIGN AND DATE THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

| REVISIONS | | | |
|-----------|-------------|----|-----|
| DATE | DESCRIPTION | BY | SYM |
| | | | |
| | | | |
| | | | |

| | | |
|--|---|-------------------------------------|
| TOUOKSIOHCOVELOHKS.HC. 1301 AVENUE OF THE AMERICAS NEW YORK, NY 10019-6022 | TITLE OF PROJECT CLAMPLAIN HUDSON POTER EXPRESS | CONTRACT NUMBER: 60323056 |
| A=COM | LOCATION OF PROJECT | DATE: 03/04/2021 |
| | DESCRIPTION OF PROJECT TYPICAL TRENCH CROSS SECTION WITH PVC CONDUIT IN DXTBAM | DRAWING NUMBER: |

Attachment C



TYPICAL UTILITY CROSSING DETAIL

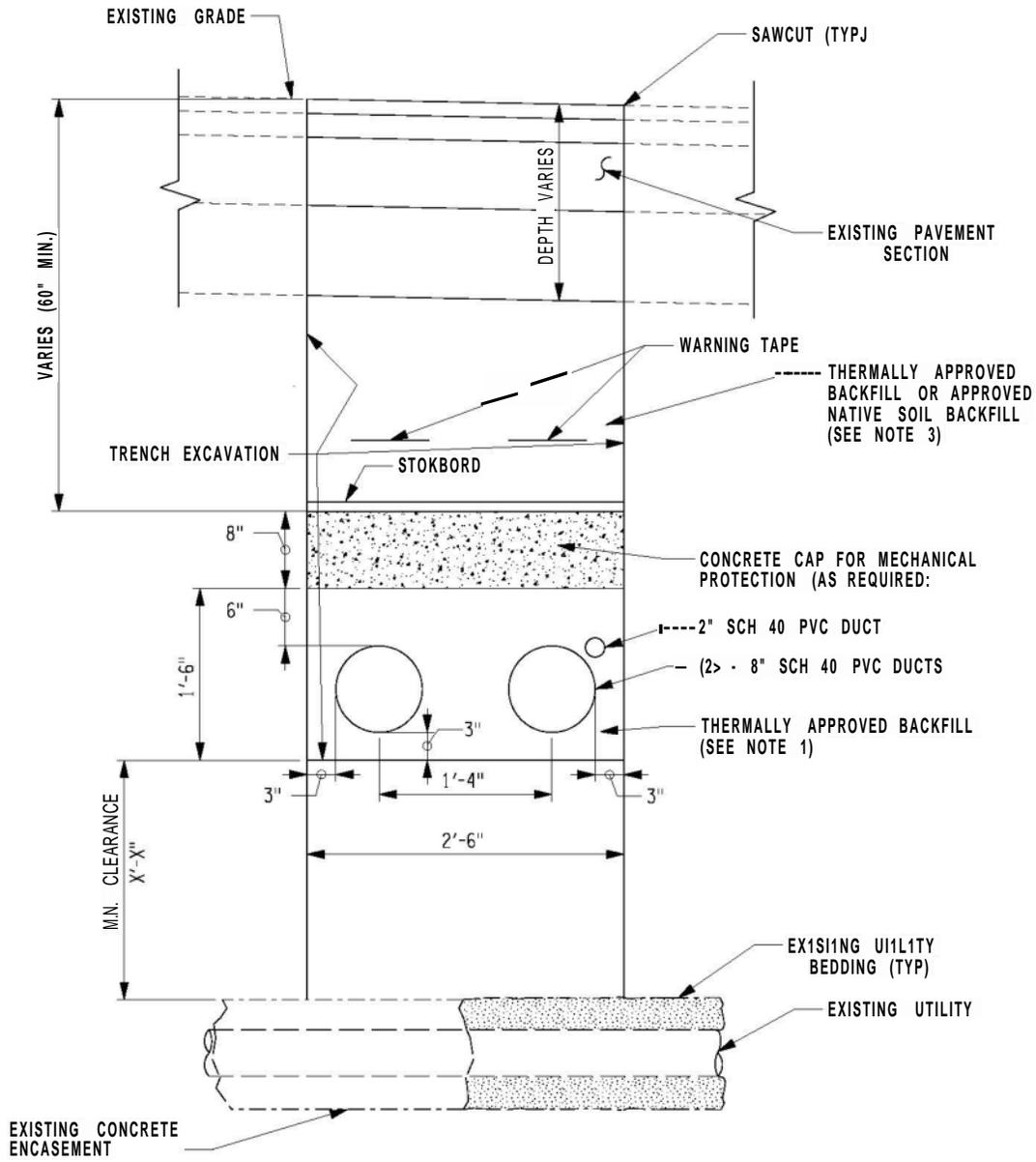
NOTES:

NOT TO SCALE

1. FILL MATERIAL SHALL HAVE THERMAL RESISTIVITY OF 1.0 K*m/W OR LESS.
2. WARNING TAPE DEPTH TO MEET THE REQUIREMENTS OF NEC SECTION 300.5(D)(3).
3. FOR INSTALLATION NOT LOCATED IN ROADWAYS, APPROVED NATIVE SOL BACKFILL WILL EXTEND TO WITHIN FOUR (4) FEET OF EXISTING GRADE.

| | | | |
|---|---------------|---------------------------------|------------|
| CHAMPLAIN HUDSON POWER EXPRESS TRANSMISSION DEVELOPERS, INC. AECOM | PRWEC TITLE | LOCATIONS | DATE: |
| | DRAWING TITLE | TYPICAL UTILITY CROSSING DETAIL | 07/07/2020 |
| | | CPAWNCHUMBER: | FIG XX |

Attachment D



TYPICAL UTILITY CROSSING OVER DETAIL

NOTES:

NOT TO SCALE

1. FILL MATERIAL SHALL HAVE THERMAL RESISTIVITY OF 1.0 K'm/W OR LESS.
2. WARNING TAPE DEPTH TO MEET THE REQUIREMENTS OF NFC SECTION 300.5(D)(3).
3. FOR INSTALLATION NOT LOCATED IN ROADWAYS, APPROVED NATIVE SOIL BACKFILL WILL EXTEND TO WITHIN FOUR (4) INCHES OF EXISTING GRADE.

DESIGNED BY: _____ CHECKED BY: _____ DRAFTED BY: _____

| | | |
|---|---|---------------------------|
| PIQJ CT TITLE LOCATIONS | | |
| CHAMPLAIN HUDSON POWER EXPRESS TRANSMISSION DEVELOPERS, INC. | DRAWING TITLE | DATE: 07/07/2020 |
| ASCOM | TYPICAL UTILITY CROSSING OVER DETAIL | DRAWING NUMBER: FIG XX |

Attachment E

AZCOM

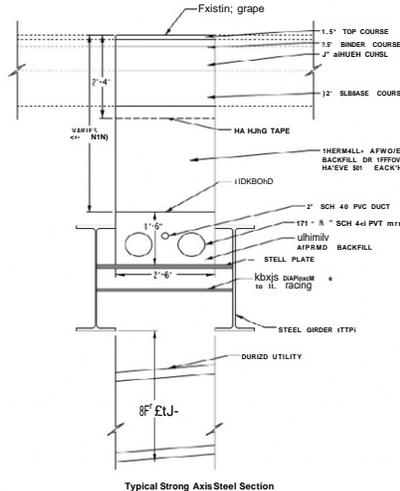
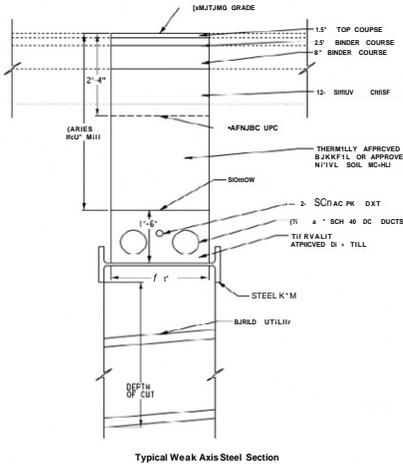
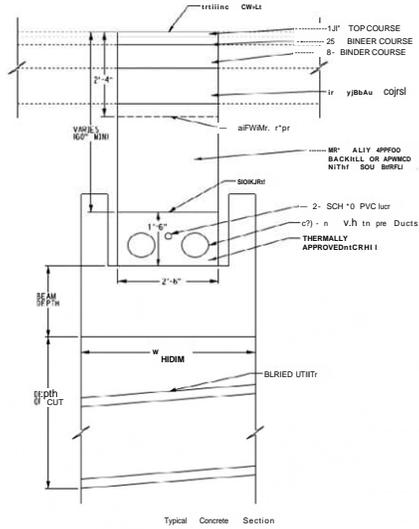
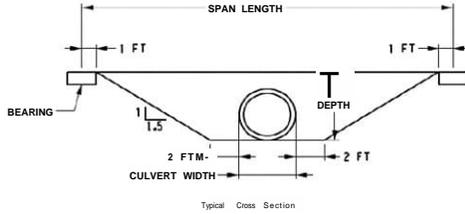
AECUM U.S.A., INC.
40 British American Blvd.
Latham, NY 12110

PROJECT NO. 8932956
Prepared By: **IMP** Date: 12/1/2020
Reviewed By: **MWDO** Date: 12/1/2020
Approved By: _____ Date: _____

CALCULATION SHEET

Client: **TDJ** Subject: **Underground Utility Support**

Description: Preliminary Review of Utility Support Options over culvert replacements
Details:

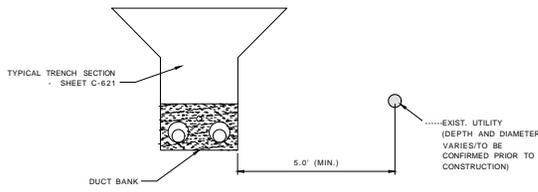


Support Sizes

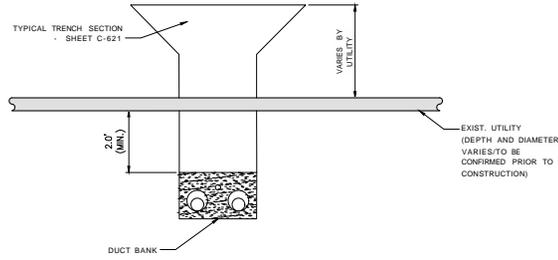
| Culvert Width (ft) | Depth of Cut (ft) | | | | | | | | | | | | | | | | | | | |
|--------------------|-------------------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | | | |
| 1.38 | 1-A | 2-A | 3-C | 4-D | 5-E | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 1.65 | 1-A | 2-A | 3-C | 4-D | 5-E | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 1.92 | 1-A | 2-A | 3-C | 4-D | 5-E | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 2.50 | 1-A | 3-B | 3-C | 4-D | 5-E | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 3.08 | 1-A | 3-B | 4-D | 5-D | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 3.67 | 1-A | 3-B | 4-D | 5-L | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 4.00 | 1-A | 3-B | 4-D | 5-D | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 4.50 | 2-A | 3-C | 4-D | 5-F | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |
| 5.00 | 2-A | 3-C | 4-D | 5-F | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | | | | |

| Type | Steel Beam Size |
|------|-------------------------------|
| 1 | W36X231 Weak Axis Support |
| 2 | W36X247 Weak Axis Support |
| 3 | W36X330 Weak Axis Support |
| 4 | W36X395 Weak Axis Support |
| 5 | 21W36X135 Strong Axis Support |
| 6 | 21W36X231 Strong Axis Support |

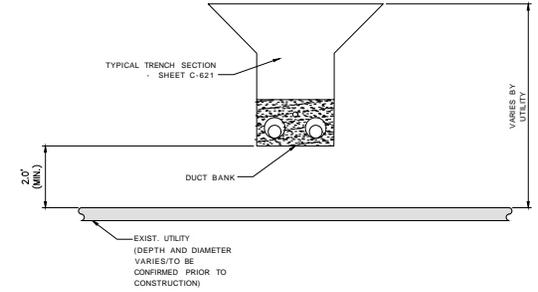
| Type | Concrete Beam Width | Beam Depth |
|------|---------------------|------------|
| A | 52 | 18 |
| B | 52 | 20 |
| C | 52 | 24 |
| D | 52 | 30 |
| E | 52 | 36 |



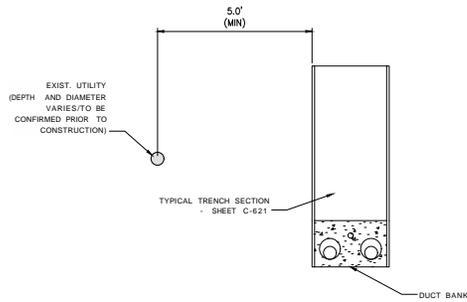
1 OPEN TRENCH - HORIZONTAL SEPARATION
NOT TO SCALE



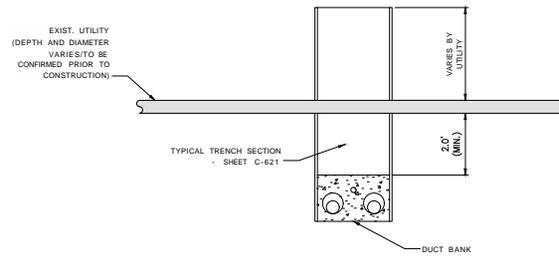
3 OPEN TRENCH - VERTICAL SEPARATION (UNDER)
NOT TO SCALE



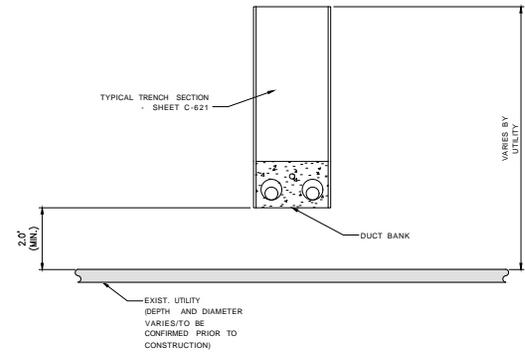
5 OPEN TRENCH - VERTICAL SEPARATION (OVER)
NOT TO SCALE



2 TYPICAL DUCTBANK IN ROADWAY - HORIZONTAL SEPARATION
NOT TO SCALE



4 TYPICAL DUCTBANK IN ROADWAY - VERTICAL SEPARATION (UNDER)
NOT TO SCALE



6 TYPICAL DUCTBANK IN ROADWAY - VERTICAL SEPARATION (OVER)
NOT TO SCALE



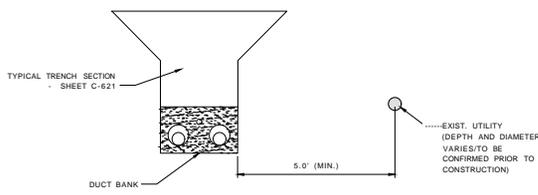
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE ALTERING ENGINEER, ARCHITECT,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

| No. | DATE | SUBMITTAL / REVISION DESCRIPTION | DB | APP |
|-----|--------|----------------------------------|-----|-----|
| A | 4/8/22 | 100% FINAL SUBMISSION | WSO | |

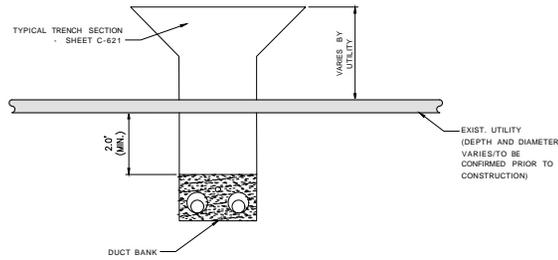
CHAMPLAIN HUDSON POWER EXPRESS
PACKAGE 1 A- PUTNAM TO DRESDEN
UTILITY TYPICAL
SEPARATION DETAILS

| | |
|--------------------|--------|
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| CHA PROJECT NO. | 066076 |
| DRAWING NO. | C-901 |

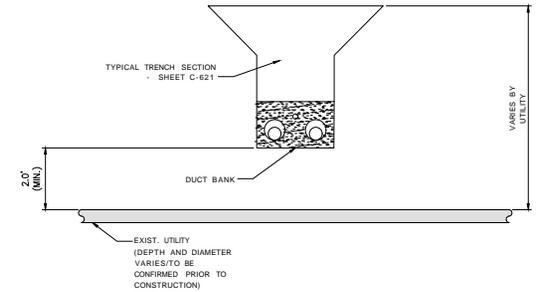
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SCALE: REV. NO. A SHNG XXX OF XXX



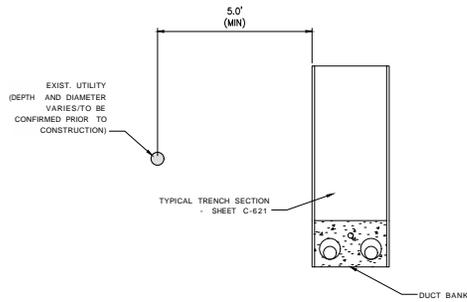
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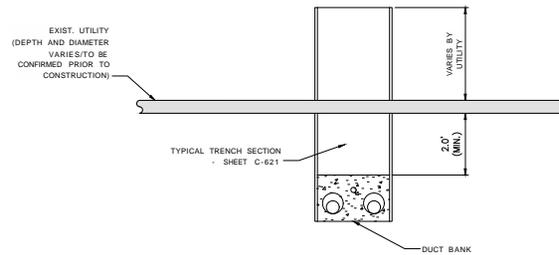
3 OPEN TRENCH - VERTICAL SEPARATION (UNDER) - NOT TO SCALE



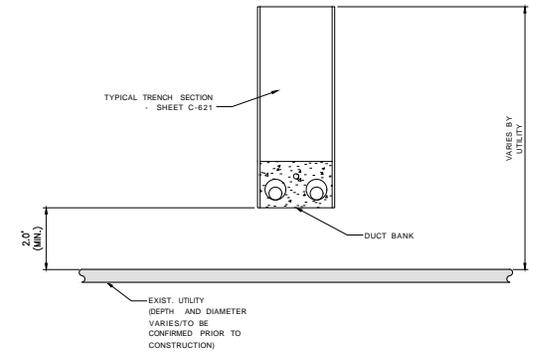
5 OPEN TRENCH - VERTICAL SEPARATION (OVER) - NOT TO SCALE



2 TYPICAL DUCTBANK IN ROADWAY - HORIZONTAL SEPARATION - NOT TO SCALE



4 TYPICAL DUCTBANK IN ROADWAY - VERTICAL SEPARATION (UNDER) - NOT TO SCALE



6 TYPICAL DUCTBANK IN ROADWAY - VERTICAL SEPARATION (OVER) - NOT TO SCALE



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| No. | DATE | SUBMITTAL / REVISION DESCRIPTION | DB | APP |
|-----|--------|----------------------------------|-----|-----|
| A | 4/8/22 | 100% FINAL SUBMISSION | WSO | |

CHAMPLAIN HUDSON POWER EXPRESS
PACKAGE 1 B - ROUTE 22: DRESDEN - WHITEHALL
UTILITY TYPICAL
SEPARATION DETAILS

| | |
|--------------------|--------|
| KIEWIT PROJECT NO. | 21162 |
| CHA PROJECT NO. | 066076 |
| DRAWING NO. | C-901 |

DRAWN BY: 1 WSO DESIGNED BY: 1 WSO APPROVED BY: SCALE: AS NOTED DATE: XX/XX/XXXX
REV. NO. A SHNG XXX OF XXX

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W:\P\PROJECTS\CHAMPLAIN\1B\1B - C-HUD.DWG - Sheet - 4/7/2022 11:50:36 AM Printed: 4/7/2022 11:52:52 AM Current User: William Davis Last Saved By: William Davis

Cole, Benjamin

From: Cole, Benjamin
Sent: Wednesday, April 13, 2022 4:24 PM
To: Im5215@att.com
Subject: CHPE Collocated Infrastructure Details_1A/1B_ATT
Attachments: CHPE-Package 1A-ATT Package-2022 04 13.pdf; ATT Package_1A Matrix.pdf

Dear Mr. Marello,

I'm writing on behalf of Transmission Developers Inc. ("TDI"), owner of the Champlain Hudson Power Express ("CHPE" or "Project") transmission line project. The purpose of this correspondence is to provide more detailed information related to how the CHPE project is designed to cross your infrastructure and to solicit feedback from your company regarding the Project's alignment.

As you may recall from previous communications from Rick Chase at TDI, the CHPE is a fully permitted 339-mile underground and underwater high voltage direct current (HVDC) electric transmission line that will import up to 1,250 MW of renewable power from Canada and send it to the New York City metro area (see <https://chpexpress.com> for additional information).

Attached please find design drawings of the proposed CHPE alignment where it involves your infrastructure within the Segments 1A/1B Environmental Management and Construction Plan ("EM&CP 1A/1B").

TDI will be submitting these plans to the New York State Public Service Commission ("PSC") for portions of the Project in the Towns of Putnam, Dresden and Whitehall, and the Village of Whitehall. This information is a follow-up to previous communications to you providing general project information and typical infrastructure crossing drawings.

Please review the attached information regarding the CHPE alignment relating to your infrastructure and provide your concurrence of the Project's cables separation and alignment and any feedback to me (ben.cole@wsp.com) by April 29, 2022. It is important to TDI that the construction and operation of the CHPE does not interfere with the continued operation of your infrastructure.

To the extent that the CHPE line crosses your infrastructure within future Segment EM&CP submissions, we will provide you with similar drawings in advance of those filings. I look forward to coordinating with you as we finalize the design of the CHPE.

Sincerely,

Ben Cole
WSP USA, on behalf of TDI
(716) 289-1707
ben.cole@wsp.com

Cole, Benjamin

From: Cole, Benjamin
Sent: Wednesday, April 13, 2022 4:33 PM
To: David.Vega@lumen.com; lucas.stubbs@lumen.com
Subject: CHPE Collocated Infrastructure Details_1A/1B_Lumen
Attachments: L3 Package_1A Matrix.pdf; CHPE-Package 1A-L3 Package-2022 04 13.pdf

Dear Mr. Stubbs and Mr. Vega,

I'm writing on behalf of Transmission Developers Inc. ("TDI"), owner of the Champlain Hudson Power Express ("CHPE" or "Project") transmission line project. The purpose of this correspondence is to provide more detailed information related to how the CHPE project is designed to cross your infrastructure and to solicit feedback from your company regarding the Project's alignment.

As you may recall from previous communications from Rick Chase at TDI, the CHPE is a fully permitted 339-mile underground and underwater high voltage direct current (HVDC) electric transmission line that will import up to 1,250 MW of renewable power from Canada and send it to the New York City metro area (see <https://chpexpress.com> for additional information).

Attached please find design drawings of the proposed CHPE alignment where it involves your infrastructure within the Segments 1A/1B Environmental Management and Construction Plan ("EM&CP 1A/1B").

TDI will be submitting these plans to the New York State Public Service Commission ("PSC") for portions of the Project in the Towns of Putnam, Dresden and Whitehall, and the Village of Whitehall. This information is a follow-up to previous communications to you providing general project information and typical infrastructure crossing drawings.

Please review the attached information regarding the CHPE alignment relating to your infrastructure and provide your concurrence of the Project's cables separation and alignment and any feedback to me (ben.cole@wsp.com) by April 29, 2022. It is important to TDI that the construction and operation of the CHPE does not interfere with the continued operation of your infrastructure.

To the extent that the CHPE line crosses your infrastructure within future Segment EM&CP submissions, we will provide you with similar drawings in advance of those filings. I look forward to coordinating with you as we finalize the design of the CHPE.

Sincerely,

Ben Cole
WSP USA, on behalf of TDI
(716) 289-1707
ben.cole@wsp.com

Cole, Benjamin

Subject: FW: CHPE Collocated Infrastructure Details_1A/1B_Verizon

From: Cole, Benjamin <Ben.Cole@wsp.com>
Sent: Thursday, April 14, 2022 9:07 AM
To: Chambers, Sandra <Sandra.Chambers@wsp.com>
Subject: CHPE Collocated Infrastructure Details_IA/IB_Verizon

To: nathaniel.hill@verizon.com

One or more files have been sent to you:

[CHPE-PackageIA-Verizon Package-2022 04 11.pdf](#) (25.07 MB)

[CHPE-PackageIB-Verizon Package -2022 04 08.pdf](#) (20.56 MB)

[VZN Package 1A Matrix.pdf](#) (432.58 KB)

[VZN Package IB Matrix.pdf](#) (474.63 KB)

Click the link above to retrieve files.

You may be prompted to register an account if authentication is required.

These links will expire on 5/14/2022 1:07:05 PM

Dear Mr. Hill, I'm writing on behalf of Transmission Developers Inc. ("TDI"), owner of the Champlain Hudson Power Express ("CHPE" or "Project") transmission line project. The purpose of this correspondence is to provide more detailed information related to how the CHPE project is designed to cross your infrastructure and to solicit feedback from your company regarding the Project's alignment. As you may recall from previous communications from Rick Chase at TDI, the CHPE is a fully permitted 339-mile underground and underwater high voltage direct current (HVDC) electric transmission line that will import up to 1,250 MW of renewable power from Canada and send it to the New York City metro area (see <https://chpexpress.com> for additional information). Please find design drawings for download, that depict the proposed CHPE alignment where it involves your infrastructure within the Segments 1A/1B Environmental Management and Construction Plan ("EM&CP 1A/1B"). TDI will be submitting these plans to the New York State Public Service Commission ("PSC") for portions of the Project in the Towns of Putnam, Dresden and Whitehall, and the Village of Whitehall. This information is a follow-up to previous communications to you providing general project information and typical infrastructure crossing drawings. Please review the attached information regarding the CHPE alignment relating to your infrastructure and provide your concurrence of the Project's cables separation and alignment and any feedback to me (ben.cole@wsp.com) by April 29, 2022. It is important to TDI that the construction and operation of the CHPE does not interfere with the continued operation of your infrastructure. To the extent that the CHPE line crosses your infrastructure within future Segment EM&CP submissions, we will provide you with similar drawings in advance of those filings. I look forward to coordinating with you as we finalize the design of the CHPE. Sincerely, Ben Cole WSP USA, on behalf of TDI (716) 289-1707 ben.cole@wsp.com

Cole, Benjamin

Subject: FW: CHPE Collocated Infrastructure Details_1A/1B_National Grid

From: Cole, Benjamin <Ben.Cole@wsp.com>
Sent: Thursday, April 14, 2022 9:18 AM
To: Chambers, Sandra <Sandra.Chambers@wsp.com>
Subject: CHPE Collocated Infrastructure Details_1A/1B_National Grid

To: Lauren.Snyder@nationalgrid.com, Pamela.aspinall@nationalgrid.com

One or more files have been sent to you:

[CHPE-PackageIA-National Grid Package-2022 04 11.pdf](#) (24.75 MB)

[CHPE-PackageIB-National Grid Package-2022 04 08.pdf](#) (29.15MB)

[National Grid Package 1A Matrix.pdf](#) (426.81 KB)

[National Grid Package 1B Matrix.pdf](#) (477.48 KB)

Click the link above to retrieve files.

You may be prompted to register an account if authentication is required.

These links will expire on 5/14/2022 1:17:31 PM

Dear Ms. Aspinall and Ms. Snyder, I'm writing on behalf of Transmission Developers Inc. ("TDI"), owner of the Champlain Hudson Power Express ("CHPE" or "Project") transmission line project. The purpose of this correspondence is to provide more detailed information related to how the CHPE project is designed to cross your infrastructure and to solicit feedback from your company regarding the Project's alignment. As you may recall from previous communications from Rick Chase at TDI, the CHPE is a fully permitted 339-mile underground and underwater high voltage direct current (HVDC) electric transmission line that will import up to 1,250 MW of renewable power from Canada and send it to the New York City metro area (see <https://chpexpress.com> for additional information). Please find design drawings for download, that depict the proposed CHPE alignment where it involves your infrastructure within the Segments 1A/1B Environmental Management and Construction Plan ("EM&CP 1A/1B"). TDI will be submitting these plans to the New York State Public Service Commission ("PSC") for portions of the Project in the Towns of Putnam, Dresden and Whitehall, and the Village of Whitehall. This information is a follow-up to previous communications to you providing general project information and typical infrastructure crossing drawings. Please review the attached information regarding the CHPE alignment relating to your infrastructure and provide your concurrence of the Project's cables separation and alignment and any feedback to me (ben.cole@wsp.com) by April 29, 2022. It is important to TDI that the construction and operation of the CHPE does not interfere with the continued operation of your infrastructure. To the extent that the CHPE line crosses your infrastructure within future Segment EM&CP submissions, we will provide you with similar drawings in advance of those filings. I look forward to coordinating with you as we finalize the design of the CHPE. Sincerely, Ben Cole WSP USA, on behalf of TDI (716) 289-1707 ben.cole@wsp.com