CITY OF DULUTH
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION

CONSTRUCTION PLANS FOR:

43RD AVENUE EAST CREEK OUTFALL BELOW GLADSTONE STREET

FLOOD SITE NO. 338

CITY PROJECT NO. 1198

INDEX

SHEET NO. DESCRIPTION
1 TITLE SHEET
2 STATEMENT OF ESTIMATED QUANTITIES & DETAIL DRAWINGS
3 PLAN & PROFILE

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LEGALLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

TOM JANSSEN
PROJECT ENGINEER

CITY OF DULUTH PROJECT NO. 1198

DRAWN BY: JAM SHEET NO. 1 OF 3

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL 0. THIS QUALITY LEVEL WAS DETERMINED IN ACCORDANCE WITH THE GUIDELINES OF C/O AGE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPOSITION OF EXISTING SUBSURFACE UTILITY DATA".

WARNING:
LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR. CALL BEFORE DIGGING. GOMPER STATE ONE CALL 1-800-252-1166 REQUIRED BY LAW.
### STATEMENT OF ESTIMATED QUANTITIES - FOR REFERENCE ONLY

<table>
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<tr>
<th>NOTES</th>
<th>ITEM NUM</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>EST. QUANTITY</th>
<th>FINAL QUANTITY</th>
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### NOTES

1. Bypass base flows and peak flows of 43rd Ave E Creek until channel is stabilized.
2. Item may be poured in place or precast. Apron shall be attached to foot with rust resistant anchors, incidental.
3. Pipe ties shall conform to MnDOT standard plate 3145P.
4. Common borrow shall be compactable clay type material.

**Diagram:**
- 4" TOPSOIL, SEED, & CATEGORY 4 EROSION CONTROL BLANKET
- EXISTING GROUND
- COMPACTION
- 6" COMPACTED GRANULAR CUSHION COURSE TO PROTECT GEO-TEXTILE FABRIC
- CLASS V RIP RAP QUIRKY RUN
- GEO-TEXTILE FABRIC, TYPE VI
- 6" COMPACTED GRANULAR CUSHION COURSE TO PROTECT GEO-TEXTILE FABRIC

**Certified By:**
- **Name:** Tom Johnson
- **Reg. No.:** 46744
- **Date:** 07/26/2013

**Drawing By:**
- **Name:** JAM
- **Date:** 07/26/2013

**Client:**
- **City of Duluth**
- **City Project No.:** 1188
- **State Aid Project No.:**
- **Sheet No.:** 2 of 3