GENERAL CONSTRUCTION NOTES:

1. ALL EXCAVATION WITHIN OR ADJACENT TO THE STREAM BED SHALL BE UNDERTAKEN IN DRY CONDITIONS. THE CONTRACTOR SHALL INSTALL SANDBAGS, COFFERDAMS, AND BYPASS PIPING AS NECESSARY TO SAFELY ROUTE THE STREAM FLOW AROUND THE EXCAVATION AREA UNTIL CONSTRUCTION IS COMPLETE. THIS WORK ITEM SHALL BE PAID FOR AS A PART OF THE LUMP SUM BID ITEM FOR EROSION CONTROL.

2. DEBRIS AND DEADFALL REMOVAL SHALL NOT BE INTERPRETED TO MEAN GRUBBING, BUT MAY INCLUDE REMOVAL OF LIVE TIMBER BY CUTTING AND LEAVING STUMP INTACT. LIVE TIMBER CAN BE CUT AT BREAK OR NO CLOSER THAN 2-FEET TO THE GROUND. DEADFALL IS TO BE CONSIDERED ONLY FLOATABLE DEBRIS. DEADFALL IS TO REMOVED FROM PROJECT LIMITS.

3. COMMON EXCAVATION SHALL INCLUDE TOPSOIL STRIPPING AND STOCKPILING, AND SUBSOIL EXCAVATION AND STOCKPILING. IT IS ANTICIPATED THAT THE EXCAVATED SUBSOIL WILL BE SUITABLE FOR REUSE AS BACKFILL FOR V.R.S.S. AND IN OTHER AREAS AS NECESSARY. IT IS ANTICIPATED THAT IMPORTING TOPSOIL OR GENERAL FILL WILL NOT BE NECESSARY.

4. ITEMS WHERE A METHOD OF PAYMENT IS NOT NOTED SHALL BE INCIDENTAL TO CONSTRUCTION.

INVASIVE SPECIES CONTROL MEASURES:

PRIOR TO ENTERING THE PROJECT SITE, THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND GEAR AND REMOVE AQUATIC PLANTS, ANIMALS, AND MUD FROM ALL ITEMS. EQUIPMENT SHALL BE DEFIND AS ALL BOATS, MOTORS, TRACKED VEHICLES, AND HEAVY EQUIPMENT, BARGES, HOSES, PUMPS, SHEET PLIING, SILT CURTAINS OR TURBIDITY BARRIERS, WADERS, AND ALL OTHER EQUIPMENT WHICH MAY COME INTO CONTACT WITH SURFACE WATERS DURING CONSTRUCTION. THE CONTRACTOR SHALL SCRUB ALL EQUIPMENT AND GEAR WITH A STIFF-BRISTLED BRUSH WHEN FEASIBLE. THE CONTRACTOR SHALL MAINTAIN A MANIFEST DOCUMENTING THE ITEM, DATE, LOCATION AND DISINFECTION METHOD USED TO PERFORM DISINFECTION.
### TABLE 1: IN-STREAM STRUCTURE CONTROL POINTS

<table>
<thead>
<tr>
<th>Structure</th>
<th>First Control Point X1</th>
<th>Second Control Point X2</th>
<th>Third Control Point X3</th>
<th>Fourth Control Point X4</th>
<th>Bedding Material Thickness (in)</th>
<th>Filter Material Thickness (in)</th>
<th>Pool Bottom</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross Vanes - See Detail 1 on D-04</td>
<td>7 + 10</td>
<td>1121.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CLASS II 18 6</td>
</tr>
<tr>
<td>1-Hook Vane Groups - See Detail 2 on D-04</td>
<td>1</td>
<td>7 + 60</td>
<td>1121.20</td>
<td>8 + 00</td>
<td>1120.65</td>
<td>9 + 20</td>
<td>1120.10</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>9 + 00</td>
<td>1119.65</td>
<td>9 + 10</td>
<td>1119.10</td>
<td>9 + 20</td>
<td>1118.60</td>
<td>-</td>
</tr>
<tr>
<td>Toll Wood - See D-02</td>
<td>1</td>
<td>7 + 16</td>
<td>1223.47</td>
<td>7 + 16</td>
<td>1221.20</td>
<td>7 + 75</td>
<td>1221.61</td>
<td>7 + 75</td>
</tr>
<tr>
<td>2</td>
<td>8 + 25</td>
<td>1221.88</td>
<td>8 + 25</td>
<td>1221.61</td>
<td>8 + 25</td>
<td>1221.61</td>
<td>8 + 25</td>
<td>1221.10</td>
</tr>
</tbody>
</table>

### ISOMETRIC: LAY PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.) TYPE A

**Section: Lay Plant Planting Layout**

**Isometric: Lay Plant Vegetated Reinforced Soil Slope (V.R.S.S.) Type A**

**Issued For Bid:** 2/16/2016

**City of Duluth**

**Chester Creek Bank Stabilization**

**Reach 582X Structure Table, Planting Layout and VRS Details**

**Duluth, Minnesota**