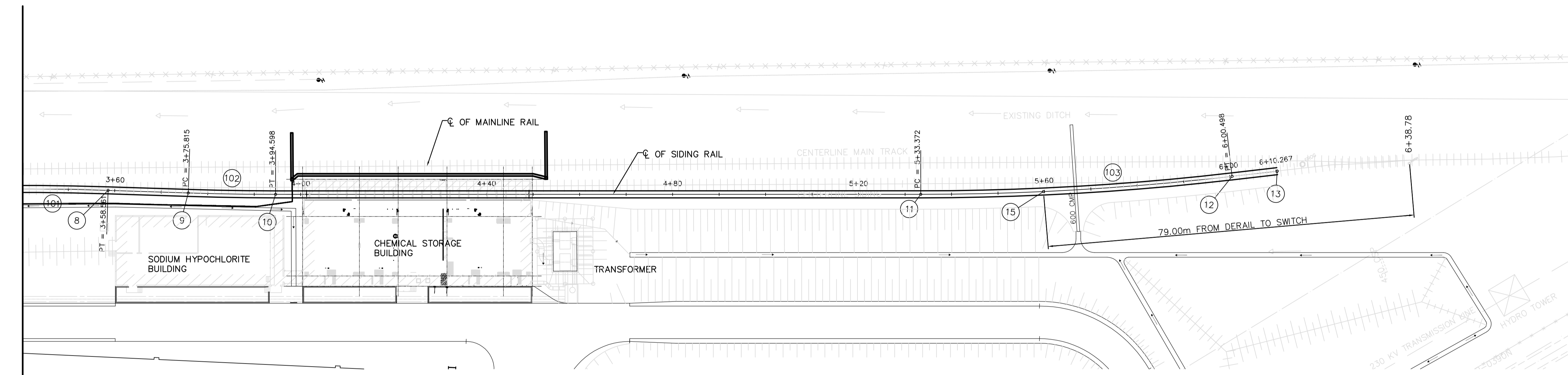


1 PLAN - MAINLINE, SIDING & CROSSOVER RAIL

| UTM COORDINATE CROSS-OVER RAIL LAYOUT |                 |             |            |
|---------------------------------------|-----------------|-------------|------------|
| POINT I.D.                            | DESCRIPTION     | NORTHING    | EASTING    |
| 1                                     | POINT OF SWITCH | 5524182.766 | 647847.280 |
| 2                                     | POINT OF INT.   | 5524178.397 | 647855.183 |
| 3                                     | POINT OF INT.   | 5524155.903 | 647886.952 |
| 4                                     | POINT OF SWITCH | 5524151.533 | 647894.855 |

| UTM COORDINATE SIDING RAIL LAYOUT |                 |             |            |
|-----------------------------------|-----------------|-------------|------------|
| POINT I.D.                        | DESCRIPTION     | NORTHING    | EASTING    |
| 5                                 | CENTRE RAIL     | 5524252.443 | 647712.554 |
| 6                                 | CENTRE RAIL     | 5524244.283 | 647727.115 |
| 7                                 | CENTRE RAIL     | 5524138.031 | 647919.273 |
| 8                                 | CENTRE RAIL     | 5524126.874 | 647938.569 |
| 9                                 | CENTRE RAIL     | 5524117.953 | 647953.338 |
| 10                                | CENTRE RAIL     | 5524108.503 | 647969.569 |
| 11                                | CENTRE RAIL     | 5524040.620 | 648090.608 |
| 12                                | CENTRE RAIL     | 5524011.229 | 648150.916 |
| 13                                | CENTRE RAIL     | 5524007.463 | 648159.930 |
| 14                                | POINT OF DERAIL | 5524237.497 | 647739.388 |
| 15                                | POINT OF DERAIL | 5524028.230 | 648113.925 |

| CIRCULAR CURVE DATA |          |          |          |          |
|---------------------|----------|----------|----------|----------|
| Curve No.           | 100      | 101      | 102      | 103      |
| R                   | 360.279  | 582.198  | 582.198  | 582.198  |
| Δ                   | 2'39"17" | 2'11"37" | 1'50"55" | 6'36"22" |
| T                   | 8.349    | 11.147   | 9.392    | 33.600   |
| E                   | 0.097    | 0.107    | 0.076    | 0.969    |
| Lc                  | 16.692   | 22.290   | 18.783   | 67.126   |
| Dc                  | 4'50"    | 3'00"    | 3'00"    | 3'00"    |



2 PLAN - MAINLINE, SIDING & CROSSOVER RAIL

**BENCHMARK NOTES:**

DRAWING COORDINATES ARE UTM NAD83 - SCALE FACTOR 0.99983

| B.M. No. | NORTHING    | EASTING    | ELEVATION |
|----------|-------------|------------|-----------|
| PILE 136 | 5523873.734 | 647764.406 | 236.242   |
| PILE 133 | 5523256.606 | 647782.387 | 236.056   |

NOTE: PILE No. 136 MAY BE REVISED PRIOR TO CONSTRUCTION. CONTRACT ADMINISTRATOR TO PROVIDE NEW ELEVATION AND COORDINATES.

REFERENCE NOTES:

- A. ADD 200.00 TO DESIGN GRADES OBTAIN GEODETIC DATUM
- B. ALL EXISTING UNDERGROUND UTILITIES SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
- C. ALL SITE SURFACE WORKS SHALL BE IN ACCORDANCE WITH THE C.O.W. CONSTRUCTION SPECIFICATIONS

**INFORMATION ONLY**

| 150 mm W.M. | WATERMAIN           | 150 mm W.M. | HYDRO             | EXISTING | LEGEND - PLAN | PROPOSED | EXISTING | LEGEND - PLAN | PROPOSED |
|-------------|---------------------|-------------|-------------------|----------|---------------|----------|----------|---------------|----------|
| ○           | HYDRANT             | +           | M.T.S.            | ---      | ---           | ---      | ---      | ---           | ---      |
| ◇           | VALVE               | +           | CONCRETE          | ---      | ---           | ---      | ---      | ---           | ---      |
| □           | LAND DRAINAGE SEWER | ○           | ASPHALT           | ---      | ---           | ---      | ---      | ---           | ---      |
| ○           | WASTEWATER SEWER    | ○           | PROPERTY LINE     | ---      | ---           | ---      | ---      | ---           | ---      |
| ○           | MANHOLE             | ○           | SURVEY BAR        | ---      | ---           | ---      | ---      | ---           | ---      |
| □           | CATCH BASIN         | ■           | ELEVATION         | 232.750  | ○ 2.750       | ---      | ---      | ---           | ---      |
| ▽           | CURB INLET          | ▽           | TREE              | ---      | ---           | ---      | ---      | ---           | ---      |
| +           | JUNCTIONS           | +           | ANODE             | ---      | ---           | ---      | ---      | ---           | ---      |
| —           | CULVERT             | —           | CONCRETE SIDEWALK | ---      | ---           | ---      | ---      | ---           | ---      |
| —           | GAS                 | —           | FENCE             | ---      | ---           | ---      | ---      | ---           | ---      |
| ---         | EXISTING            | ---         | ---               | ---      | ---           | ---      | ---      | ---           | ---      |

**CH2MHILL**  
Frederickson Cooper ARCHITECTS

**EarthTech**  
A Tyco International Ltd. Company

DESIGNED BY: BSK  
CHECKED BY: JC  
DRAWN BY: BSK  
APPROVED BY: AHL

SCALE: 1:500  
RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI

DATE: 2007/01/31  
DATE: 2007/01/31

ENGINEER'S SEAL: ORIGINAL SIGNED BY: 2007/11/09  
CONSULTANT DRAWING NO.: WS-C0002

**APEGM**  
Certificate of Authorization  
Earth Tech Canada Inc.  
No. 730

B.M. ELEV.:

| NO. | REVISIONS               | DATE     | BY   |
|-----|-------------------------|----------|------|
| 02  | ISSUED FOR CONSTRUCTION | 07-05-25 | PAAP |
| 01  | 792-2006 ADDENDUM 3     | 07-03-26 | JC   |
| 00  | ISSUED FOR TENDER       | 07-01-31 | JC   |

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

WATER TREATMENT PLANT  
BULK CHEMICAL BUILDING  
SODIUM HYPOCHLORITE AND CHEMICAL STORAGE BUILDINGS

CITY FILE NUMBER: \_\_\_\_\_  
SHEET OF: \_\_\_\_\_  
CITY DRAWING NUMBER: 1-0601S-A-C0002-001-02D

CIVIL RAILWAY CONSTRUCTION HORIZONTAL GEOMETRY