MINNESOTA DEPARTMENT OF TRANSPORTATION
MINNESOTA DEPARTMENT OF NATURAL RESOURCES

MINN. PROJ. NO. HPPH H166(001)
HPPH H186(001)

CONSTRUCTION PLAN FOR PAUL BUNYAN TRAIL CONSTRUCTION
GRADING, AGGREGATE BASE AND BITUMINOUS

LOCATED ON ABANDONED CHICAGO NORTHWESTERN RR R/W FROM CITY OF BEMIDJI TO CITY OF GUTHRIE

LEGAL DESCRIPTION FROM SEC. 22. T 146 N. R 33 W TO SEC. 12 T 144 N. R 33 W

STATE PROJ. NO. SP 92-090-35
MINN. PROJ. NO. HPPH H166(001)
HPPH H186(001)

GROSS LENGTH	60,884	FEET	11.531	MILES	STATION 0+00
EXISTING BRIDGE LENGTH	270	FEET	.005	MILES	
EXCEPTIONS LENGTH	1,129	FEET	.213	MILES	
NET LENGTH	59,485	FEET	11.266	MILES	STATION 608+84.000

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

DESCRIPTION	SHT #
TITLE & INDEX SHEET	1
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THIS PLAN CONTAINS 68 SHEETS.

PLAN SYMBOLS

COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING R/W
NEW R/W
TEMP EASE
RAILROAD R/W
UNSURFACED RD. OR SHLD.
EDGE OF LAKE
SWAMP BOUNDARY
MISCELLANEOUS BOUNDARY
CORPORATE OR CITY LIMITS
VACATED PLATTED PROPERTY
RECREATIONAL TRAIL
ALIGNMENT STATIONS (110, 112)
ALIGNMENT POINTS
RIVER OR CREEK
DRAINAGE DITCH (SIZE)
BRIDGE
RAILROAD (SINGLE TRACK)
RR CROSSING PAVEMENT MARKING
RR CROSSING GATE
RR CROSSBUCK SIGN
RR CROSSBUCK SIGN W/LIGHTS
BARBED WIRE FENCE
CHAIN LINK FENCE (XC)
WOVEN WIRE, COMBINATION WOVEN AND BARB (XW)
WOOD FENCE
BILLBOARD
RETAINING WALL
GUARDRAIL (CABLE)
GUARDRAIL (PLATE BEAM)
DRAIN TILE
CULVERT
CULVERT WITH APRONS
WOODS OR BRUSH, NURSERY
DECIDUOUS TREES
CONIFER (EVERGREEN) TREES
HEDGE
BUSH OR SHRUB
STUMP
SWAMP OR MARSH
MONUMENT (CI,CT,ACP,BCP,...)
CONCRETE OR STONE MONUMENT
IRON PIPE
IRON PIN OR REBAR
IRON PIN WITH BRASS DISK
NAIL, PK NAIL, SPIKE, SFP, T-BAR, ...
VERTICAL CONTROL (B.M.)
HORIZONTAL CONTROL
POWER POLE
LIGHT POLE
LIGHT AND TELEPHONE POLE
LIGHT, TELEPHONE AND POWER POLE
GUY POLE (GP)
POLE ANCHOR
TELEPHONE POLE
TELEPHONE AND POWER POLE
UNDERGROUND CABLE PEDESTAL (PED)
TELEPHONE MANHOLE (VAULT) (MH)
ELECTRIC CABLE IN CONDUIT (P)
TELEPHONE CABLE IN CONDUIT (T)
BURIED ELECTRIC CABLE (P-BUR)
BURIED TELEPHONE CABLE (T-BUR)
GAS LINE (G)
WATER LINE (W)
VALVE
FIRE HYDRANT
WATER MANHOLE
WELL (WELL)
LAWN SPRINKLER HEAD
MANHOLE (MH)
CATCH BASIN (CB)
SEPTIC TANK (SEPTIC TANK)
FORCE MAIN LIFT STA. (LIFT)
SEWER LINE
PERMANENT BARRICADE
TRAFFIC SIGNAL LIGHT
HAND HOLE
ENTRANCE
BUILDING (NUMBER 1-S-F)
SATELLITE DISH
STEEL TOWER (TOWER)
FLAG POLE (F.P.)

N

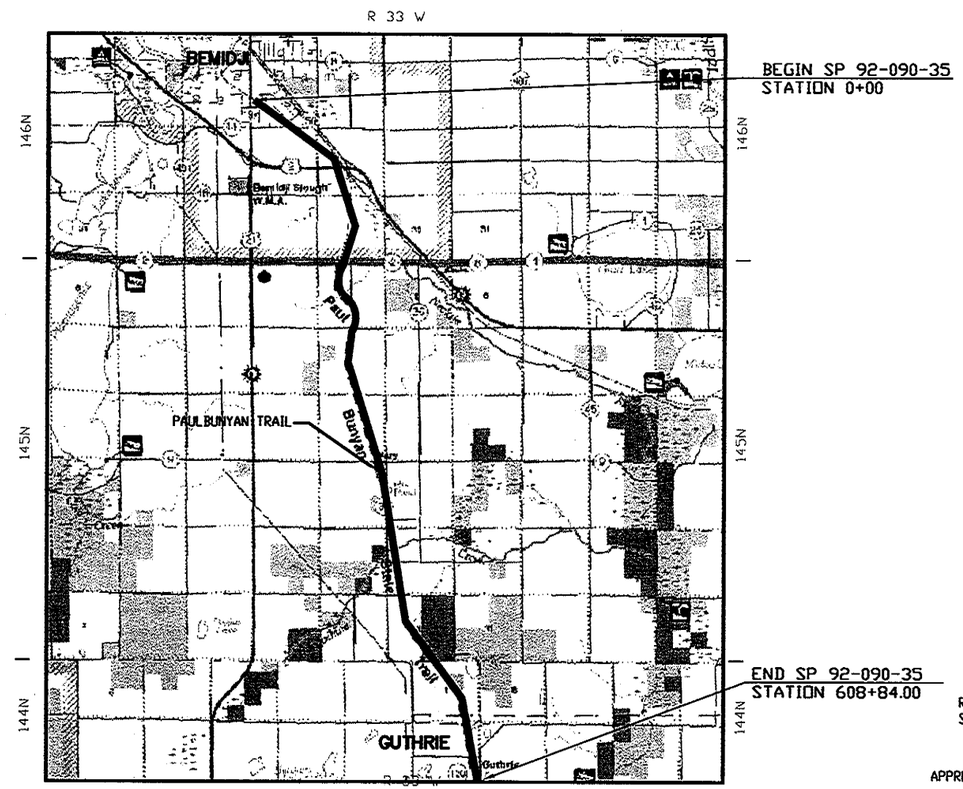
COUNTIES: BELTRAMI, HUBBARD
DISTRICT: BEMIDJI (2)
PROJECT LOCATION

0 10' 20'
CROSS SECTION SCALE

0 100' 200'
PLAN SCALE

DESIGN SPEED 20 MPH
BASED ON STOPPING SIGHT DISTANCE
HEIGHT OF EYE 4.5 FT HEIGHT OF OBJECT 0 FT

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY



THE PLAN INDICATES THE GENERAL LOCATION OF KNOWN UTILITIES ON THE PROJECT. ALL UTILITY LOCATIONS ARE APPROXIMATE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS AND ELEVATIONS WITH THE UTILITY COMPANY

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.

CALL BEFORE YOU DIG
GOPHER STATE ONE CALL
TWIN CITY AREA 454-0002
MN, WI, ND, SD AREA 1-800-252-1166

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

DATE June 4, '08 REG. NO. 24345 ENGR. J. Filardo, PE
JOHN FILARDO

DESIGN SQUAD J. FILARDO, J. ERICKSON, D. SETHER,

RECOMMENDED FOR APPROVAL 6-5 2008
MN DNR MANAGEMENT RESOURCES SUPPORT BUREAU

RECOMMENDED FOR APPROVAL 6/5 2008
MN DNR DIVISION OF TRAILS & WATERWAYS

REVIEWED FOR COMPLIANCE WITH STATE AID RULE/POLICY 6/4 2008
DISTRICT STATE AID ENGINEER

APPROVED FOR FEDERAL AID FUNDING 6/20 2008
STATE AID ENGINEER

BUREAU OF MANAGEMENT RESOURCES		MINNESOTA DEPARTMENT OF NATURAL RESOURCES
Survey R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO	DIVISION OF TRAILS & WATERWAYS
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON, D. SETHER	TITLE & INDEX
Checked J. FILARDO	Checked 3/2007 J. FILARDO	TRAIL CONSTRUCTION PAUL BUNYAN STATE TRAIL
Horz Datum NAD 83 HUBBARD CNTY	Vert Datum NAVD 88	BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI
Latest Revision 5/29/08	Revised By D. SETHER	Sec. VARIES T. 144-146 N. R. 33 W.
Ref. Dwgs.		Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 1

STATE PROJ. NO. SP92-090-35 SHEET NO. 1 OF 68 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

	ITEM NO.	ITEM	UNIT	ESTIMATED	FINAL
	2021.501	MOBILIZATION	LUMP SUM	1	
	2101.501	CLEARING	ACRE	0.1	
	2104.501	REMOVE PIPE CULVERTS	LF.	72	
	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF.	162	
	2105.501	COMMON EXCAVATION (P)	CU YD	11750	
	2105.521	GRANULAR BORROW (CV)	CU YD	3250	
	2105.525	TOPSOIL BORROW (CV)	CU YD	6090	
	2105.604	GEOTEXTILE FABRIC TYPE V	SQ YD	2614	
1	2112.604	SUBGRADE PREPARATION	SQ YD	92469	
	2211.503	AGGREGATE BASE CLASS 5 (CV)	CU YD	15278	
	2221.503	AGGREGATE SHOULDERING (CV) CLASS 5	CU YD	1785	
	2360.503	TYPE SP 12 WEAR CRS MIX (2,C) 2.5" THICK	SQ YD	66243	
	2360.503	TYPE SP 12 WEAR CRS MIX (2,C) 1.5" THICK	SQ YD	989	
	2501.511	15" CS PIPE CULVERT	LF	60	
	2501.511	18" CS PIPE CULVERT	LF	48	
	2501.511	24" CS PIPE CULVERT	LF	71	
	2501.515	15" CS PIPE APRON	EACH	6	
	2501.515	18" CS PIPE APRON	EACH	4	
	2501.515	24" CS PIPE APRON	EACH	6	
	2511.501	RANDOM RIPRAP CLASS III	CU YD	118	
2	2575.603	ROOT BARRIER	LF	2000	
	2563.601	TRAFFIC CONTROL	LS	1	
	2573.502	SILT FENCE, TYPE MACHINE SLICED	LF	5050	
	2573.540	FILTER LOG TYPE STRAW BIOROLL	LF	390	
	2575.501	SEEDING (P)	ACRE	14.4	
	2575.519	DISK ANCHORING (P)	ACRE	14.4	
	2575.555	TURF ESTABLISHMENT	LS	1	
	2575.570	RAPID STABILIZATION METHOD 1 (P)	ACRE	5.25	

NOTES

1 SUB GRADE PREPARATION SHALL INCULDE SCARIFYING THE SUBGRADE 6" IN DEPTH AND QUALITY COMPACTION.

2 SEE SPECIAL PROVISIONS

The following standard plates approved by the Federal Highway Administration shall apply on this project.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
3040F	CORRUGATED METAL PIPE CULVERT
3123J	METAL APRON FOR C.S. PIPE
3124B	METAL APRON CONNECTION
3134C	RIPRAP AT CMP OUTLETS
3221C	CORRUGATED STEEL PIPE COUPLING BAND
8000I	STANDARD BARRICADES

TABULATION INDEX

	SHEET	DESCRIPTION
A	3	CLEARING AND GRUBBING
B	3	GEOTEXTILE
C	3	PAVEMENT SAWING (FULL DEPTH)
D	4	TURF ESTABLISHMENT
E	4	BITUMINOUS PAVEMENT, SOIL STERILIZATION AND AGGREGATE BASE
F	4	TEMPORARY EROSION CONTROL
G	4	CULVERT SCHEDULE
H	4	TYPICAL SECTION SCHEDULE
I	4	BITUMINOUS PAVEMENT

A - CLEARING AND GRUBBING

STATION TO STATION	LOCATION	CLEARING ACRE	GRUBBING ACRE
138+40 TO 138+70	LT. & RT.	0.02	0.08
PROJECT ITEM TOTAL			0.1

B - GEO-TEXTILE

STATION TO STATION	LOCATION	GEO-TEXTILE FABRIC TYPE V
TRAIL		SQ YD
222+00 TO 223+30	WET AREAS	214
379+20 TO 397+00	WET AREAS	2400
PROJECT TOTALS		2614

C - PAVEMENT SAWING

STATION	LOCATION	INPLACE ITEM	SAWING BIT PAVEMENT (FULL DEPTH)
TRAIL			LIN FT.
84+05		EDGE OF BITUMINOUS TRIAL NEAR BRIDGE	12'
98+08		EDGE OF BITUMINOUS TRIAL NEAR BRIDGE	12'
165+26	EDGE	BELTRAMI C.O. ROAD 2 SHOULDER	46'
165+50	EDGE	BELTRAMI C.O. ROAD 2 SHOULDER	46'
608+84	EDGE	HUBBARD C.O. ROAD 16	46'
PROJECT ITEM TOTAL			162'

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JOHN FILARDO
DATE 6/28/08 LIC. NO. 24345

MANAGEMENT RESOURCES.

Survey R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON D. SETHER
Checked	Checked 3/2007 J. FILARDO
Horz Datum COUNTY	Vert Datum
Latest Revision 5/29/08	Revised By D. SETHER
Ref. Dwgs.	

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF TRAILS & WATERWAYS
ESTIMATED QUANTITIES/STANDARD PLATES
TRAIL CONSTRUCTION
PAUL BUNYAN STATE TRAIL
BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI

Sec.	T. N.	R. 33 W.	
Reg. TO-07-23	File Sheet	File TRA00725.06.00.07	Plan Sheet 3

STATE PROJ. NO. 92-090-35 SHEET NO. 3 OF 68 SHEETS

D - TURF ESTABLISHMENT

STATION TO STATION	LOCATION	SEEDING	SEEDING 250 MIXTURE 70 LBS PER ACRE	MULCH MATERIAL TYPE 1 TWO TONS PER ACRE	DISK ANCHORING	COMMERCIAL FERTILIZER 21-12-24
		ACRE	POUND	TON	ACRE	LBS
0+00 TO 84+13	LT. & RT.	1.8	126	3.6	1.8	540
BRIDGE W.PAVED APPROACH 84+13 TO 98+12	(NO SEED)					
98+12 TO 165+24	LT. & RT.	1.9	133	3.8	1.9	570
165+57 TO 332+00	LT. & RT.	3.2	224	6.4	3.2	960
332+00 TO 608+84	LT. & RT.	7.5	493.5	14.14	7.5	2115
PROJECT ITEM TOTAL		14.4	976.5	27.94	14.4	4185

E - BITUMINOUS PAVEMENT, SOIL STERILIZATION, AGGREGATE BASE AND AGGREGATE SHOULERING

STATION TO STATION	LOCATION	ROOT BARRIER	AGGREGATE BASE (CV) CLASS 5	AGGREGATE SHOULDERING (CV) CLASS 5	TYPE WEARING COURSE MIXTURE (SPWEB340C) 2.5" THICK
		LF.	CU YD	CU YD	SQ YD
0+00 TO 44+50	LT. & RT.		824	435	4944.5
CROSSING CO. RD. 11 44+50 TO 44+83	(NO PAVE)				
44+83 TO 84+13	LT. & RT.		727	384	4366.5
BRIDGE W.PAVED APPROACH 84+13 TO 98+12	(NO PAVE) OR CONSTRUCTION				
98+12 TO 165+24	LT. & RT.		1243	656	7458
CROSSING CO. RD 2 165+24 TO 165+57	(NO PAVE)				
165+57 TO 332+22	LT. & RT.		3086	1728	18516
CROSSING CO. RD 9 332+22 TO 332+46	(NO PAVE)				
332+46 TO 608+84	LT. & RT.	2000	5118	2866	30708
PROJECT ITEM TOTAL			10994	6069	65993

F - TEMPORARY EROSION CONTROL

STATION TO STATION	LOCATION	SILT FENCE, TYPE MACHINE SLICED	BIO ROLLS
		LF.	LF.
139+75	LF. & RT.	50	
140+75	LF. & RT.		30
141+75	LF. & RT.		30
142+75	LF. & RT.		30
147+80	LF. & RT.	50	
154+85	LF. & RT.	50	
155+75	LF. & RT.		30
156+75	LF. & RT.		30
157+75	LF. & RT.		30
158+40	LF. & RT.		30
159+25	LF. & RT.		30
160+25	LF. & RT.		30
161+50	LF. & RT.		30
162+50	LF. & RT		30
163+75	LF. & RT		30
164+75	LF. & RT		30
165+00	LF. & RT	50	
165+75	LF. & RT	50	
223+10	LF. & RT	100	
309+60	LF. & RT	100	
379+00 TO 399+00	LF. & RT	4000	
401+50 TO 404+50	LF. & RT	600	
PROJECT ITEM TOTALS		5050	390

I - BITUMINOUS PAVEMENT

PUB LIC CROSSINGS -QUANTITY -4

STATION TO STATION	LOCATION	TYPE WEARING COURSE MIXTURE (SPWEB340C) 1.5" THICK
		SQ YD
223+44 TO 223+65	LT. & RT.	123
412+70 TO 412+96	LT. & RT.	123
439+47 to 439+64	LT. & RT.	123
581+85 to 582+06	LT. & RT.	123
TOTAL		492

PRIVATE CROSSINGS - QUANTITY 7 (EXACT LOCATIONS TO BE STAKED BY THE ENGINEER)

ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
ENGINEER STAKED	LT. & RT.	71
TOTAL	LT. & RT.	497

G - CULVERT SCHEDULE

STATION	TYPE	PIPE DIAMETER	PIPE LENGTH	PIPE APRON	RIPRAP CLASS III
		INCH	LIN FT	EACH	CU YD
139+75	C.S.P.	24"	24'	2	19.6
147+80	C.S.P.	24"	24'	2	19.6
154+85	C.S.P.	24"	24'	2	19.6
165+00	C.S.P.	18"	24'	2	14
165+75	C.S.P.	18"	24'	2	14
223+10	C.S.P.	15"	20'	2	10.4
309+60	C.S.P.	15"	40'	4	20.8
PROJECT ITEM TOTAL					118

NOTE: GEO-TEXTILE WILL BE INCIDENTAL TO THE RIPRAP.

H - TYPICAL SECTION SCHEDULE

STATION TO STATION	SHEET #	TYPICAL SECTON
0+00 TO 2+00	3	3
2+00 TO 10+66	3	1
10+66 TO 44+50	3	3
CROSSING CO. RD. 11 44+50 TO 44+83	NONE	
44+83 TO 74+00	3	3
74+00 TO 78+50	3	1
78+50 TO 84+13	3	3
BRIDGE W.PAVED APPROACH 84+13 TO 98+12	NONE	
98+12 TO 137+00	3	3
137+00 TO 165+24	3	2
CROSSING CO. RD 2 165+24 TO 165+57	NONE	
165+57 TO 185+00	3	3
185+00 TO 196+00	3	1
196+00 TO 254+00	3	3
254+00 TO 265+00	3	1
265+00 TO 286+00	3	3
286+00 TO 296+00	3	1
296+00 TO 312+00	3	3
312+00 TO 322+00	3	1
322+00 TO 332+22	3	3
CROSSING CO. RD 9 332+22 TO 332+46	NONE	
332+46 TO 399+00	3	3
399+00 TO 408+00	3	1
408+00 TO 459+00	3	3
459+00 TO 466+00	3	1
466+00 TO 492+00	3	3
492+00 TO 496+00	3	1
496+00 TO 562+00	3	3
562+00 TO 566+00	3	1
566+00 TO 608+84	3	3
PROJECT ITEM TOTAL	3	

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JOHN FILARDO
DATE 6/26/08 LIC. NO. 24345

MANAGEMENT RESOURCES

Survey R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON D. SETHER
Checked	Checked 3/2007 J. FILARDO
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Latest Revision 5/29/08	Revised By D. SETHER
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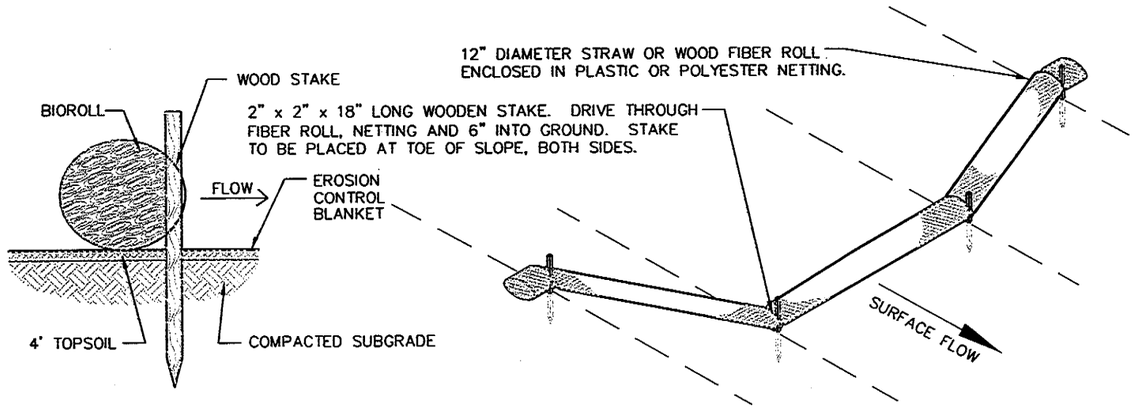
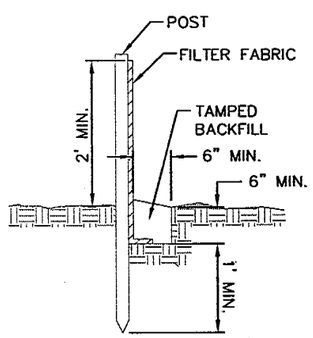
MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF TRAILS & WATERWAYS
ESTIMATED QUANTITIES
TRAIL CONSTRUCTION
PAUL BUNYAN STATE TRAIL
BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI

Sec. T. N. R. 33 W.
Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 4

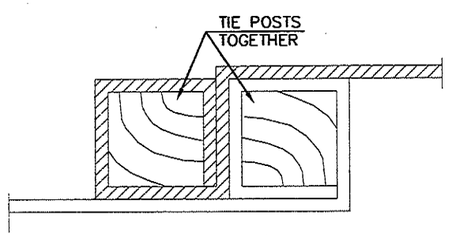
STATE PROJ. NO. 92-090-35 SHEET NO. 4 OF 68 SHEETS



BIOROLL DITCH CHECK



NOTES:
1. MIN. 2"x2" POST TO BE SPACED AT A MAX. OF 5'.
2. FILTER FABRIC TO BE MIRAFI 100 OR EQUAL.
3. POSTS DAMAGED ON DRIVING SHALL BE REPLACED.
4. HAY OR STRAW BALES SHALL NOT BE SUBSTITUTED FOR FILTER FABRIC.



DETAIL FOR JOINING SECTIONS

SILT FENCE

EROSION CONTROL NOTES:

1. Mn/DOT SPEC 2575 EROSION CONTROL SHALL APPLY
2. THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGABLE IN EROSION PREVENTION AND SEDIMENT CONTROL TECHNIQUES WHO WILL OVERSEE THE IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE AND DURING CONSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL ON THIS PROJECT. THE CONTRACTOR SHALL PLACE OR OTHERWISE CONSTRUCT EROSION CONTROL AND SEDIMENT CONTAINMENT DEVICES TO PREVENT THE RUNOFF, TRACKING OR LOSS OF SEDIMENT FROM DISTURBED AREAS OF THE PROJECT SITE. GRADING OPERATIONS SHALL BEGIN WITH CONSTRUCTION OF SILT FENCE AS DIRECTED IN THE PLAN. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE LAND IS OTHERWISE DISTURBED ON THE SITE.
4. THE CONTRACTOR SHALL DEVELOP A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE TEMORARY AND PERMANENT EROSION CONTROL PROCEDURES ARE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE AND THE SITE IS STABILIZED.
5. THE SURFACE OF STRIPPED AREAS WITH A SLOPE OF 2.5:1 OR STEEPER SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN 3 DAYS AFTER THE AREA IS NO LONGER ACTIVELY WORKED. ALL OTHER AREAS WITH SLOPES FLATTER THAN 2.5:1 SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN 7 DAYS.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION PROTECTION OR PERMANENT COVER FOR ALL EXPOSED SOILS WITH A SLOPE OF 2.5:1 WITHIN 3 DAYS AFTER THE AREA IS NO LONGER ACTIVELY WORKED. ALL OTHER AREAS WITH SLOPES FLATTER THAN 2.5:1 SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN 7 DAYS.
7. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION PROTECTION OR PERMANENT COVER NOT LATER THAN NOVEMBER 1ST ON ALL SLOPES 2.5:1 OR STEEPER WITH EXPOSED SOIL AREAS REGARDLESS OF THE STABILIZATION REQUIREMENTS LISTED ABOVE.
8. THE FOLLOWING CONTROLS WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE:
   - PERMANENT VEGETATION WILL BE ESTABLISHED AFTER TOPSOIL IS RE-SPREAD.
   - SILT FENCES WILL PREVENT SEDIMENT DISCHARGING FROM THE SITE
9. THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT AND EROSION CONTROL MEASURES IDENTIFIED ON THIS PLAN UNTIL THE SITE IS STABILIZED. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED AFTER EACH RUN OFF PRODUCING RAIN EVENT. ALL NONFUNCTIONAL DEVICES SHALL BE REPAIRED OR REPLACED WITH NO ADDITIONAL COMPENSATION.
10. THE MAXIMUM DISTURBED SURFACE AREA AT ANY ONE TIME SHALL NOT EXCEED THE CONTRACTOR'S RESOURCES AND ABILITY TO MEET THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
    - THE CONTRACTOR'S INSPECTOR SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
    - THE CONTRACTOR SHALL KEEP A RECORD OF INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION. THESE RECORDS MUST BE RETAINED IN THE STORM WATER POLLUTION PREVENTION PLAN. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
      - DATE AND TIME OF INSPECTIONS;
      - NAME OF PERSON(S) CONDUCTING INSPECTION;
      - FINDINGS OF INSPECTION, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES);
      - DATE AND AMOUNT OF RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS;
      - DOCUMENTATION OF CHANGES MADE TO THE STORM WATER POLLUTION PREVENTION PLAN.

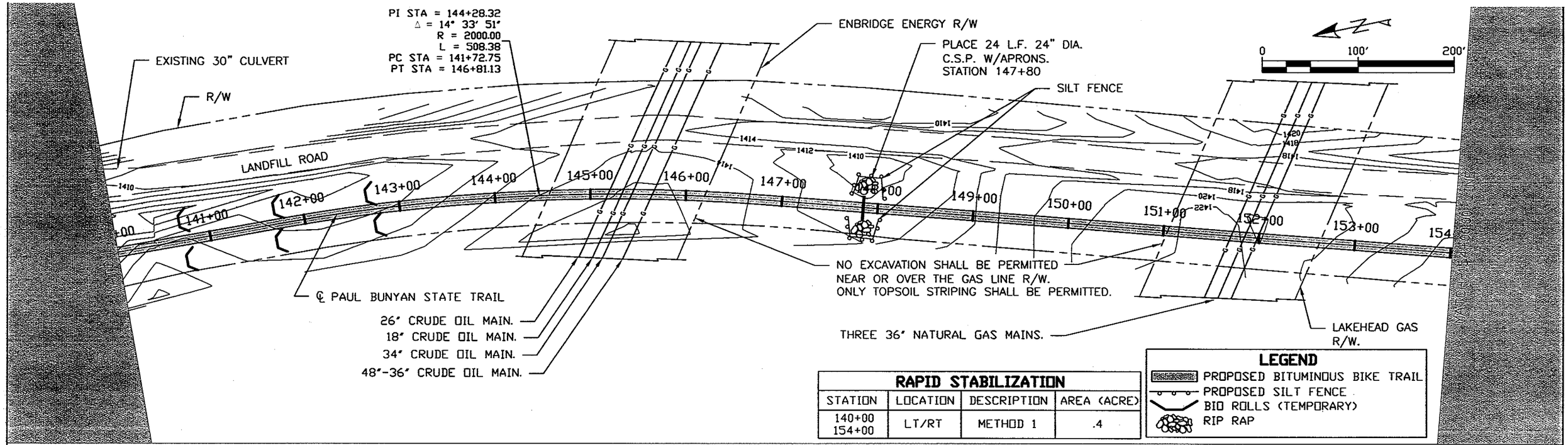
      ALL SILT FENCE SHALL BE CLEANED OF SEDIMENT WHEN THE SEDIMENT REACHES ⅓ THE HEIGHT OF THE SILT FENCE. SILT FENCE SHALL FOLLOW, AS CLOSE AS POSSIBLE, A SINGLE CONTOUR.
    - WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITION, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
11. AFTER STABILIZATION (70% COVER) ALL SILT FENCE WILL BE REMOVED FROM PROJECT.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

JOHN FILARDO
DATE 6/4/08 LIC. NO. 24345

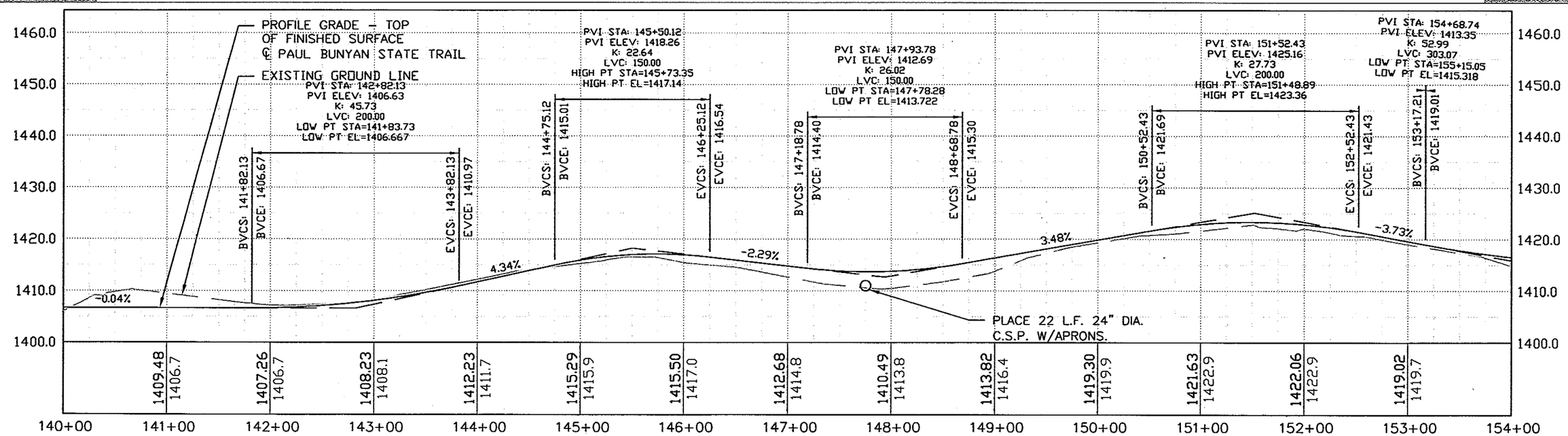
MANAGEMENT RESOURCES		MINNESOTA DEPARTMENT OF NATURAL RESOURCES
Survey: R. AHO D. DRUSCH	Designed 3/2007: J. FILARDO	DIVISION OF TRAILS & WATERWAYS
Drawn: D. SETHER	Drawn 3/2007: J. ERICKSON D. SETHER	EROSION CONTROL
Checked	Checked 3/2007: J. FILARDO	TRAIL CONSTRUCTION
Horz Datum: COUNTY	Vert Datum	PAUL BUNYAN STATE TRAIL
Latest Revision: 5/29/08	Revised By: D. SETHER	BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI
Ref. Dwgs.		Sec. T. N. R. 33 W.
		Req. TO-07-23 / File Sheet / File TRA00725.06.00.07 / Plan Sheet 5

STATE PROJ. NO. 92-090-35 SHEET NO. 5 OF 68 SHEETS



RAPID STABILIZATION

STATION	LOCATION	DESCRIPTION	AREA (ACRE)
140+00 154+00	LT/RT	METHOD 1	.4



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

JOHN FILARDO
DATE 6-4-08 LIC. NO. 24345

BUREAU OF MANAGEMENT RESOURCES

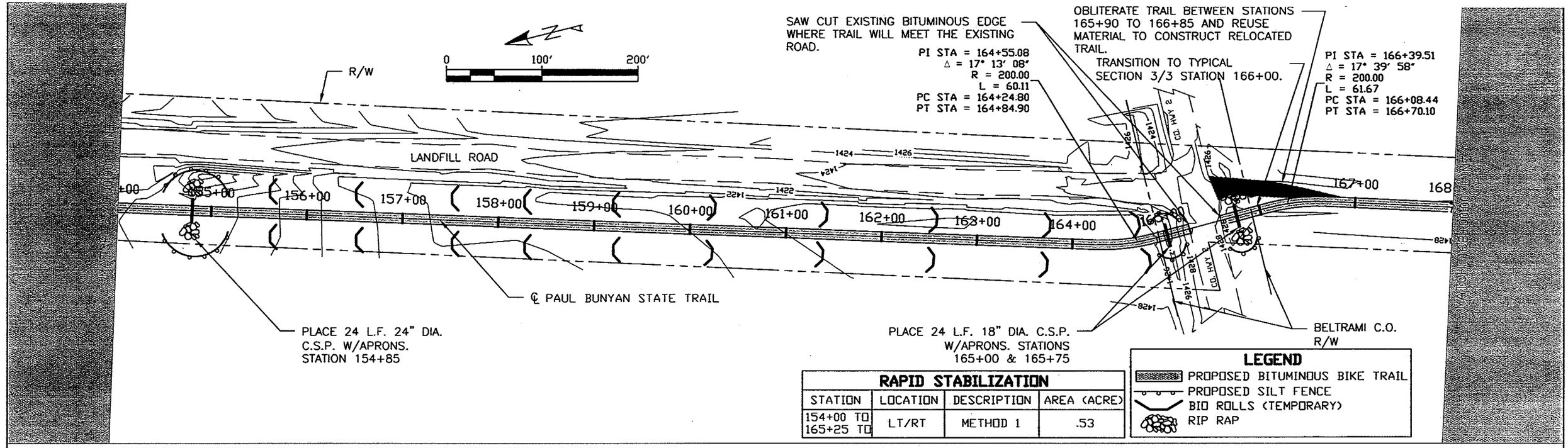
Survey 11/2007 R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON, D. SETHER
Checked J. FILARDO	Checked 3/2007 J. FILARDO
Horz Datum NAD 83 HUBBARD CNTY	Vert Datum NAVD 88
Latest Revision 5/29/08	Revised By D. SETHER
Ref. Dwgs.	

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF TRAILS & WATERWAYS
PLAN AND PROFILE

PAUL BUNYAN STATE TRAIL
BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI

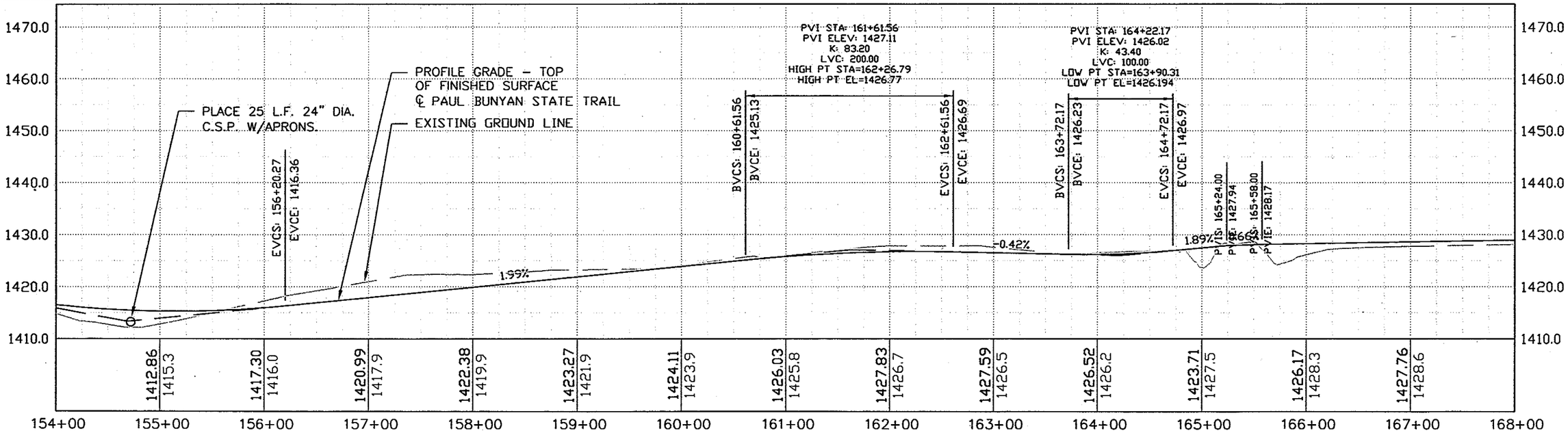
Sec. VARIES T.144 -146 N. R. 33 W.
Reg. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 17

STATE PROJ. NO. SP92-090-35 SHEET NO. 17 OF 68 SHEETS



RAPID STABILIZATION

STATION	LOCATION	DESCRIPTION	AREA (ACRE)
154+00 TO 165+25 TO	LT/RT	METHOD 1	.53



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

JOHN FILARDO
DATE 6/4/08 LIC. NO. 24345

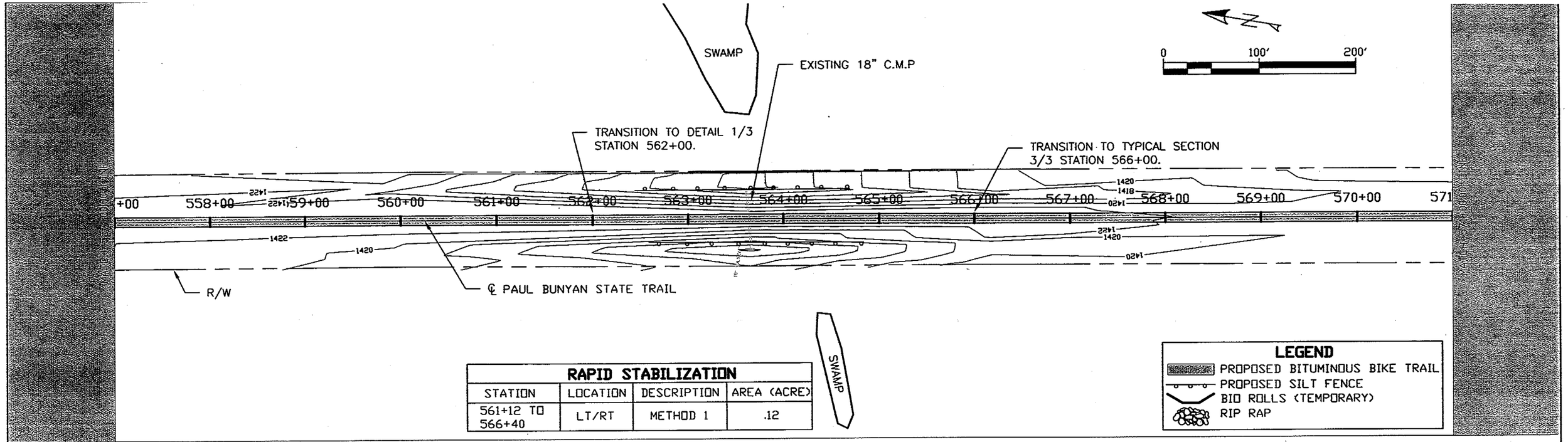
BUREAU OF MANAGEMENT RESOURCES	
Survey 11/2007 R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON, D. SETHER
Checked J. FILARDO	Checked 3/2007 J. FILARDO
Horz Datum NAD 83 HUBBARD CNTY	Vert Datum NAVD 88
Latest Revision D. SETHER 5/29/08	Revised By D. SETHER
Ref. Dwgs.	

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF TRAILS & WATERWAYS
PLAN AND PROFILE

PAUL BUNYAN STATE TRAIL
BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI

Sec. VARIES T.144 -146 N. R. 33 W.
Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 18

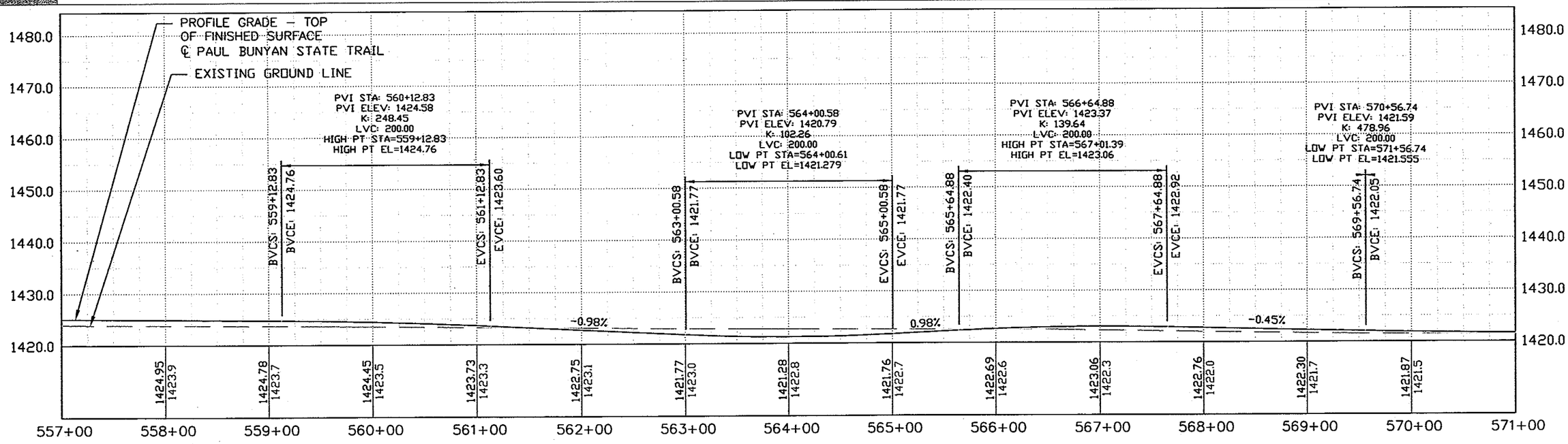
STATE PROJ. NO. SP92-090-35 SHEET NO. 18 OF 68 SHEETS



RAPID STABILIZATION			
STATION	LOCATION	DESCRIPTION	AREA (ACRE)
561+12 TO 566+40	LT/RT	METHOD 1	.12

LEGEND

- PROPOSED BITUMINOUS BIKE TRAIL
- PROPOSED SILT FENCE
- BIO ROLLS (TEMPORARY)
- RIP RAP



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

JOHN FILARDO
DATE 5/14/08 LIC. NO. 24345

BUREAU OF MANAGEMENT RESOURCES

Survey 11/2007	R. AHO D. DRUSCH	Designed 3/2007	J. FILARDO
Drawn	D. SETHER	Drawn 3/2007	J. ERICKSON, D. SETHER
Checked	J. FILARDO	Checked 3/2007	J. FILARDO
Horz Datum	NAD 83 HUBBARD CNTY	Vert Datum	NAVD 88
Latest Revision 5/29/08		Revised By D. SETHER	
Ref. Dwgs.			

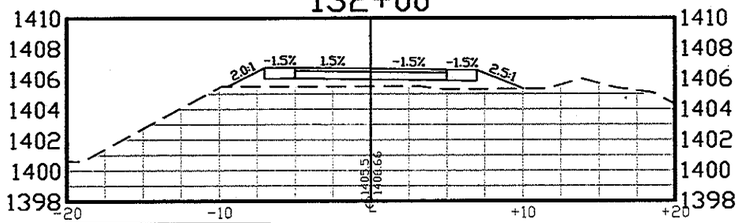
MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF TRAILS & WATERWAYS
PLAN AND PROFILE

PAUL BUNYAN STATE TRAIL
BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI

Sec. VARIES T. 144 -146 N. R. 33 W.
Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 47

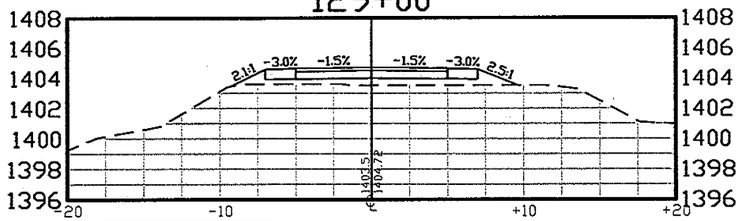
STATE PROJ. NO. SP92-090-35 SHEET NO. 47 OF 68 SHEETS

132+00



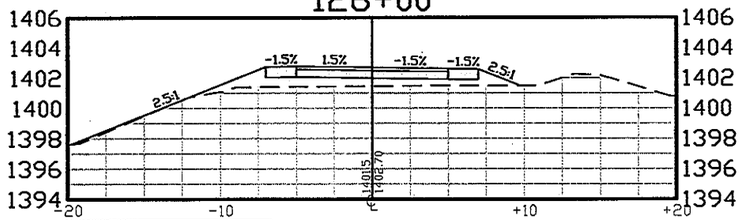
Material Name	Area	Volume
CUT	0.00	0.00
FILL	10.58	104.48

129+00



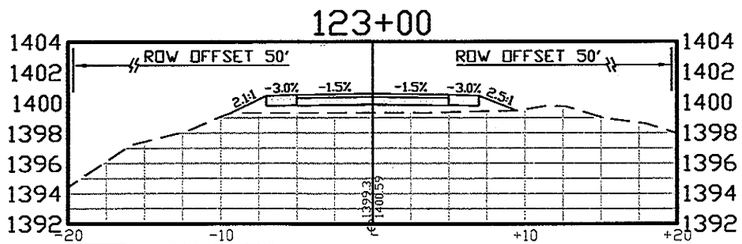
Material Name	Area	Volume
CUT	0.00	0.00
FILL	8.23	114.52

126+00



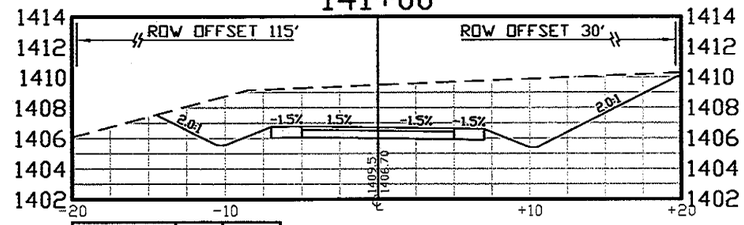
Material Name	Area	Volume
CUT	0.00	0.01
FILL	12.39	122.14

123+00



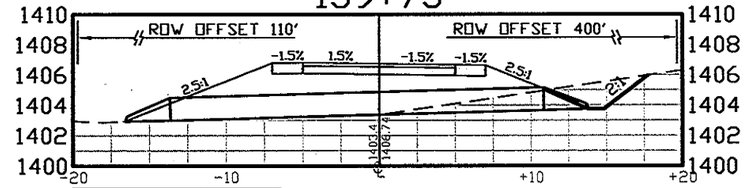
Material Name	Area	Volume
CUT	0.00	0.01
FILL	9.60	88.12

141+00



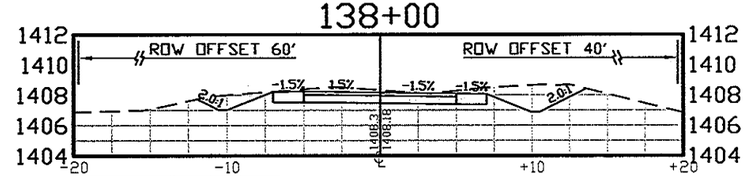
Material Name	Area	Volume
CUT	101.24	234.36
FILL	0.00	129.15

139+75



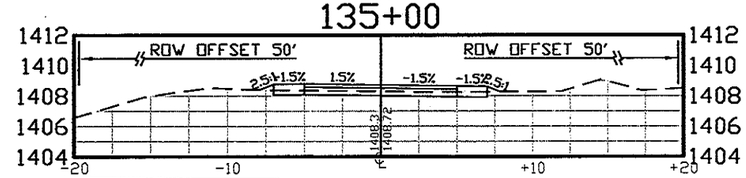
Material Name	Area	Volume
CUT	0.00	71.73
FILL	55.79	180.81

138+00



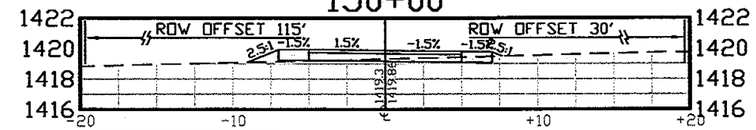
Material Name	Area	Volume
CUT	22.13	145.84
FILL	0.00	1.84

135+00



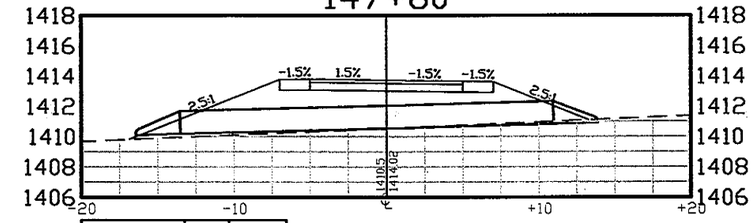
Material Name	Area	Volume
CUT	4.12	22.88
FILL	0.33	60.62

150+00



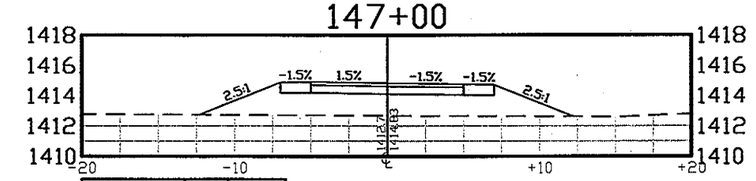
Material Name	Area	Volume
CUT	2.29	9.34
FILL	1.01	285.44

147+80



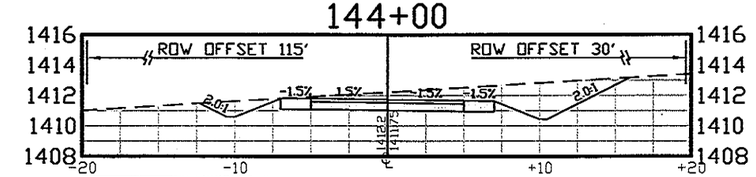
Material Name	Area	Volume
CUT	0.00	0.00
FILL	69.05	148.80

147+00



Material Name	Area	Volume
CUT	0.00	181.24
FILL	31.39	174.39

144+00

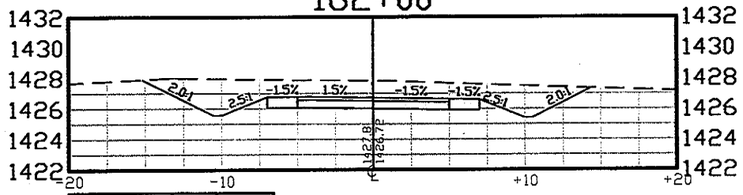


Material Name	Area	Volume
CUT	32.62	743.69
FILL	0.00	0.00

BUREAU OF MANAGEMENT RESOURCES		MINNESOTA DEPARTMENT OF NATURAL RESOURCES
Survey 11/2007 R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO	DIVISION OF TRAILS & WATERWAYS
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON, D. SETHER	CROSS SECTIONS
Checked J. FILARDO	Checked 3/2007 J. FILARDO	TRAIL CONSTRUCTION
Horz Datum NAD 83 HUBBARD CNTY	Vert Datum NAVD 88	PAULBUNYAN STATE TRAIL
Latest Revision 5/29/08	Revised By D. SETHER	BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI
Ref. Dwgs.		Sec. VARIES T. 144 -146 N. R. 33 W.
		Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 54

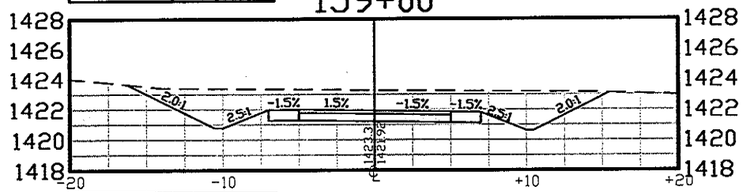
STATE PROJ. NO. SP92-090-35 SHEET NO. 54 OF 68 SHEETS

162+00



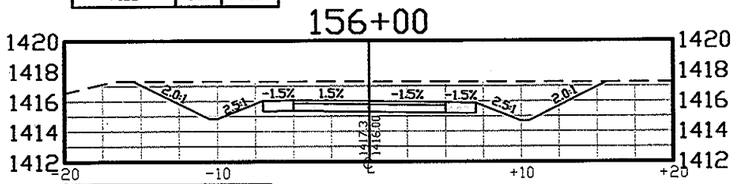
Material Name	Area	Volume
CUT	47.09	577.61
FILL	0.00	0.00

159+00



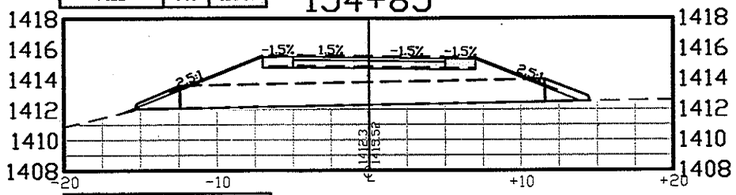
Material Name	Area	Volume
CUT	56.88	621.52
FILL	0.00	0.00

156+00



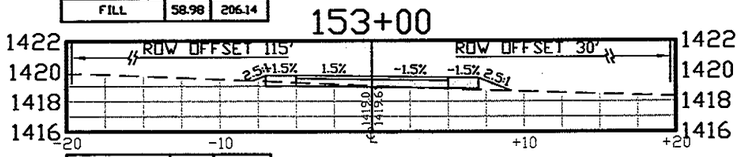
Material Name	Area	Volume
CUT	54.99	117.12
FILL	0.00	125.60

154+85



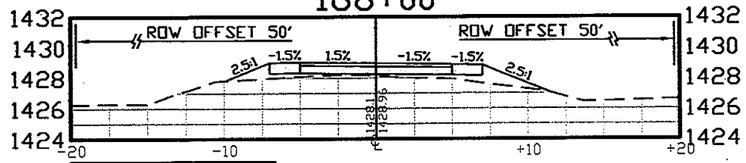
Material Name	Area	Volume
CUT	0.00	4.66
FILL	58.98	206.14

153+00



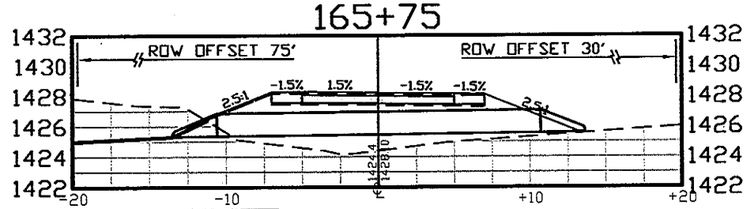
Material Name	Area	Volume
CUT	1.36	20.30
FILL	1.19	12.26

168+00



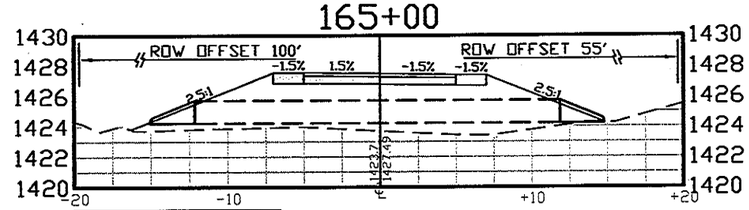
Material Name	Area	Volume
CUT	0.00	0.02
FILL	7.02	225.46

165+75



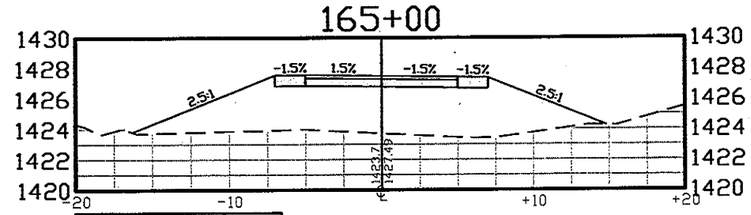
Material Name	Area	Volume
CUT	0.01	0.01
FILL	47.09	65.41

165+00



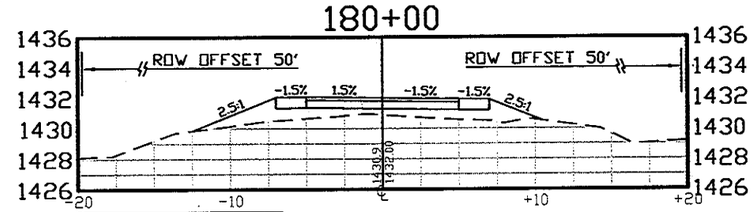
Material Name	Area	Volume
CUT	0.00	261.62
FILL	60.27	334.82

165+00



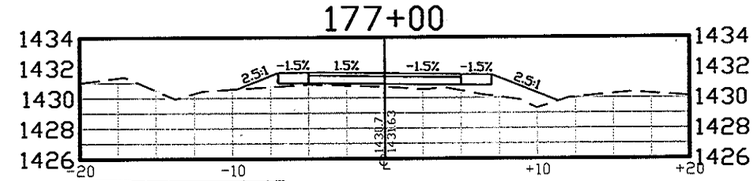
Material Name	Area	Volume
CUT	0.00	261.62
FILL	60.27	334.82

180+00



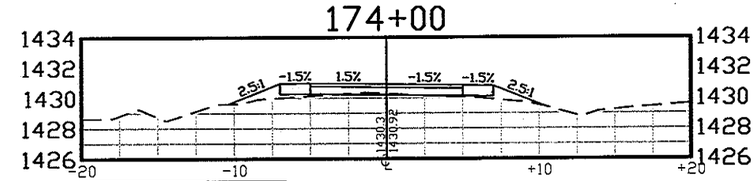
Material Name	Area	Volume
CUT	0.00	0.00
FILL	14.71	129.08

177+00



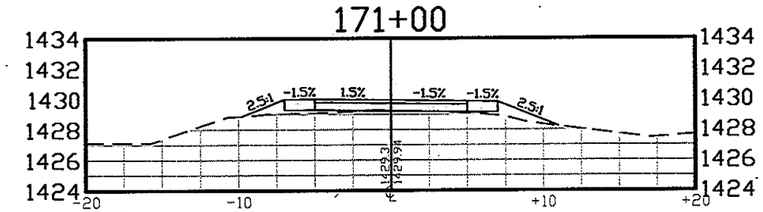
Material Name	Area	Volume
CUT	0.00	2.04
FILL	8.52	68.10

174+00



Material Name	Area	Volume
CUT	0.37	2.39
FILL	3.74	45.36

171+00



Material Name	Area	Volume
CUT	0.06	0.34
FILL	4.43	63.59

BUREAU OF MANAGEMENT RESOURCES		MINNESOTA DEPARTMENT OF NATURAL RESOURCES
Survey 11/2007 R. AHO D. DRUSCH	Designed 3/2007 J. FILARDO	DIVISION OF TRAILS & WATERWAYS
Drawn D. SETHER	Drawn 3/2007 J. ERICKSON, D. SETHER	CROSS SECTIONS
Checked J. FILARDO	Checked 3/2007 J. FILARDO	TRAIL CONSTRUCTION PAULBUNYAN STATE TRAIL
Horz Datum NAD 83 HUBBARD CNTY	Vert Datum NAVD 88	BELTRAMI, HUBBARD COUNTY NEAR BEMIDJI
Latest Revision 5/29/08	Revised By D. SETHER	Sec. VARIES T. 144 -146 N. R. 33 W.
Ref. Dwgs.		Req. TO-07-23 File Sheet File TRA00725.06.00.07 Plan Sheet 55

STATE PROJ. NO. SP92-090-35 SHEET NO. 55 OF 68 SHEETS