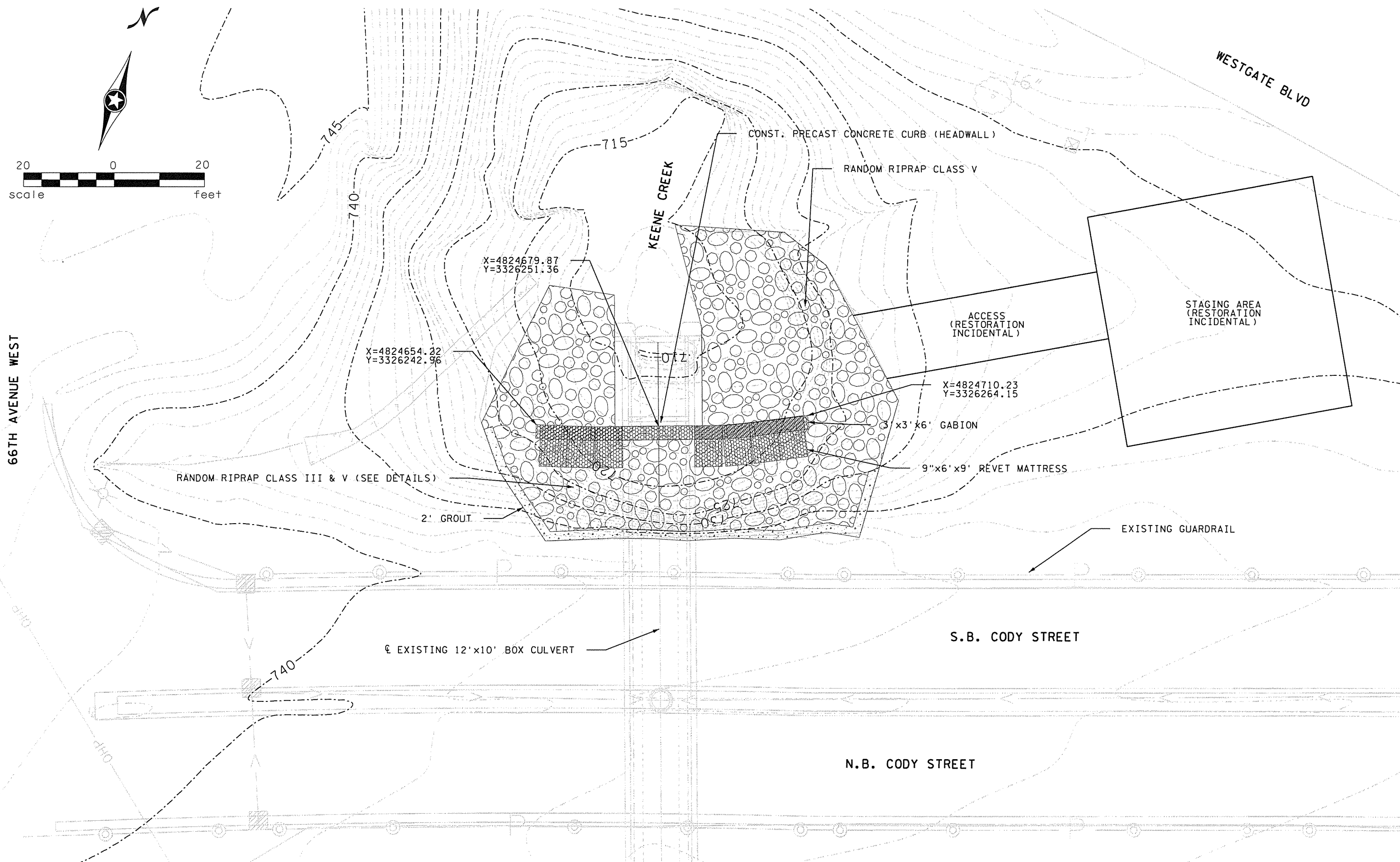


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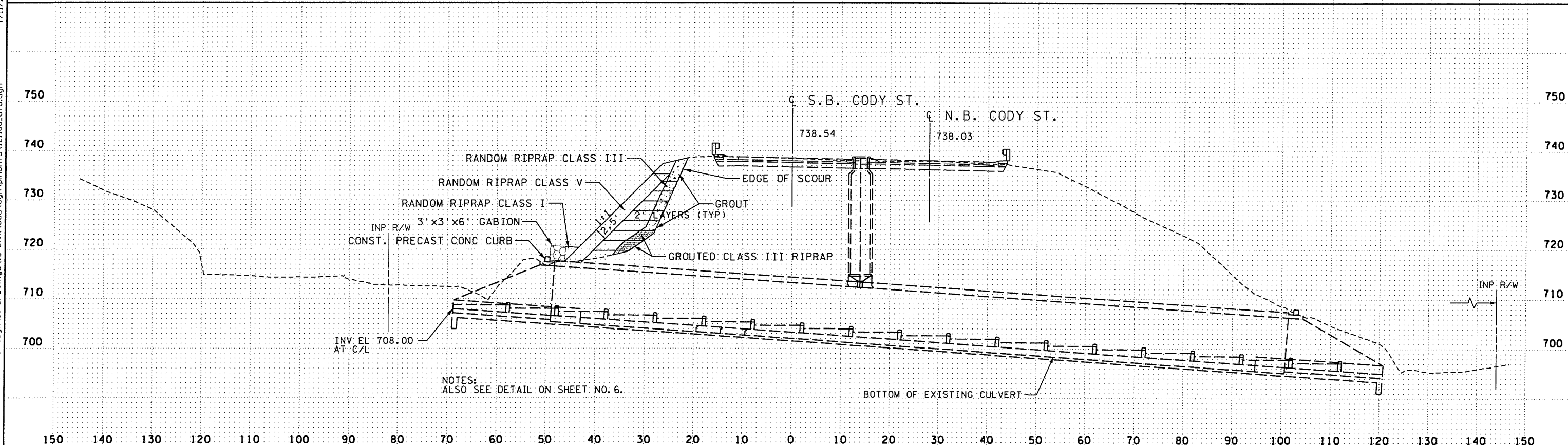
(P) = PLAN QUANTITY

- ① ANY DISTURBED AREAS SHALL BE RESTORED WITH 4" TOPSOIL, SEED (TYPE 360) @ 70 LBS/ACRE, FERTILIZER (TYPE 22-0-10, 80% W.I.N., 0% C1) @ 350 LBS/ACRE, AND EROSION CONTROL BLANKET CATEGORY 3. (INCIDENTAL).
- ② INCLUDES REMOVING ANY EXISTING DOWELS, CLEANING EXISTING 2" DIA. HOLES, ALL REINFORCEMENT AND STRUCTURAL CONCRETE (3Y46) REQUIRED. SEE PLAN DETAILS.
- ③ ANY REQUIRED FILTER MATERIAL IS INCIDENTAL.
- ④ TRIM EXISTING FABRIC LAYERS TO 12" FROM EXPOSED FACE. (INCIDENTAL).
- ⑤ THE RIPRAP SHALL BE PLACED IN LAYERS NO GREATER THAN THAT REQUIRED TO CONSTRUCT THE GROUT LAYER AT THE AVERAGE THICKNESS SHOWN IN THE DETAIL IN THE PLAN.
- ⑥ PAY ITEM IS FOR CUTTING OF DAMAGED REBAR FROM THE WEIR STRUCTURES WITHIN THE EXISTING 12'x10' BOX CULVERT.
- ⑦ TRAFFIC CONTROL SHALL CONSIST OF MAINTAINING THE INPLACE DETOURS AND LANE CLOSURES.

DESIGN TEAM					I hereby certify this plan sheet was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.		PHONE: 218.279.3000 418 W. SUPERIOR ST. SUITE 200 OULUTH, MN 55805	CITY OF DULUTH CODY STREET SLOPE REPAIR S.P. 118-188-001 & S.P. 118-188-002 CITY PROJECT #1138 CITY FLOOD LOCATION NO. 420	ESTIMATED QUANTITIES	FILE NO.	DULUT121186 2 6
DRAWN BY:					Certified By: <u>Scott Wegman</u> Lic. No. _____						
DESIGNER:					Licensed Professional Engineer						
CHECKED BY:	NO.	BY	DATE	REVISIONS	Printed Name: <u>Scott Wegman</u> Date: 7/11/2012						



DESIGN TEAM					I hereby certify this plan sheet was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. <u>25602</u> Certified by: <u>[Signature]</u> Lic. No. <u>25602</u> Licensed Professional Engineer Printed Name: <u>[Signature]</u> Date: 7/11/2012	 PHONE: 218.279.3000 418 W. SUPERIOR ST. SUITE 200 DULUTH, MN 55805	CITY OF DULUTH CODY STREET SLOPE REPAIR S.P. 118-188-001 & S.P. 118-188-002 CITY PROJECT #1138 CITY FLOOD LOCATION NO. 420	CONSTRUCTION PLAN	FILE NO.	3
DRAWN BY: _____									DULUTH121186	CP1 OF CP1
DESIGNER: _____										
CHECKED BY: _____	NO.	BY	DATE	REVISIONS						

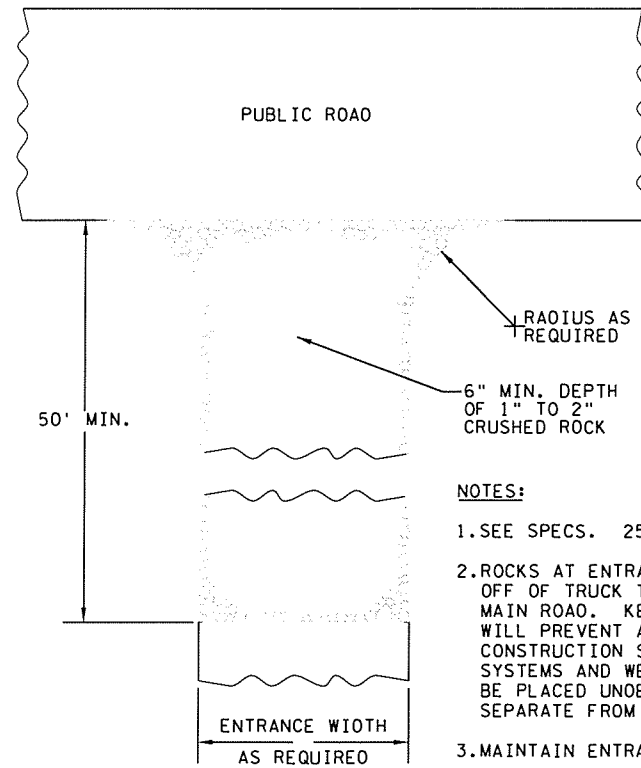


DESIGN TEAM					I hereby certify this plan sheet was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.	 PHONE: 218.279.3000 418 W. SUPERIOR ST. SUITE 200 DULUTH, MN 55805	CITY OF DULUTH CODY STREET SLOPE REPAIR S.P. 118-188-001 & S.P. 118-188-002 CITY PROJECT #1138 CITY FLOOD LOCATION NO. 420	CONSTRUCTION DETAILS	FILE NO.	4 6	
DRAWN BY: <u>PRM</u>					Certified By: <u>[Signature]</u> Lic. No. <u>25602</u>				DULUT121186		DT1
DESIGNER: <u>JCK</u>					Licensed Professional Engineer				Date: 7/11/2012		OF DT3
CHECKED BY: <u>SW</u>	NO.	BY	DATE	REVISIONS							

10:55:47 AM

7/11/2012

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ROCK CONSTRUCTION ENTRANCE

NOTES:

SEE SPECS. 2573, 3149 & 3886.
① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

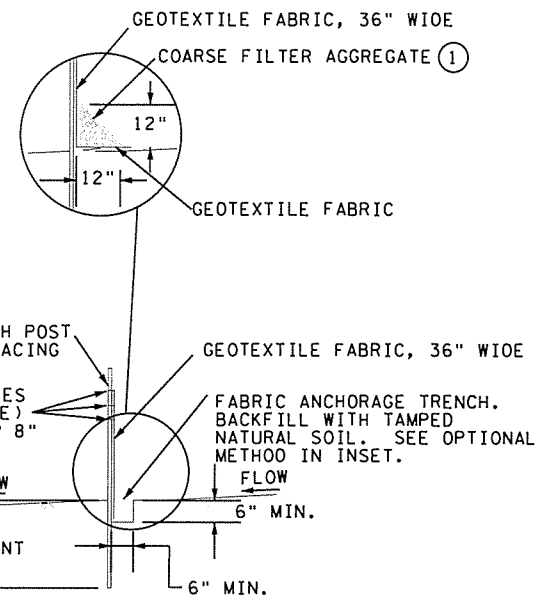
5 FT. MIN. LENGTH POST AT 6 FT. MAX. SPACING

PLASTIC ZIP TIES (50 LB. TENSILE) LOCATED IN TOP 8"

2'-0" MIN. POST EMBEUREMENT

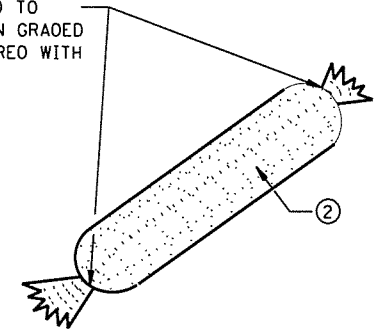
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.

OPTIONAL METHOD FOR SILT FENCE, HEAVY DUTY



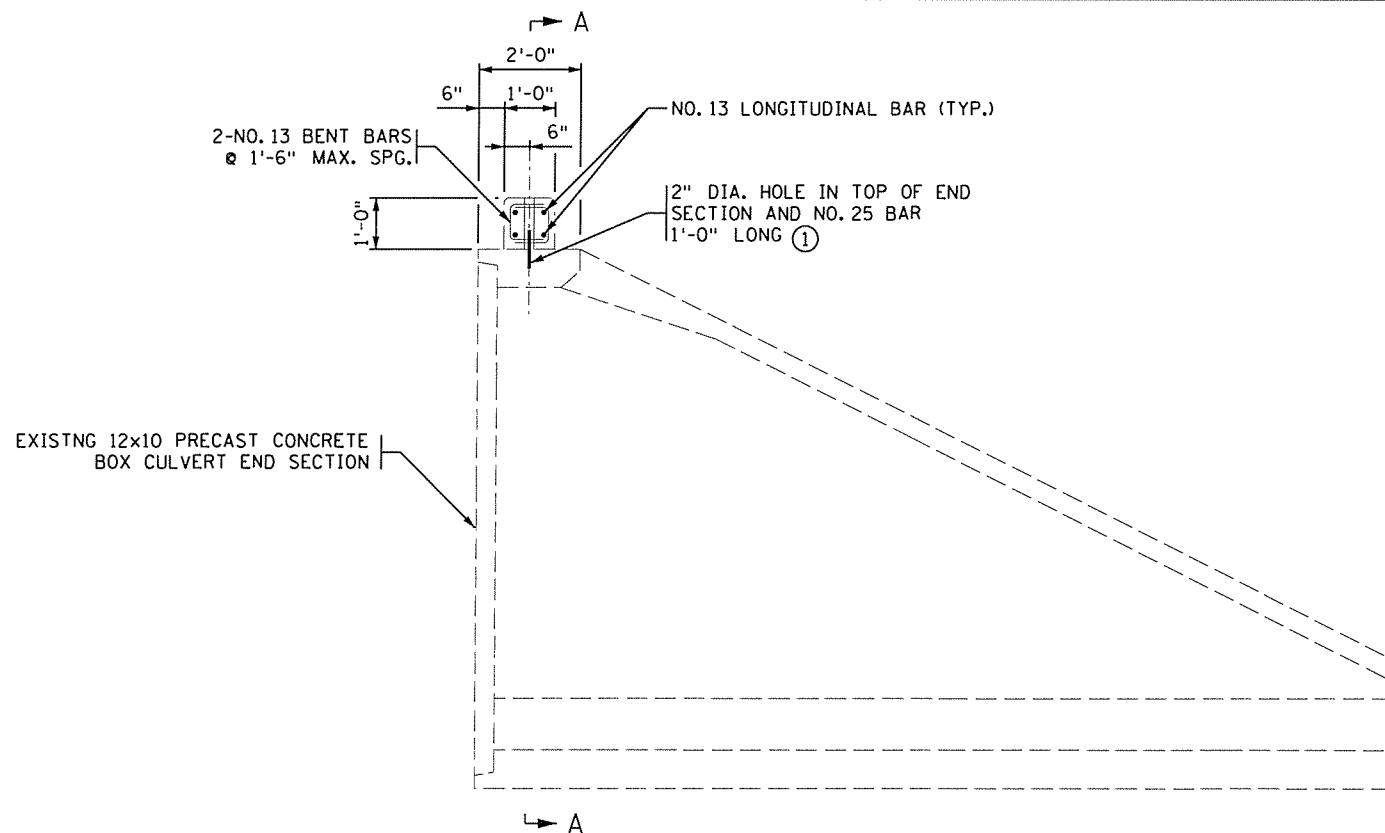
SILT FENCE, HEAVY DUTY (HAND INSTALLED)

ENOS SECURELY CLOSED TO PREVENT LOSS OF OPEN GRADED AGGREGATE FILL. SECURED WITH 50 PSI. ZIP TIE.

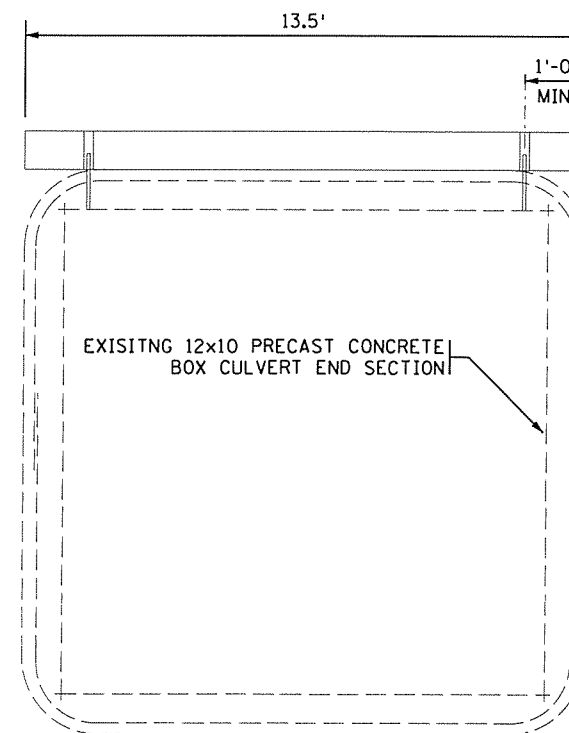


② GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

FILTER TYPE ROCK LOG



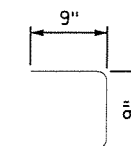
SIDE ELEVATION



SECTION A-A

CONSTRUCTION NOTES

① FILL HOLE WITH GROUT. GROUT SHALL CONSIST OF 1 PART CEMENT AND 2 PARTS SAND. USE TYPE 1A AIR ENTRAINED PORTLAND CEMENT. GROUT MIX SHALL HAVE A MAXIMUM SLUMP OF 4".



NO. 13 BENT BAR

DESIGN TEAM			
DRAWN BY:	PRM		
DESIGNER:	JCK		
CHECKED BY:	SW		
NO.	BY	DATE	REVISIONS

I hereby certify this plan sheet was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Certified By: *[Signature]* Lic. No. 25662
Printed Name: Scott Weyand Date: 7/11/2012

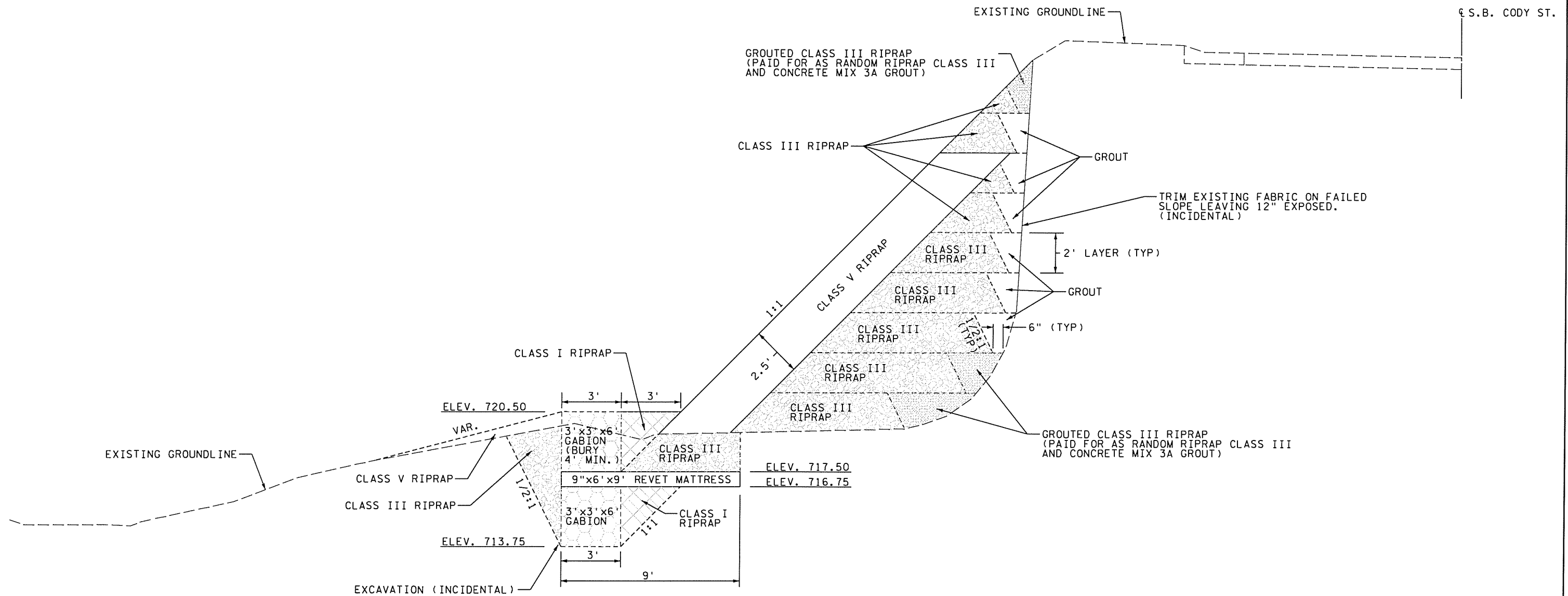


PHONE: 218.279.3000
418 W. SUPERIOR ST.
SUITE 200
DULUTH, MN 55805

CITY OF DULUTH
CODY STREET SLOPE REPAIR
S.P. 118-188-001 & S.P. 118-188-002
CITY PROJECT #1138
CITY FLOOD LOCATION NO. 420

CONSTRUCTION DETAILS

FILE NO. 5
DULUTH 121186
DT2
OF DT3 6

**CONSTRUCTION DETAIL**

DESIGN TEAM			
DRAWN BY:	PRM		
DESIGNER:	JCK		
CHECKED BY:	SW		
NO.	BY	DATE	REVISIONS

I hereby certify this plan sheet was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Certified By: *[Signature]* Lic. No. 25602

Printed Name: Scott Weigandt Date: 7/11/2012



CITY OF DULUTH
CODY STREET SLOPE REPAIR
S.P. 118-188-001 & S.P. 118-188-002
CITY PROJECT #1138
CITY FLOOD LOCATION NO. 420

CONSTRUCTION DETAILS

FILE NO.
DULUT121186
DT3
OF DT3

6

6