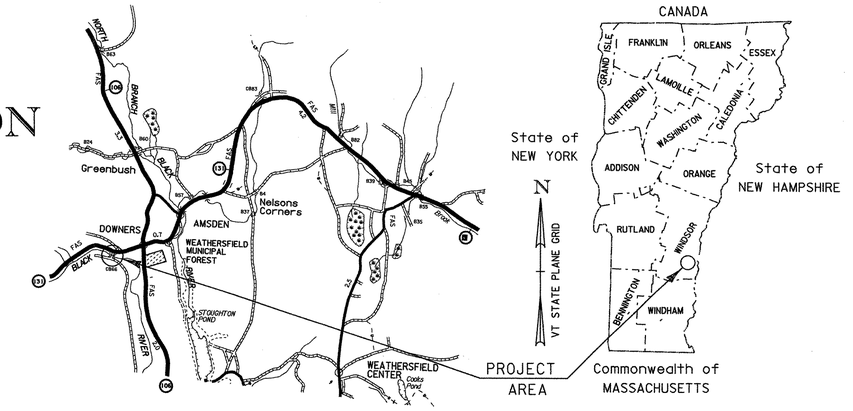
SEE SHEET 2 FOR INDEX OF
SHEETS AND LIST OF STANDARDS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF WEATHERSFIELD
COUNTY OF WINDSOR
T.H. 20 BRIDGE # 66

BEGINNING IMMEDIATELY SOUTH OF STATE ROUTE 131
ACROSS THE BLACK RIVER FROM THE INTERSECTION OF T.H. 20 AND T.H. 19

LENGTH OF ROADWAY = 54.25 FEET (0.010 MILES)
LENGTH OF BRIDGE = 120.75 FEET (0.023 MILES)
LENGTH OF PROJECT = 175.00 FEET (0.033 MILES)

WORK TO BE PERFORMED ON THIS PROJECT INCLUDES REHABILITATION OF EXISTING COVERED BRIDGE, WITH NECESSARY APPROACH WORK

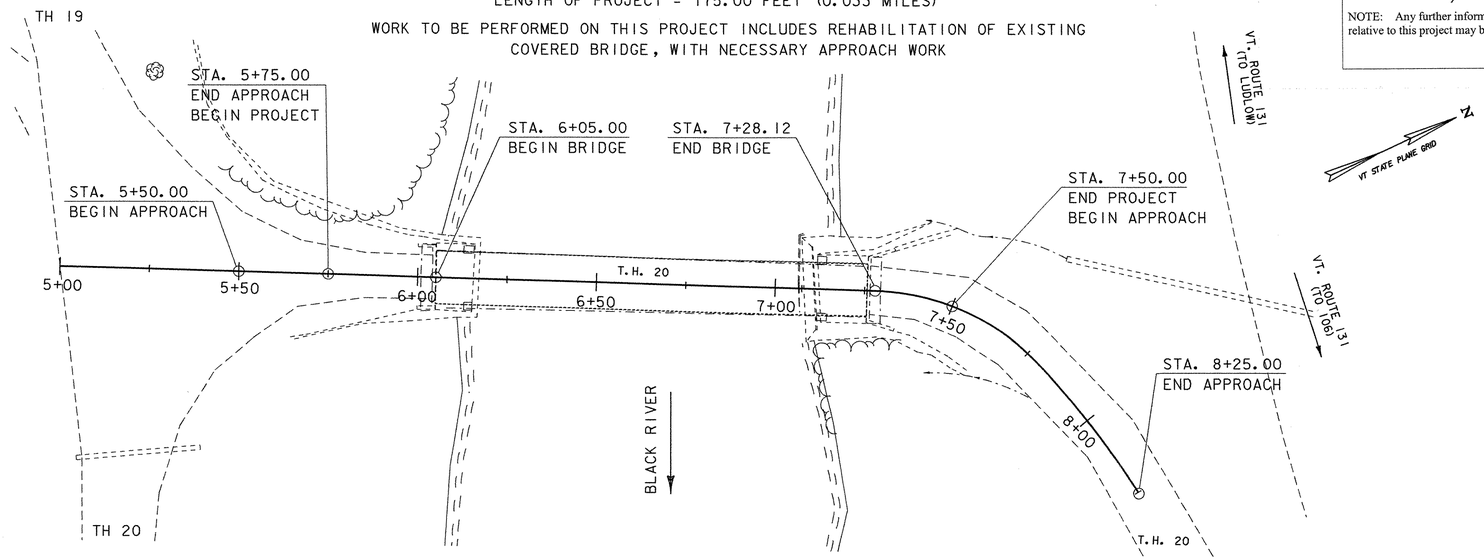
RECORD PLANS

CONTRACTOR: WRIGHT CONSTRUCTION CO., INC. – MT HOLLY, VT
RESIDENT ENGINEER: TOM CHASE
CONSTRUCTION BEGAN: JUNE 18, 2007
CONSTRUCTION COMPLETE: OCTOBER 7, 2008
RECORD PLANS BY: TOM CHASE & BEN LOGAN

I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY Jacques D Couture RESIDENT ENGINEER
DATE 9/22/09

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.



CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS (SR SR SR)
TOP OF CUT
TOE OF SLOPE

SURVEYED BY : R. GILMAN
SURVEYED DATE : 12/23/02

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD-83 (96)

0 20 40
SCALE IN FEET

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATOR
APPROVED Ted C Kinsley DATE 3-16-07

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED Richard D Tetreau DATE 3-1-07

PROJECT MANAGER : W. SYMONDS

PROJECT NAME : WEATHERSFIELD
PROJECT NUMBER : ACBRO 1442 (29)

SHEET 1 OF 60 SHEETS

/96|234/str/s96|234ti.dgn s|234ti.i 28-FEB-2007

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET

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9.	ROW - TEMPORARY CONSTRUCTION EASEMENT
10.	TIE SHEET
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41.	ABUTMENT #2 CAP DETAILS
42.	ABUTMENT #2 CONCRETE FACING REPAIRS
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55. - 60.	CHANNEL SECTIONS

LIST OF STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	1/2/2004
E-100A	SIDE ROAD CONSTRUCTION - APPROACH SIGNS	1/2/2004
E-101	CONSTRUCTION SIGN DETAILS	5/30/2003
E-102	CONSTRUCTION SIGN DETAILS	6/30/2003
E-102A	CONSTRUCTION SIGN DETAILS	5/1/2004
E-106	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	3/1/2004
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	6/30/2003
E-107A	BREAKAWAY BARRICADE DETAILS	8/8/1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
E-160	FLANGED CHANNEL STEEL SIGN POST	5/20/1999
G-1B	BOX BEAM GUARD RAIL	1/3/2000

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: October 2006

DRAINAGE AREA : 114.8 sq. mi.
CHARACTER OF TERRAIN : Hilly to mountainous, mostly forested.
STREAM CHARACTERISTICS : Sinous, semi-alluvial, stable channel.
NATURE OF STREAMBED : Sand, cobbles and boulders.

PEAK FLOW DATA

Q 2.33 =	3,500 cfs	Q 50 =	15,000 cfs
Q 10 =	9,200 cfs	Q 100 =	18,500 cfs
Q 25 =	12,000 cfs	Q 500 =	27,800 cfs

DATE OF FLOOD OF RECORD : June & July 1973
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: 585.6' at a point 300' upstream of covered bridge.
NATURAL STREAM VELOCITY: @ Q25 = 10.1 fps
ICE CONDITIONS : Moderate
DEBRIS: Moderate
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? Yes
IS ORDINARY RISE RAPID? Yes
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
IF YES, DESCRIBE:

WATERSHED STORAGE: 1%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Covered bridge
YEAR BUILT: 1840
CLEAR SPAN(NORMAL TO STREAM): 90' minimum at bottom (93' average at inlet)
VERTICAL CLEARANCE ABOVE STREAMBED: 26'
WATERWAY OF FULL OPENING: 2330 sq. ft.
DISPOSITION OF STRUCTURE: Rehabilitate
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See boring logs.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	574.9'	VELOCITY =	7.2 fps
Q10 =	579.1'	"	11.8 fps
Q25 =	581.0'	"	13.1 fps
Q50 =	583.0'	"	14.2 fps
Q100 =	584.9'	"	16.0 fps

LONG TERM STREAMBED CHANGES: There is some minor local scour along the abutments. Otherwise the channel is stable with no apparent changes noted.

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY: above Q100
RELIEF ELEVATION: 596.7'
DISCHARGE OVER ROAD @Q100: None

UPSTREAM STRUCTURE

TOWN: Cavendish — DISTANCE: 3.9 mi.
HIGHWAY # : T.H. 29 — STRUCTURE #: 45
CLEAR SPAN: 87' — CLEAR HEIGHT: 14'
YEAR BUILT: 1890 — FULL WATERWAY: 1200 sq. ft.
STRUCTURE TYPE: Single span truss bridge

DOWNSTRUCTURE STRUCTURE

TOWN: Weathersfield — DISTANCE: 2.0 mi.
HIGHWAY # : VT 106 — STRUCTURE #: 8
CLEAR SPAN: 273' total — CLEAR HEIGHT: 31
YEAR BUILT: 1988 — FULL WATERWAY: 6500 sq. ft.
STRUCTURE TYPE: 3 span plate girder

LOAD FACTOR - LOAD RATING (TONS)

LOADING LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	---	---					
POSTED	6	---	---		---	---	---
OPERATING		---	---	---	---	---	

COMMENTS:

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2002	10	15	54	6	5
2022	130	20	54	6	10

20 year ESAL for flexible pavement from 2002 to 2022 : <50,000
40 year ESAL for flexible pavement from 2002 to 2042 : 109,000
Design Speed : mph

PROPOSED STRUCTURE

STRUCTURE TYPE: Rehabilitated covered bridge. All information the similiar as existing.

CLEAR SPAN(NORMAL TO STREAM): 90' min. at bot. (93' ave. at inlet)
VERTICAL CLEARANCE ABOVE STREAMBED: 26'
WATERWAY OF FULL OPENING: 2310 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	575.0'	VELOCITY=	7.5 fps
Q10 =	579.3'	"	12.1 fps
Q25 =	581.2'	"	13.5 fps
Q50 =	583.2'	"	14.5 fps
Q100 =	585.2'	"	16.4 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY: Above Q100
RELIEF ELEVATION: 596.7'
DISCHARGE OVER ROAD @Q100: None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 594.0'
VERTICAL CLEARANCE: @ Q100 8.8'

SCOUR: Calcualted 2.3' of contraction scour at Q100 and 6.4' at Q500.

REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV

PERMIT INFORMATION

AVERAGE DAILY FLOW:	240cfs	
ORDINARY LOW WATER:	110 cfs	DEPTH OR ELEVATION: 2'
ORDINARY HIGH WATER:	1500 cfs	5'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporary bridge required. The road will be closed.
CLEAR SPAN (NORMAL TO STREAM):
VERTICAL CLEARANCE ABOVE STREAMBED:
WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO 12500 lb Truck
2. DESIGN SPAN 121 ft
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL
   ON LEDGE
4. ALLOWABLE LOAD FOR PILING
   TYPE
   ESTIMATED LENGTH
5. STRUCTURAL STEEL AASHTO M270M/M270 GRADE 50
6. REINFORCING STEEL GRADE 60
7. CONCRETE, HIGH PERFORMANCE CLASS A f'c:
   CONCRETE, HIGH PERFORMANCE CLASS B f'c: 3500 psi
8. DESIGN SOIL UNIT WEIGHT
9. DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL

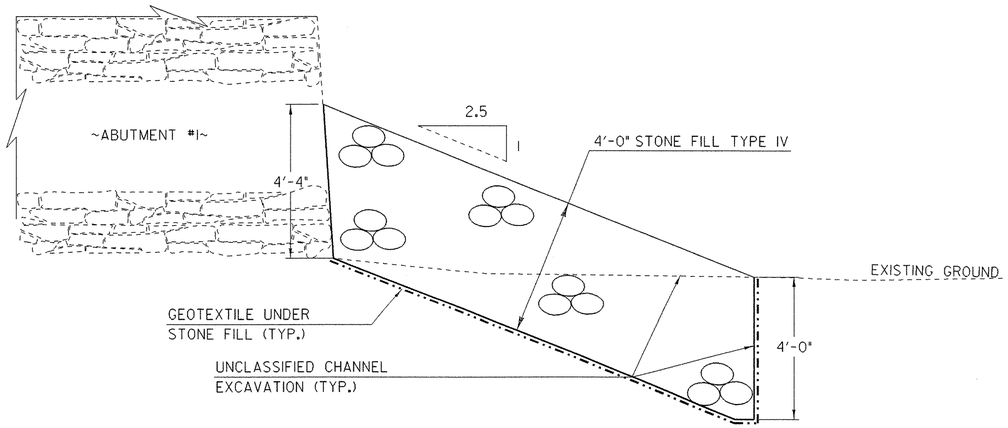
TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED? NO
   IF YES, ON EXISTING STRUCTURE? N/A
   OR ON TEMPORARY BRIDGE? N/A
   ONE OR TWO-WAY TRAVEL? N/A
2. TRAFFIC CONTROL SIGNALS REQUIRED? NO
3. ARE SIDEWALKS REQUIRED? NO
   IF SO, ON WHAT SIDE? N/A

PROJECT NAME: **WEATHERSFIELD**
PROJECT NUMBER: **BHO 1442(29)**

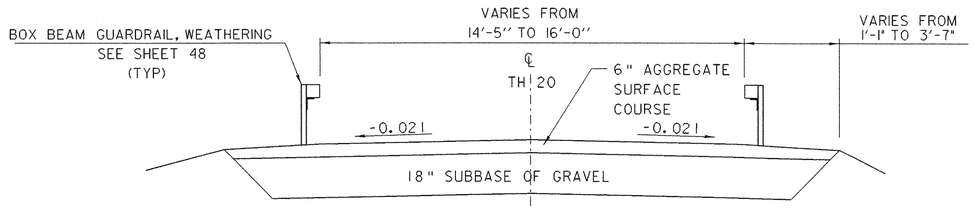
FILE NAME: **/96j234/str/sj234pi.xls**
PROJECT MANAGER: **W.SYMONDS**
DESIGNED BY: **T. SUMNER**
PRELIMINARY INFORMATION SHEET

PLOT DATE: **3/14/2007**
DRAWN BY: **G. SHANGRAW**
CHECKED BY: **T. SUMNER**



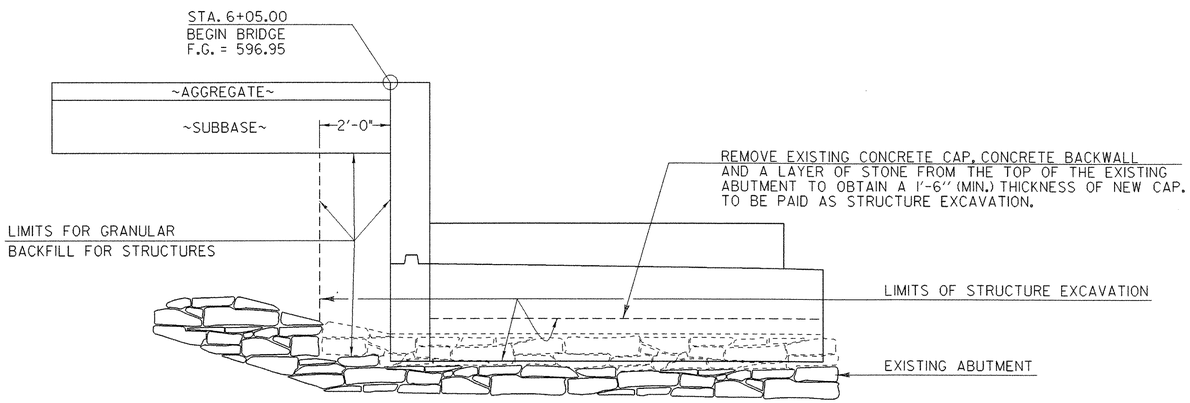
TYPICAL SECTION OF STONE FILL AT ABUTMENT 1

SCALE: 1/2" = 1'



ROADWAY TYPICAL

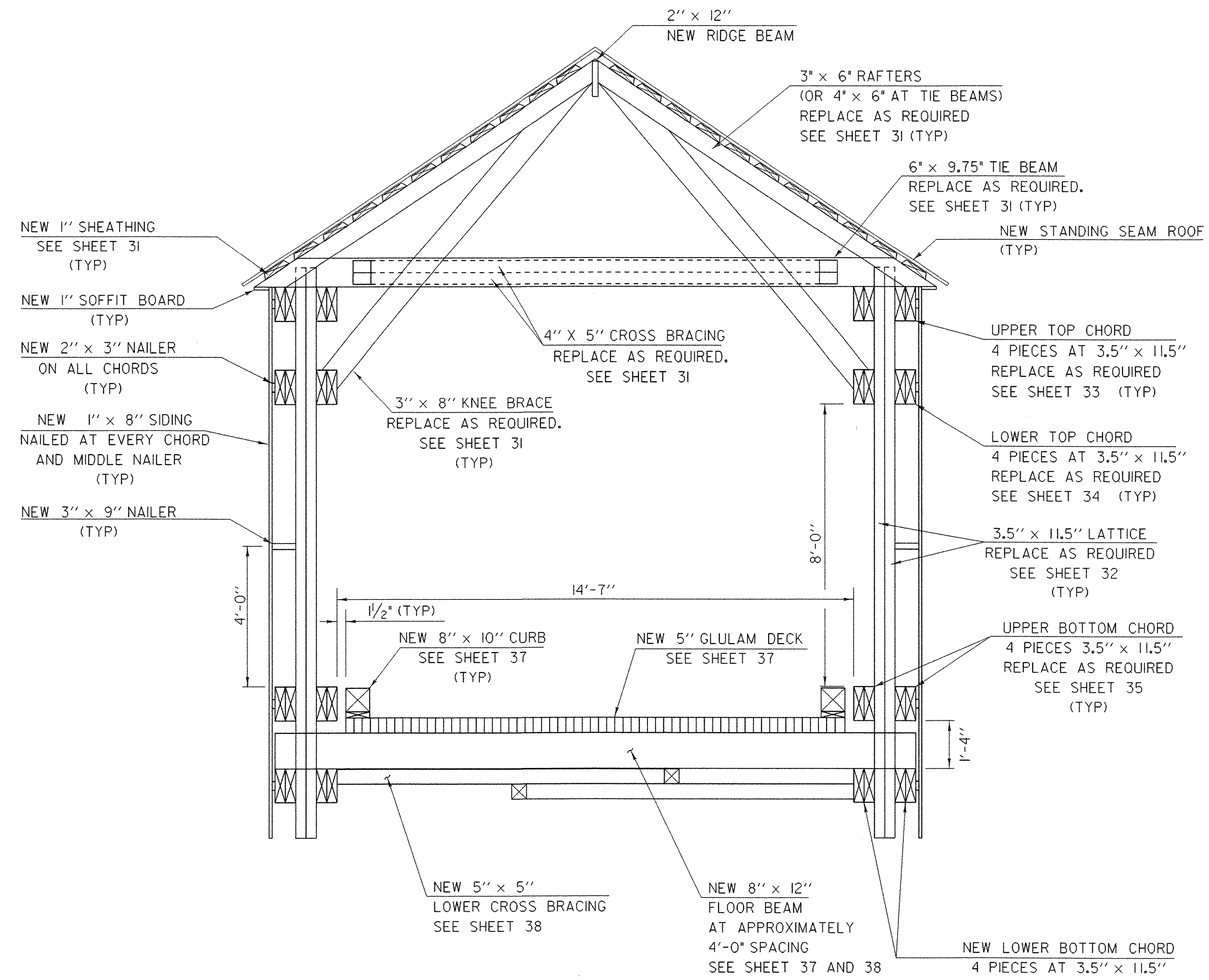
SCALE: 3/8" = 1'-0"



ABUTMENT #1 TYPICAL EARTHWORK SECTION

NOT TO SCALE

ABUTMENT #2 WILL BE SIMILAR. ABUTMENT #2 HAS A CONCRETE FACING OVER THE EXISTING STONE ABUTMENT THAT WILL BE REPAIRED.



BRIDGE TYPICAL SECTION

SCALE 1/2" = 1'-0

1 0 1 2

MATERIAL	TOLERANCE
AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE OR GRAVEL	+/- 1"

NOTE: DIMENSIONS OF TIMBER MEMBERS SHOWN ON THE PLANS ARE THE ACTUAL SIZES TO BE PLACED.

TYPICAL SECTIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234typ.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234typ.i
PLOT DATE: 15-MAR-2007
DRAWN BY: J. GILMORE
CHECKED BY: T. SUMNER
SHEET 3 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
						ROADWAY	EROSION CONTROL	BRIDGE	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1				1		LS	CLEARING AND GRUBBING, NCLUDING INDIVIDUAL TREES AND STUMPS	201.10				
						290				290		CY	COMMON EXCAVATION	203.15				
								90		90		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27				
							10			10		CY	TRENCH EXCAVATION OF EARTH	204.20				
								70		70		CY	STRUCTURE EXCAVATION	204.25				
								40		40		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30				
						110				110		CY	SUBBASE OF GRAVEL	301.15				
						40				40		CY	AGGREGATE SURFACE COURSE	401.10				
								50		50		CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34				
								1		1		LS	SHORING SUPERSTRUCTURE	502.10				
								400		400		LB	STRUCTURAL STEEL	506.60				
								7455		7455		LB	EPOXY COATED REINFORCING STEEL	507.17				
								7.6		7.6		MFBM	STRUCTURAL LUMBER AND TIMBER, UNTREATED	522.20				
								13.5		13.5		MFBM	STRUCTURAL LUMBER AND TIMBER, TREATED	522.25				
								6		6		MFBM	NONSTRUCTURAL LUMBER, UNTREATED	522.30				
								1		1		LS	STRUCTURAL GLUED LAMINATED TIMBER (8.7 MFBM) (DECK PANELS)	522.40				
								1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20				
								54		54		SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	580.14				
								12		12		CY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III	580.15				
						40				40		CY	STONE FILL, TYPE I	613.10				
								200		200		CY	STONE FILL, TYPE IV	613.13				
						123				123		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
									1	1		LS	FIELD OFFICE, ENGINEERS	631.10				
									1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
									1	1		LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25				
						1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
						1				1		LS	TRAFFIC CONTROL	641.10				
								200		200		SY	GEOTEXTILE UNDER STONE FILL	649.31				
							50	50		100		SY	GEOTEXTILE FOR SILT FENCE	649.51				
							10			10		LB	SEED	651.15				
							50			50		LB	FERTILIZER	651.18				
							.25			.25		TON	AGRICULTURAL LIMESTONE	651.20				
							.25			.25		TON	HAYMULCH	651.25				
							1			1		LS	EPSC PLAN	652.10				
							30			30		HR	MONITORING EPSC PLAN	652.20				
							1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
							1400			1400		SY	PERMANENT EROSION MATTING	653.21				
							10			10		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
							30			30		CY	VEHICLE TRACKING PAD	653.35				
							620			620		LF	PROJECT DEMARCATION FENCE	653.55				

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234qs.xls
PROJECT MANAGER: W. SYMONDS
DESIGNED BY: G. SHANGRAW
QUANTITY SHEET #1

PLOT DATE: 02/22/2007
DRAWN BY: R. PELLETT
CHECKED BY: T. SUMNER
SHEET 4 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	EROSION CONTROL	BRIDGE	FULL C. E. ITEMS
15			
24			
2			
		4	
		20	
183			
		1	
		1	
		1	
		3150	

TOTALS

GRAND TOTAL	FINAL
15	
24	
2	
4	
20	
183	
1	
1	
1	
3150	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
SF	TRAFFIC SIGNS, TYPE A	675.20	
LF	FLANGED CHANNEL SIGN POST	675.301	
EACH	REMOVING SIGNS	675.50	
EACH	SPECIAL PROVISION (BEARING DEVICE ASSEMBLY, COVERED BRIDGE)	900.620	
GAL	SPECIAL PROVISION (WATER REPELLENT, SILANE)	900.625	
LF	SPECIAL PROVISION (BOX BEAM GUARDRAIL, WEATHERING)	900.640	
LS	SPECIAL PROVISION (TIMBER PAINTING, ENVIRONMENTAL PROTECTION)	900.645	
LS	SPECIAL PROVISION (TIMBER PAINTING, FIRE RETARDANT)	900.645	
LS	SPECIAL PROVISION (TIMBER PAINTING, INSECTICIDE/FUNGICIDE)	900.645	
SF	SPECIAL PROVISION (METAL ROOFING)(FPQ)	900.670	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234qs.xls
PROJECT MANAGER: W. SYMONDS
DESIGNED BY: G. SHANGRAW
QUANTITY SHEET #2

PLOT DATE: 02/22/2007
DRAWN BY: R. PELLETT
CHECKED BY: T. SUMNER
SHEET 5 OF 60

Brink, Sydney L. & William C.

Mitiguy, Edmund

BEGIN ROW EASEMENT
STATION 5+31.9
54.3' LT.

END ROW EASEMENT
STATION 6+15.3
24.8' LT.

5+31.9
54.3 LT.

5+82.9
71.1 LT.

5+78.2
56.9 LT.

5+40.7
44.6 LT.

6+00.6
24.8 LT.

6+15.3
24.8 LT.

AREA OF TEMPORARY CONSTRUCTION EASEMENT

NOTE: EASEMENT IS TO PROVIDE CONSTRUCTION ACCESS TO THE STONE FILL AREA

SIGN
18" CGMP
9" DECIDUOUS TREE
3' DIA. QUARTZ BOULDER
24" ASH
HVCTRL
WOODS
HVCTRL
5+00
6+00
SIGN WEIGHT LIMIT 3 TONS
ASH
HVCTRL #10
15" CGMP
WOODS

52+00
BLACK RIVER
CHANNEL LINE
N. 63-22-25.5" W.
51+00
N. 26°-37'-34.5" E.
7+00

VT STATE PLANE GRID

WOODS
SIGN WEIGHT LIMIT 3 TONS
WATER COURSE
WOODS
Curve #1
PI 7+54.44 bk =
7+51.81 ahd
HVCTRL
3 OAKS
N. 70°-41'-46.9" E.
Cur
PI
WATER COURSE
ASH
HVCTRL
PC 7+28.07
WOODS
8+00
PCC 7+78.18

CURVE #1 DATA

△ = 44°-10'-12.4" Rt.
D = 88°-08'-50.5"
R = 65.00
T = 26.37
L = 50.11
E = 5.15

CURVE #2 DATA

△ = 9°-26'-49.2" Rt.
D = 25°-41'-35.4"
R = 223.00
T = 18.43
L = 36.77
E = 0.76

ROW – TEMPORARY CONSTRUCTION EASEMENT

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/easementbdr.dg
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. SUMNER
s96j234easement.i

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: J. LACROIX
SHEET 9 OF 60

GPS CONTROL POINTS

HVCTRL # 1

STANDARD DISK STAMPED

Downers Az Mk

N = 328821.606
E = 1636456.071
ELEV. =

To reach from the intersection of VT route 131 and VT route 106 at Downers go north along route 106 for 0.2 mi. to the site of the mark on the left at the north end of a gravel pullout. The mark is set 5 cm (2 in.) below ground surface in the top of a 30 cm (1 ft.) diameter concrete monument. It is 12.2 m (40.0 ft) west northwest of and about level with the centerline of route 106, 3.8 m (12.5 ft) east southeast of the center of a stone wall, 49.1 m (161.1 ft) north northeast of pole no. 36/4, and 4.9m (16.1 ft) south southwest of pole no. 41/35/1/5 and a fiberglass witness post.
NOTE: NAD83 VTSPCS via hand held GPS 498793 E, 100226 N

HVCTRL #2

STANDARD DISK STAMPED

Downers

N = 327798.636
E = 1636576.769
ELEV. =

To reach from the intersection of VT route 131 and VT route 106 at Downers go south along route 106 for 0.05 mi to the country creemee restaurant on the left and the site of the mark on the left in a lawn just south of the restaurant. The mark is set in the top of the west end of a 0.7m (2.3ft) X 1.0m (3.3ft) rock outcrop which projects about 5 cm (2in) above ground surface. It is 18.7m (61.4ft) east southeast of and about 0.4m (1.3ft) higher than the centerline of route 106, 16.0m (52.5ft) south of the southwest corner of the restaurant, 9.1m (29.9ft) northwest of the northwest corner of a mobile home, and 11.9m (39.0ft) west of pole no. 42A/105/1.
NOTE: NAD83 VTSCPCS via hand held GPS 498819E, 90901N.

- DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT
- TO ALLOW THE STATE PLANE COORDINATES TO FIT THE AGENCY DESIGN PLANE, SUBTRACT 300,000 FROM THE NORTHING AND SUBTRACT 1,600,000 FROM THE EASTING

MAIN TRAVERSE TIES

HVCTRL #50

STANDARD DISK STAMPED

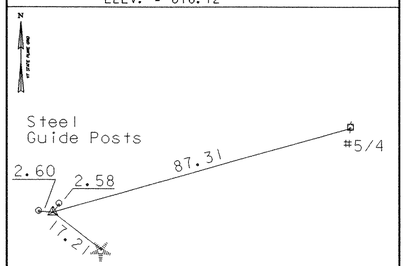
Upper Falls West Az Mk

N = 326848.264
E = 1631539.585
ELEV. = 610.53

To reach the mark from the intersection of routes 106 and 131 go westerly for 1.0 mi on route 131 and to the mark on the northerly side of route 131. The mark is 21.5 m (70.5 ft) west southwest of the center of a 200 cm (6in) metal culvert with a marble headwall, 13.4 m (44ft) north of the centerline of route 106, 4.3 m (14ft) east of a 10 cm (4in) white birch with a blaze, 4.3 m (14ft) soutwest of a 30 cm (1ft) pine with a blaze and 0.25 m (1ft) north northwest of a fiberglass witness post.

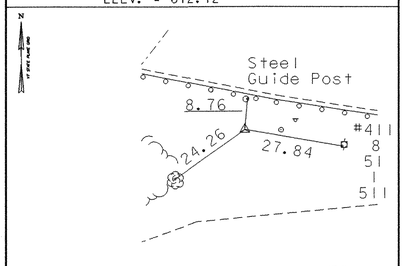
HVCTRL # 4

NORTH = 27639.42
EAST = 35334.52
ELEV. = 616.12



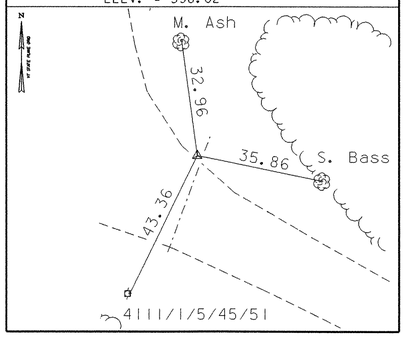
HVCTRL # 5

NORTH = 27590.77
EAST = 34643.23
ELEV. = 612.12



HVCTRL # 10

NORTH = 27319.55
EAST = 34523.22
ELEV. = 598.02



* MAIN TRAVERSE COMPLETED 12/23/02 by R. Gilman P.C. , P. Winters, D. Br

ALIGNMENT TIES

NORTH =	NORTH =	NORTH =	NORTH =	NORTH =
EAST =	EAST =	EAST =	EAST =	EAST =

* ALIGNMENT STAKED

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83 (96)
ADJUSTMENT Compass

ALIGNMENT TIES WILL BE DONE WHEN THE RESIDENT ENGINEER REQUESTS A CONSTRUCTION STAKEOUT.

TIE SHEET

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442 (29)

FILE NAME: /96j234/str/s96j234tie.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234tie.i

PLOT DATE: 15-MAR-2007
DRAWN BY: R. BULLOCK
CHECKED BY: T. SUMNER
SHEET 10 OF 60

BENCHMARK
RAILROAD SPIKE IN TREE
598.025

SIGN

9" DECIDUOUS TREE

TH #9

3' DIA. QUARTZ BOULDER

24" ASH

STA. 5+50.00
BEGIN APPROACH

STA. 5+75.00
END APPROACH
BEGIN PROJECT

STA. ~~6+05.00~~ 6+04
BEGIN BRIDGE
F.G. = 596.95

WOODS

3 ROD RIGHT-OF-WAY

BLACK RIVER

CHANNEL LINE
N. 63°-22'-25.5" W.

52+00

MAINLINE 6+75.00 =
CHANNEL LINE 51+00
DELTA 90°

HVCTRL

5+00

6+00

SIGN
WEIGHT LIMIT
3 TONS

51+00

N. 26°-37'-34.5" E.

7+00

50+00

ASH

HVCTRL
#10

15" COMP

TH #20

WOODS

5+67 RT.

WEIGHT LIMIT 3 TONS R

WEIGHT LIMIT 6 TONS N

EXISTING COVERED BRIDGE
TOWN LATTICE COVERED BRIDGE
121'-1" OVERALL SPAN
90' MIN. CLEAR SPAN AT BOTTOM
CONSTRUCTED 1840
14'-7" ROADWAY
WOODEN DECK
26' CLEAR HEIGHT ABOVE STREAMBED
LAID-UP STONE ABUTMENTS
WITH CONCRETE PADS
CONCRETE FACING ON ABUTMENT 2

REMOVAL & DISPOSAL OF GUARDRAIL
5+67 - 6+03 LT.
5+67 - 6+04 RT.
7+27 - 7+49 LT.
7+28 - 7+56 RT.

BOX BEAM GUARDRAIL, WEATHERING
5+57 ~~5+58~~ - ~~6+05~~ LT. 6+04
5+57 ~~5+58~~ - ~~6+05~~ RT. 6+04
7+27 ~~7+26~~ - 7+55 LT.
7+27 ~~7+26~~ - 7+83 RT.

CONSTRUCT SPECIAL DITCH
WITH STONE FILL, TYPE I
7+31 - 8+25 LT.
7+49 - 8+00 RT.

REMOVING SIGNS
5+67 RT.
7+49 LT.

TRAFFIC SIGN, TYPE A
1 @ 5+67 RT.
1 @ 7+49 LT.
1 @ VT ROUTE 131*

*(672 FT. FROM
STA 7+96.61 PI)

WEIGHT LIMIT 3 TONS R

WEIGHT LIMIT 6 TONS N

7+49 LT.

BENCHMARK
RAILROAD SPIKE IN ROOT
603.107

WOODS

STA. ~~7+28.12~~ 7+27.12
END BRIDGE
F.G. = 599.05

SIGN
WEIGHT LIMIT
3 TONS

Curve #1
PI 7+54.44 bk =
7+51.81 ahd

WATER COURSE

WOODS

STA. 7+50.00
END PROJECT
BEGIN APPROACH

18" COMP

3 OAKS

TREES REMOVED

HVCTRL

N. 70°-47'-46.9" E.

Curve #2
PI 7+96.61 bk =
7+96.51 ahd

WATER COURSE

ASH

STA. 8+25.00
END APPROACH

HVCTRL
#5

CURVE #1 DATA
Δ = 44°-10'-12.4" Rt.
D = 88°-08'-50.5"
R = 65.00
T = 26.37
L = 50.11
E = 5.15

CURVE #2 DATA
Δ = 9°-26'-49.2" Rt.
D = 25°-41'-35.4"
R = 223.00
T = 18.43
L = 36.77
E = 0.76

PC 7+28.07

WOODS

PCC 7+78.18

8+00

TH #20

PCC 8+15.04

WEIGHT LIMIT 3 TONS R

WEIGHT LIMIT 6 TONS N

REPLACE SIGN (REUSE EXISTING POST)
AT INTERSECTION OF VT 131 AND TH 20.
LOCATION IS OUTSIDE OF PROJECT
LAYOUT LIMITS.

TO ROUTE 131
AND DOWNERS CORNERS

N. 80°-41'-35.1" E.

VT STATE PLANE GRID

N

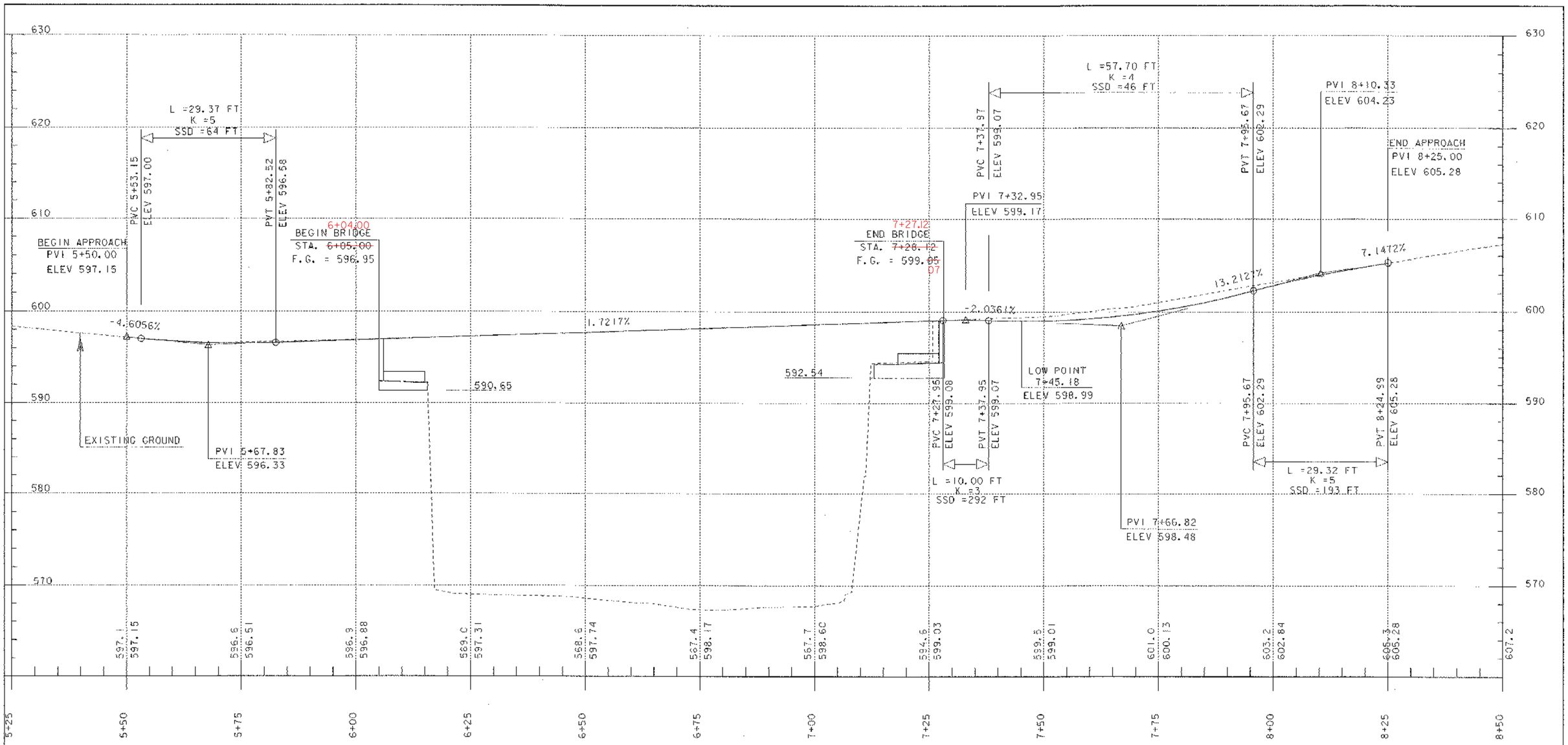
SCALE 1" = 10'-0
10 0 10

LAYOUT

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234bdr.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
s j234lol.1

PLOT DATE: 15-MAR-2007
DRAWN BY: J. GILMORE
CHECKED BY: T. SUMNER
SHEET 11 OF 60



PROFILE ALONG TH 20

NOTE:

ELEVATIONS SHOWN TO BE THE NEAREST TENTH ARE EXISTING GROUND ALONG THE CENTERLINE.
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADES ALONG CENTERLINE.

VERTICAL 0 5 10 15
HORIZONTAL 0 10 20 30
SCALE IN FEET

PROFILE

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsldgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234pro.1

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 12 OF 60

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊕	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 5/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
ROD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

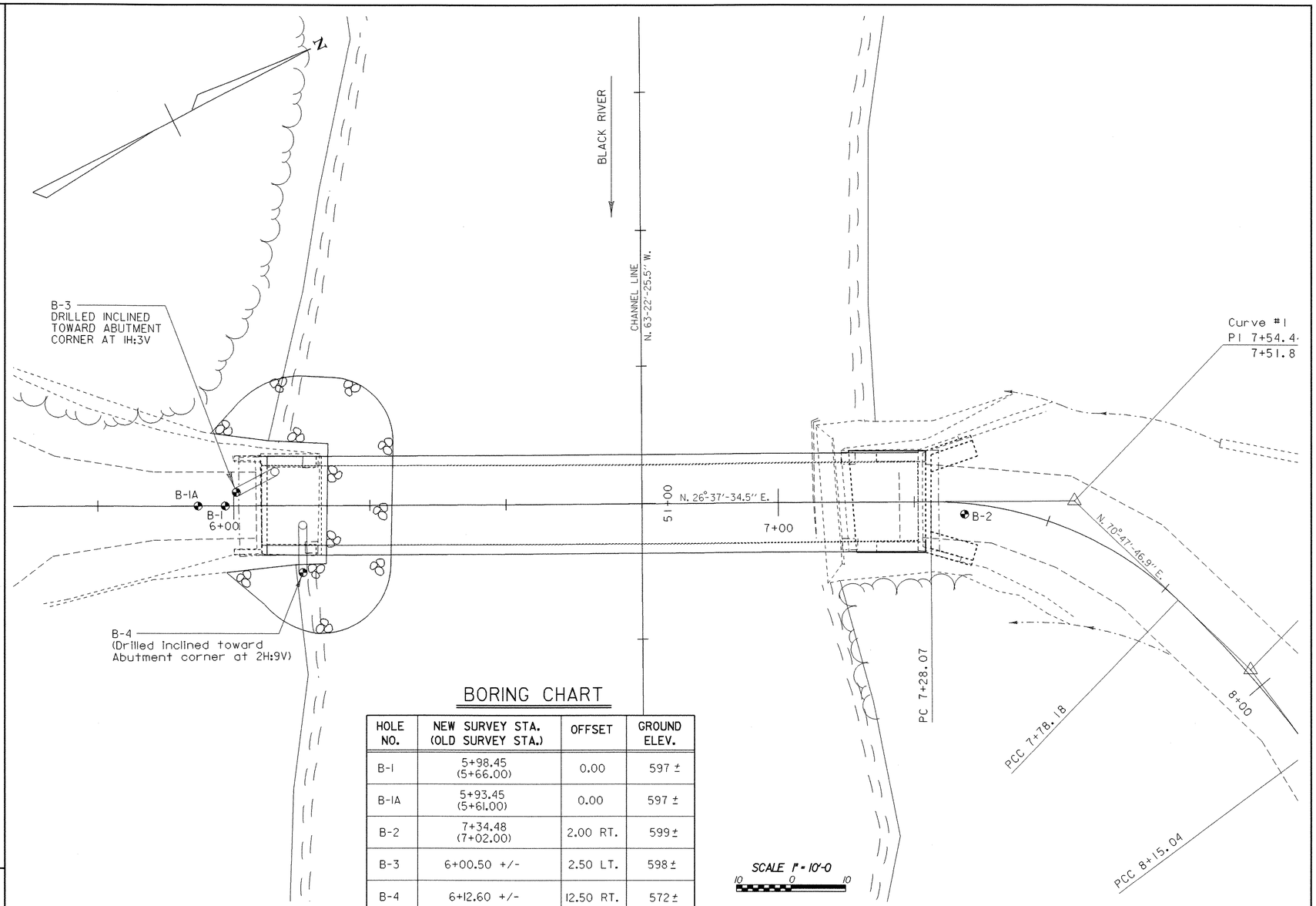
MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.



BORING CHART

HOLE NO.	NEW SURVEY STA. (OLD SURVEY STA.)	OFFSET	GROUND ELEV.
B-1	5+98.45 (5+66.00)	0.00	597 ±
B-1A	5+93.45 (5+61.00)	0.00	597 ±
B-2	7+34.48 (7+02.00)	2.00 RT.	599±
B-3	6+00.50 +/-	2.50 LT.	598±
B-4	6+12.60 +/-	12.50 RT.	572±

GENERAL NOTES

1. The subsurface explorations shown herein were made between 06-10-03 and 06-13-03 by the Agency. Additional explorations (B-3 and B-4) shown were made between 01-29-04 and 05-11-04 by GeoDesgin Inc.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

4. Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

BORING LAYOUT

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234bor.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. SUMNER
sj234bor.1

PLOT DATE: 15-MAR-2007
DRAWN BY: J. TOUCHETTE
CHECKED BY: T. SUMNER
SHEET 13 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-1
SHEET 1 OF 1
DATE STARTED: 06/11/03
DATE COMPLETED: 06/12/03

PROJECT NAME: WEATHERSFIELD
SITE NAME: BR 66
STATION: 5+66.00
GROUND EL.:

PROJECT NUMBER: BHO 1442(29)
SITE NO.: TH 20
OFFSET: 0.00
G.W. DEPTH: No water found

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL

BORING RIG: LARGE SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, GrSa, brn, Dry Rec. = 1.40'	10	4.3	29.5	55.2	15.3		
		A-1-b, GrSa, brn, Dry Rec. = 0.30'	5	3.2	36.8	50.8	12.4		
5		No Rec., Stone in sampler	6						
		BXDC, 6.0'-7.0', Boulder							
		A-1-b, GrSa, gry, Moist Rec. = 0.30'	2	12.3	39.4	48.4	12.2		
10		A-1-a, SaGr, brn, Moist Rec. = 0.45'	6	12.4	57.2	34.8	8		
		BXDC, 13.0'-16.0' No sample Boulder or Blocks							
15		Hole stopped @ 16.0'							
20									
25									
30									
35									
40									
45									

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-1A
SHEET 1 OF 1
DATE STARTED: 06/12/03
DATE COMPLETED: 06/13/03

PROJECT NAME: WEATHERSFIELD
SITE NAME: BR 66
STATION: 5+61.00
GROUND EL.:

PROJECT NUMBER: BHO 1442(29)
SITE NO.: TH 20
OFFSET: 0.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL

BORING RIG: LARGE SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, GrSa, gry-brn, Moist Rec. = 1.00'	14	6.2	31.7	52.7	15.6		
		A-1-b, GrSa, brn, Moist Rec. = 1.00'	8	5	36.7	52.6	10.7		
5		A-1-b, GrSa, gry, Moist Rec. = 1.00'	8	12.8	38.7	48.7	12.6		
		A-2-4, GrSiSa, gry, Moist Rec. = 1.00'	10	15.1	20.6	55.3	24.1		
		A-2-4, SiGrSa, gry, Moist Rec. = 0.90'	5	15	27.1	52.7	20.2		
10		A-1-b, SaGr, brn, Moist Rec. = 0.40'	14	18.4	50.6	39.1	10.3		
		A-1-a, SaGr, gry, Moist Rec. = 0.50'	44	11.3	69.2	23.2	7.6		
15		A-1-a, SaGr, brn-gry, Moist Rec. = 0.40'	37	14	54.5	33.3	12.2		
		A-1-b, SaGr, gry, Moist Rec. = 0.30'	R	13.3	47.7	40.7	11.6		
		A-1-b, GrSa, gry, Moist Rec. = 1.20'	25	19.5	40.4	47.7	11.9		
20		BXDC, 20.0'-22.25', Boulder							
25		BXDC, 24.0'-25.30', Boulder							
		BXDC, 25.80'-27.0', Boulder							
30		A-1-b, GrSa, gry, Moist Rec. = 0.45'	R	13.7	38.3	52.5	9.2		
35		A-1-b, GrSa, gry-brn, Moist Rec. = 0.90' Possible Weathered Rock	R	15.3	34.1	52.5	13.4		
40		Hole stopped @ 36.0'							
45									

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION

HOLE NO.: B-2
SHEET 1 OF 1
DATE STARTED: 06/10/03
DATE COMPLETED: 06/10/03

PROJECT NAME: WEATHERSFIELD
SITE NAME: BR 66
STATION: 7+02.00
GROUND EL.:

PROJECT NUMBER: BHO 1442(29)
SITE NO.: TH 20
OFFSET: 2.0
G.W. DEPTH: Hole caved in @ 19.0'

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL

BORING RIG: LARGE SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, SaGr, Lt/gry, Dry Rec. = 1.50'	22	3.4	45.8	41.5	12.7		
		A-1-b, GrSa, brn, Dry Rec. = 1.00'	10	5.4	32.4	58.7	8.9		
5		A-1-b, GrSa, gry, Moist Rec. = 0.90'	14	8.4	40.6	49.2	10.2		
		A-1-b, GrSa, brn-gry, Moist Rec. = 1.40'	34	12.2	38.9	46.8	14.3		
		A-1-b, GrSa, brn, Moist Rec. = 0.85'	12	18.8	38.8	52.7	8.5		
10		A-2-4, GrSa, brn, Moist Rec. = 0.80'	9	27.2	27.7	55.7	16.6		
	OR	A-2-4, SiGrSa with Trace of Organics (4.4%), Rec. = 0.90'	11	32.4	27.3	47.3	25.3		
15		A-1-a, SaGr with Broken Rock brn, Moist, Rec. = 0.80'	14	6.5	68.2	26.3	5.5		
		A-1-b, SaGr with Broken Rock brn, Moist, Rec. = 0.70'	13	15.7	49.8	38.6	11.6		
		A-2-4, SiGrSa, gry, Moist Rec. = 1.40'	13	15.5	30.9	41.9	27.2		
20	HP	A-4, SaSi HP, gry, Moist Rec. = 1.60'	27	12.3	9.5	41.9	48.6		
	HP	A-4, SaSi HP, gry, Moist Rec. = 1.40'	32	12.6	7.6	41.7	50.7		
25	HP	A-4, SaSi HP, gry, Moist Rec. = 1.90'	29	11.9	10.8	36.3	52.9		
	HP	A-4, SaSi HP, gry, Moist Rec. = 1.70'	32	11.7	7.7	35.2	57.1		
	HP	A-4, SaSi HP, gry, Moist Rec. = 2.00'	32	13.2	5.4	36.4	58.2		
30	HP	A-4, ClSi HP, gry, Moist Rec. = 1.10'	34	13.5	10.3	32.4	57.3	26	9
	HP	A-4, ClSi HP, gry, Moist Rec. = 1.80'	55	13.6	12.2	30.8	57.0	25	8
35		A-1-b, SiSaGr with Broken Rock, gry, Moist, Rec. = 0.30'	40	8.8	51.6	24.7	23.7		
40		Hole stopped @ 36.0'							
45									

BORING LOG #1

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234bor.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. SUMNER
sJ234logI.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. TOUCHETTE
CHECKED BY: T. SUMNER
SHEET 14 OF 60

GEODESIGN INCORPORATED
Geotechnical Engineers and Environmental Consultants
P.O. Box 699 1233 Shelburne Rd., Suite E-1
Windsor, VT 05089 South Burlington, VT 05403
Tel:802-674-2033 Tel:802-652-5140
Fax: 802-674-5943

BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-3
Page No.: 1 of 3
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette/Aaron Humphrey
Date Started: January 29, 2004 Date Finished: May 11, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 598
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Trailer Mount	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
2/4/04	29.0	570.4	Wet Soil

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description: Classification System: Burmister
													Gravelly Sand		
5													5.4		
		S-1	SS	5	3	5	65/5"						Concrete 592.9		S1) Very Dense / Spoon Refusal. Gray to brown, fine to coarse SAND, trace Silt. Piece of coarse Gravel stuck in spoon tip. Wet.
													6.4		
													Gravelly Sand 591.9		
10													9.9		
													Cobbles & Boulders 588.6		
		S-2	SS	2	2	13	100/2"								S2) Very dense / spoon refusal. Brown fine to medium SAND and fine to coarse Gravel, little Silt.
15															
		S-3	SS	5	5	15.5	75/5"								S3) Very dense / spoon refusal. Similar to S1 except with some fine Gravel and weathered rock fragments. Sample partially frozen.
20															
		S-4	SS	2	2	20	100/2"								S4) Very dense / spoon refusal. Similar to S3 except Bottom 1" light brown and micaceous.
													22.5		
		C-1	C	54	48	22.5					6		Stone Wall Abutment 576.6		C1) Dark gray, moderately hard, pieces of schistose boulders recovered between 6 and 10 inches long. Brown, partially frozen SILT, some fine to medium Sand, little to trace gravel
25											7				

Remarks

1) Ground surface elevation estimated from topographic base plan received from Vermont Agency of Transportation.
2) Borehole advanced using 3.5-inch O.D. carbide cutting shoe and rotary wash unless otherwise noted.
3) Concrete core recovered between 5.4 and 6.4 feet deep, possibly from sill observed above stone abutment.
4) Boulders estimated between 6 and 20 inches nominal diameter between 10 and 22 feet deep based on core recoveries and drilling resistances.
5) Back of stone wall abutment estimated to begin at 22.5 feet deep based on drill core recoveries below this depth.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-3

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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-3
Page No.: 2 of 3
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette/Aaron Humphrey
Date Started: January 29, 2004 Date Finished: May 11, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 598
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Trailer Mount	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
2/4/04	29.0	570.4	Wet Soil

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description: Classification System: Burmister
											7		Stone Wall Abutment (Continued)		recovered between boulders (seams approximately 3 to 5 inches thick).
											5/6"				
		C-2	C	30	15	27					5				C2) Top 9": Similar to C1. Bottom 6": Wood (charred on the outside surface, due possibly from core barrel rotation).
											6		29 ▼		
30											10/6"		Wood (Possible Pile Or Cribbing) 570.4		C3) Dark gray to black, schistose rock fragments.
		C-3	C	11	11	29.5							32		
		S-5	SS	24	20	30.5	4	6	21	51			32.5 Glacial Till 567.6		S5) Medium dense. Top 14": Dark brown to black SILT, little fine Gravel, trace fine to coarse Sand and wood splinters, wet. Bottom 6": Light brown to gray, micaceous fine to coarse SAND, little fine Gravel, little Silt, drier.
		S-6	SS	7	7	32.5	94	50/1"					Weathered Bedrock 567.1		
		C-4	C	48	13.5	33.1					12.5		33.5 Cobble/ Boulder 566.1		S6) Very dense / spoon refusal. Dark green to gray, micaceous SILT and fine to coarse Sand (possibly decomposed Bedrock), damp. Schistose foliation measured to be approximately 75 degrees from the horizontal.
35											7		34.6 Weathered Bedrock 565.1		
											6				C-4) Poor quality. Top 11": Moderately hard, slightly weathered, gray, SCHIST with micaceous flakes, nearly vertical fractures at 4.5" from top. Bottom 2.5": Hard, white, slightly weathered QUARTZITE, no apparent fracturing.
											7				C-5) Rock Fragments
		C-5	C	48	1	37.1					3				
											6				
40											5				
											8				
		C-6	C	15	8	42.5					-				C-6) Very poor quality. Top 4": Hard, slightly weathered, white to light gray, GRANITE, no apparent fracturing. Next 3": Red-black, fine to coarse SAND and fine to coarse GRAVEL, little Silt. Bottom 1": Hard, slightly weathered, mica SCHIST, no apparent fracturing.
45		S-7	SS	9	9	43.9	46	100/3"			-				S-7) Very dense, brown, fine to coarse SAND, little Silt, little (-) fine Gravel.
		C-7	C	60	21	44.8					-				C-7) Poor quality. Top 4": Red micaceous rock fragments. Bottom 19": Moderately hard, slightly weathered, gray SCHIST, fractured approximately 0 to 15 degrees from horizontal.
											-		47.3		
50											-		Bedrock (Schist) 553.0		

Remarks

6) Pieces of charred wood (up to 6 inches long) recovered in core barrel between 29 and 30.5 feet deep. Possible timber pile or cribbing below stone abutment.
7) Driller notes complete return of washwater during casing advance between 30.5 and 32.5 feet.
8) Spun casing to 33.1'.
9) Started losing water at 34.5', bit needed to be replaced. Used 150 gallons of water since sample S-6. River silted up, but no seepage observed through abutment. Lost 25 gallons in 15 minutes spun casing to 37.1'.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-3

BORING LOG #2

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234bor.dgn PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS DRAWN BY: J. TOUCHETTE
DESIGNED BY: T. SUMNER CHECKED BY: T. SUMNER
sj234log2.i SHEET 15 OF 60

V:\BORING LOG MC'S\1204 FOR CONVERSION TO DFX 750-04.2 LOGS 7-20-04.GPJ GEODESIGN STANDARD .GDT 2/19/05

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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-3
Page No.: 3 of 3
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette/Aaron Humphrey
Date Started: January 29, 2004 Date Finished: May 11, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 598
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Trailer Mount	

Groundwater Observations			
Date	Depth (ft)	Elev. (ft)	Notes
2/4/04	29.0	570.4	Wet Soil

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description: Classification System: Burmister
		C-8	C	60	33	49.8					6		Bedrock (Schist) (Continued)		C-8) Fair quality, moderately hard, slightly weathered along fractures, gray SCHIST. Fractures at approximately 15 to 30 degrees from horizontal @ 3.5" - 9" spacing.
											4				
											9				
											8				
55											7				
		C-9	C	5	5	54.8					6/5"				C-9) Excellent quality, moderately hard, slightly weathered along ends, gray SCHIST.
		C-10	C	49	48	55.2					10				C-10) Poor quality, moderately hard, slightly weathered along fractures and gray SCHIST, fractures @ approximately 15 to 30 degrees from horizontal.
											7				
											11				
											10		59.3		
60													Bottom of Exploration at 59.3 ft 541.6		
65															
70															
75															

Remarks:
10) Core barrel "dropped" from 39.3' - 39.8'. Siltation of river started during C-5. Lost 25 gallons of water in 15 minutes.
11) Spun casing to 42.5', after C-6, spun casing to 43.5'
12) First 2.5' of C-5 was very soft, driller inferred weathered rock due to drilling resistance and change in color of return water. No coring times recorded.
13) At 55.2' core barrel stopped turning and no water returned. Lost 25 gallons in 6 minutes.
14) During C-10 wash water changed color from brown to clear/white at 55.7'. Lost 100 gallons in 20 minutes.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-3

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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-4
Page No.: 1 of 2
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette
Date Started: February 24, 2004 Date Finished: March 1, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 572
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Skid Mount	

Groundwater Observations			
Date	Depth (ft)	Elev. (ft)	Notes

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description: Classification System: Burmister
													Gravelly Sand (fill)		
		S1	SS	24	9	2	15	38	10	18					S-1) Dense, dark brown, fine to medium SAND, little fine Gravel, trace to little Silt. Noted white piece of pottery/ceramic.
													4		
		S2	SS	5	3	4	100/5"						Boulder 568.1		S-2) Very dense/ Refusal. Gray schistose rock stuck in spoon tip.
5													5		
		S3	SS	9	2	6	28	75/3"					Sandy Silt 567.1		S-3) Very dense/ Refusal. Gray, micaceous SILT and fine SAND, with schistose rock fragments.
													6.8		
		C-1	C	12	8	7.5					8		Boulder 565.3		C-1) Dark gray to green, hard, very slightly weathered along fracture planes, closely jointed, very poor quality schist.
		S-4	SS	24	16	8.5	14	24	28	45			8.5		
10													Saprolite 563.6		S-4) Very dense, similar to S-3, except with 1/8 to 1/4" thick layers of coarser Sand. Bottom 3": Light brown instead of gray, micaceous.
		S-5	SS	24	16	10.5	28	65	54	65					S-5) Very dense, light brown Silt and fine SAND, trace Gravel, very micaceous, drier than above.
		S-6	SS	24	18	12.5	28	39	42	66					S-6) Very dense, similar to S-5 with demolished schistose rock fragments and coarser layers.
													14.5		
15		S-7	SS	24	12	14.5	11	24	30	55			Saprolite/ Weathered Bedrock 557.7		S-7) Very dense, similar to S-6 with brown, Sandy Silt seams. Moist.
20															
		C-2	C	12	0	20					8				C-2) No Recovery
		C-3	C	60	58	21					9		21.7		S-8) Attempted spoon sample at 21' with refusal on possible bedrock. No penetration. Recovered small (i.e. <2" long) pieces of garnet bearing Chlorite SCHIST from core through casing.
											13		Bedrock (Schist) 550.6		
											14.5				
25											10.15				C-3) Gray-green (fresh) to light brown (weathered), moderately hard, closer to

Remarks:
1) Ground surface elevation estimated form topographic base plan provided by VAOT. Borehole advanced using 3.5" O.D. carbide cutting shoe, except where noted.
2) Brown wash water observed after advancing borehole past 1'.
3) Approximately 5" of material stuck in bottom of casing prior to sampling S-3.
4) Higher resistance observed at 6.8' while advancing casing. Advanced casing to 7.5' and prepared to core.
5) Observed harder drilling resistance at 17.5' and further at 19.5' deep during casing advance.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-4

VT BORING LOG MC 5/20/4 FOR CONVERSION TO DFX 750-04.2 LOGS 7-20-04.GPJ GEODESIGN STANDARD.GDT 2/15/5

BORING LOG #3

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234bor.dgn PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS DRAWN BY: J. TOUCHETTE
DESIGNED BY: T. SUMNER CHECKED BY: T. SUMNER
sj234log3.1 SHEET 16 OF 60

GEODESIGN INCORPORATED
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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-4
Page No.: 2 of 2
File No.: 750-04.2
Checked By: JEL

Boring Company:	VAOT
Foreman:	Reg Holt/Randy Tallman
GeoDesign Rep.:	Jason Gaudette
Date Started:	February 24, 2004
Date Finished:	March 1, 2004
N. Coordinate:	
E. Coordinate:	
Ground Surface Elevation (feet):	572
Station:	
Offset:	ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Skid Mount	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
▼			
▼			
▼			
▼			

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description
											8		Bedrock (Schist) (Continued)		moderately fractured, weathered along joint planes. Fair quality Schist. Fractures from 30 to 50 degrees from horizontal (typically 45 degrees).
		C-4	C	36	36	26					8				C-4) Similar rock type to above, except less fractured, slightly weathered along joints.
											9				
											11		29		
30													Bottom of Exploration at 29.0 ft 543.4		
35															
40															
45															
50															

Classification System: Burmister

Remarks

6) Core attempted at 21' deep. Complete wash water return observed (gray). Probable bedrock (solid) begins at 21.7'. Driller noted wash water, gray, at this depth.
7) Possible 2" thick soil seam observed between 27.5' and 22.7' deep based on change in wash water color from gray to brown.

Notes:

1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-4

BORING LOG #4

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234bor.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. SUMNER
sj234log4.1
PLOT DATE: 15-MAR-2007
DRAWN BY: J. TOUCHETTE
CHECKED BY: T. SUMNER
SHEET 17 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

EROSION CONTROL NARRATIVE

DESCRIPTION OF PROJECT

THE PROJECT LOCATION BEGINS IMMEDIATELY SOUTH OF VT ROUTE 131 ACROSS THE BLACK RIVER FROM THE INTERSECTION OF T.H. 20 AND T.H. 19.

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES REHABILITATION OF EXISTING COVERED BRIDGE WITH THE NECESSARY APPROACH WORK. THE APPROACH WORK WILL CONSIST OF A NEW ROADBED AND NEW GUARDRAIL.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS):
0.11 ACRES.

SHOULD CHANGES PRIOR TO, OR DURING CONSTRUCTION, RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE, OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THEN THE SELECTED CONTRACTOR WILL BECOME RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VERMONT AGENCY OF NATURAL RESOURCES VIA FILING OF THE APPROPRIATE "NOTICE OF INTENT" UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

SITE INVENTORY & ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS:
THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION, WITH STEEP SLOPES OF VARIOUS GRASSES, SHRUBS AND TREES. THE DRAINAGE WAYS ARE WELL DEFINED AND RUNOFF WATER ENTERING THE PROJECT SITE WILL BE PRIMARILY LIMITED TO THAT WHICH IS CONVEYED ALONG ROADWAY DITCHES, AND EXISTING CULVERTS.

DRAINAGE, WATERWAYS, BODIES OF WATER:
THE BLACK RIVER IS LOCATED IN THE PROJECT AREA. THE BLACK RIVER HAS A SINUOUS, SEMI-ALLUVIAL, STABLE STREAMBED. THE STREAM CONSISTS OF SAND, COBBLES, AND BOULDERS. THE STREAM BANKS ARE MODERATELY STEEP THROUGHOUT THE PROJECT. THE BLACK RIVER HAS A DRAINAGE AREA OF 114.8 SQUARE MILES.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:
THE TOPOGRAPHY OF THE PROJECT SITE IS HILLY TO MOUNTAINOUS, WITH A MIXTURE OF FORESTED AND OPEN AREAS.

THE EXISTING SHAPE OF THE PROJECT AREA CAN BE SEEN BY LOOKING AT THE "EXISTING EROSION CONTROL" SHEET, WHERE THE EXISTING CONTOURS ARE SHOWN.

EXISTING SLOPES
THE PROJECT IMPACTS STEEP RIVER BANKS WITH VARYING SLOPES FROM 20 TO 40%. THE SLOPES ARE WELL VEGETATED WITH A VARYING MIX OF UNDER GROWTH AND PREDOMINALY DECIDUOUS TREES OF ALL SIZES.

PROPOSED SLOPES
THE PROPOSED SLOPE OUTSIDE THE GUARDRAIL AREAS ARE GENERALLY 1-2 SLOPES WHICH FLATTEN OUT TO 1-4 SLOPES NEAR THE GUARDRAIL TERMINALS. THERE IS A LARGE STONE-PROTECTED SLOPE FROM 7+60 LT. TO 8+25 LT. WHICH IS COVERED WITH A 1'-0'' LAYER OF STONE FILL, TYPE I. THERE WILL BE NEW STONE FILL SLOPES SURROUNDING THE BASE OF ABUTMENT #1. THE STONE WILL BE TYPE IV AND WILL BE NO STEEPER THAN A 1-2 SLOPE.

SOILS

63E - BERKSHIRE & MONADOCK COMPLEX, 35-60% SLOPES
LOAM OVER GLACIAL TILL, VERY DEEP TO BEDROCK, WELL DRAINED
64B - COLTON FINE SANDY LOAM, 3-8% SLOPES
HIGH IN ROCK FRAGMENTS, VERY DEEP TO BEDROCK AND EXCESSIVELY DRAINED
64C - COLTON FINE SANDY LOAM, 8-15% SLOPES
HIGH IN ROCK FRAGMENTS, VERY DEEP TO BEDROCK AND EXCESSIVELY DRAINED

SENSITIVE RESOURCE AREAS:
NO "THREATENED & ENDANGERED SPECIES" HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS. THE PROJECT CONSISTS OF REHABILITATING A COVERED BRIDGE AND ITS SUBSTRUCTURE WHICH HAVE BEEN IDENTIFIED AS HISTORIC RESOURCES.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:
DISTURBANCE OF SOILS NEAR NATURAL OR MAN-MADE WATERWAYS CONSISTS OF THAT WHICH IS NECESSARY TO REHABILITATE THE COVERED BRIDGE AND APPROACHES. STABILIZATION OF DISTURBANCES TO STREAM BANKS WILL BE ACCOMPLISHED WITH STONE FILL, TYPE IV.

TEMPORARY EROSION AND SEDIMENT CONTROL

PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE PROJECT DEMARCATION FENCING SHALL BE PLACED ALONG THE PERIMETER OF THE PROJECT AS SHOWN ON THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL PLANS (SHEET 20). THE INSTALLATION OF THE DEMARCATION FENCING WILL BE PERFORMED SUCH THAT NO VEGETATION ON THE OUTSIDE OF THE FENCING IS DISTURBED.

PRIOR TO ANY CONSTRUCTION OR STAGING, THE CONTRACTOR WILL INSTALL VEHICLE TRACKING PADS LEADING TO STAGING AREAS AND THE PROJECT SITE. TRACKING PAD SHALL BE INSTALLED AS SHOWN AND DESCRIBED ON DETAIL SHEET EPSC-4 VEHICLE TRACKING PAD.

SILT FENCE SHALL BE PLACED ALONG CONTOUR LINE AT LOCATIONS ILLUSTRATED ON THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL LAYOUT (SHEET 20). SILT FENCE SHALL BE INSTALLED AS SHOWN AND DESCRIBED ON THE DETAIL SHEET EPSC-1 SILT FENCE (SHEET 22).

STONE CHECK DAMS SHALL BE PLACED AT LOCATIONS OF CONCENTRATED FLOW AS SHOWN ON THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL LAYOUT (SHEET 20). STONE CHECK DAMS SHALL BE INSTALLED AS SHOWN AND DESCRIBED ON DETAIL SHEET ESPC-2 TEMPORARY CHECK DAM (SHEET 23).

TRACKING & MULCHING WILL BE USED TO TEMPORARILY STABLIZIE SLOPES. USE TRACKING FOR SHORT TERM (TWO WEEKS) EXPOSED SLOPES. DRIVE EQUIPMENT ON THE SLOPES TO LEAVE TRACKS(SMALL CHECK DAMS) THAT WILL CATCH WATER FLOW. STABILIZE SLOPES WITHIN 48 HOURS OR SOONER CONSIDERING RAIN.

SEEDING AND MULCHING WILL BE USED TO STABILIZE SLOPES. USE SEEDING FOR LONG TERM EXPOSED SLOPES. ALLOW GRASS TO TAKE TWO WEEKS TO ESTABLISH ITSELF. STABILIZE SLOPES WITHIN 48 HOURS OR SOONER CONSIDERING RAIN.

INLET PROTECTION, COFFERDAMS, SETTLING BASINS, FILTER BAGS, OR OTHER SEDIMENT STRUCTURES ARE NOT EXPECTED TO BE REQUIRED FOR THIS PROJECT.

FINAL EROSION CONTROLS

REMOVAL OF SILT FENCE SHALL COMMENCE ONLY AFTER ALL UPSLOPE AREAS ARE STABILIZED AND WELL ESTABLISHED, AND THE RESIDENT ENGINEER HAS APPROVED THE REMOVAL.

REMOVE PERIMETER CONTROLS (PROJECT DEMARCATION FENCE) ONLY AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED AND ALL SLOPES ARE STABILIZED AND WELL ESTABLISHED.

TOWN HIGHWAY 20 WILL BE A GRAVEL ROAD THAT WILL ALLOW SOME INFILTRATION OF RAINWATER. THE REMAINING WATER WILL BE SHEET FLOW TO EITHER A STONE FILL DITCH OR AN ESTABLISHED VEGETATION BUFFER.

SEEDING AND MULCHING ON ALL DISTRUBED SIDE SLOPES TO ESTABLISH PERMANENT VEGETATION. SEE EROSION CONTROL FINAL CONDITIONS LAYOUT (SHEET 21) FOR LOCATIONS OF AREAS TO BE RE-VEGETATED.

STONE FILL TYPE I WILL BE PLACED TO LINE TWO ROADWAY DITCHES FROM STATIONS 7+40 LT TO STATION 8+25 LT AND 7+60 RT TO 8+00 RT. SEE EROSION CONTROL FINAL CONDITIONS LAYOUT (SHEET 21) FOR LOCATION. GEOTEXTILE UNDER STONE FILL WILL BE USED TO INCREASE THE EFFECTIVENESS OF THE STONE FILL PREVENTING EROSION.

REMOVAL OF CHECK DAMS CAN OCCUR AFTER VEGETATED DITCHES HAVE ESTABLISHED GROWTH OR STONE LINED DITCHES ARE COMPLETED.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

THE CONTRACTOR WILL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL DEVICES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105 OF THE 2006 VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SPECIAL PROVISION SECTION 652.

THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SEQUENCED IN THE "SPECIFIC GUIDELINES", OR AS DIRECTED BY THE RESIDENT ENGINEER. THE TYPE, SIZE, AND LOCATION OF ANY EROSION CONTROL DEVICES SHALL NOT BE CHANGED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE RESIDENT ENGINEER. ANY APPROVED CHANGES SHALL BE NOTED ON THE EROSION CONTROL PLANS AND DISCUSSED IN THE WEEKLY REPORT. HOWEVER, IN EMERGENCY SITUATIONS WHERE THE RESIDENT ENGINEER IS NOT IMMEDIATELY AVAILABLE, THE CONTRACTOR SHOULD REPAIR OR INSTALL THE EROSION CONTROLS AS THEY DEEM NECESSARY AND REPORT THE INCIDENT TO THE RESIDENT ENGINEER AS SOON AS PRACTICAL.

THE CONTRACTOR SHALL CONTROL ALL SEDIMENT-LADEN RUNOFF GENERATED WITHIN THE PROJECT SITE. CLEAN RUNOFF FROM OUTSIDE THE PROJECT SITE SHALL BE ROUTED THROUGH THE PROJECT USING DIVERSION BERMS, DIVERSION CHANNELS, AND TEMPORARY OR PERMANENT CULVERTS.

IN GENERAL, PRESERVE EXISTING VEGETATION, SHRUBS, AND TREES WHENEVER POSSIBLE.

THE PLAN PREPARER WILL BE AVAILABLE FOR ON-SITE CONSULTATIONS WITH THE RESIDENT ENGINEER WITHIN TWENTY-FOUR HOURS OF THE REQUEST.

ALL SEDIMENTS REMOVED FROM EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DEPOSITED IN AN UPLAND PORTION OF THE PROJECT SITE OR DEPOSITED OFF SITE IN THE DESIGNATED PROJECT WASTESITE.

ANY MATERIAL STOCKPILES, INCLUDING BUT NOT LIMITED TO, GRUBBING MATERIAL, SAND BORROW, EARTH BORROW, GRANULAR BORROW, TOPSOIL, AND ANY EXCAVATED WASTE PILES SHALL BE MULCHED AND SHALL ALSO HAVE SILT FENCE INSTALLED AROUND THE BASE OF THE STOCKPILE.

PROJECT NAME:	WEATHERSFIELD		
PROJECT NUMBER:	BHO 1442(29)		
FILE NAME:	/96j234/str/s96j234ecn1.xls	PLOT DATE:	2/22/2007
PROJECT LEADER:	W. SYMONDS	DRAWN BY:	G. SHANGRAW
DESIGNED BY:	T. FILLBACH	CHECKED BY:	T. SUMNER
EROSION CONTROL NARRATIVE		SHEET	18 OF 60

64C ~ COLTON FINE SANDY LOAM,
8 TO 15% SLOPES

63E ~ BERKSHIRE AND MONADNOCK
FINE SANDY LOAMS, 35 TO 60%
SLOPES, VERY STONEY

64B ~ COLTON FINE SANDY LOAM,
3 TO 8% SLOPES

ARCH

FLOOD PLAIN

HISTORIC DIST

570 580 590 600 610

EXISTING CONTOURS ARE SHOWN.
SEE CROSS SECTIONS FOR FINAL CONTOURS.

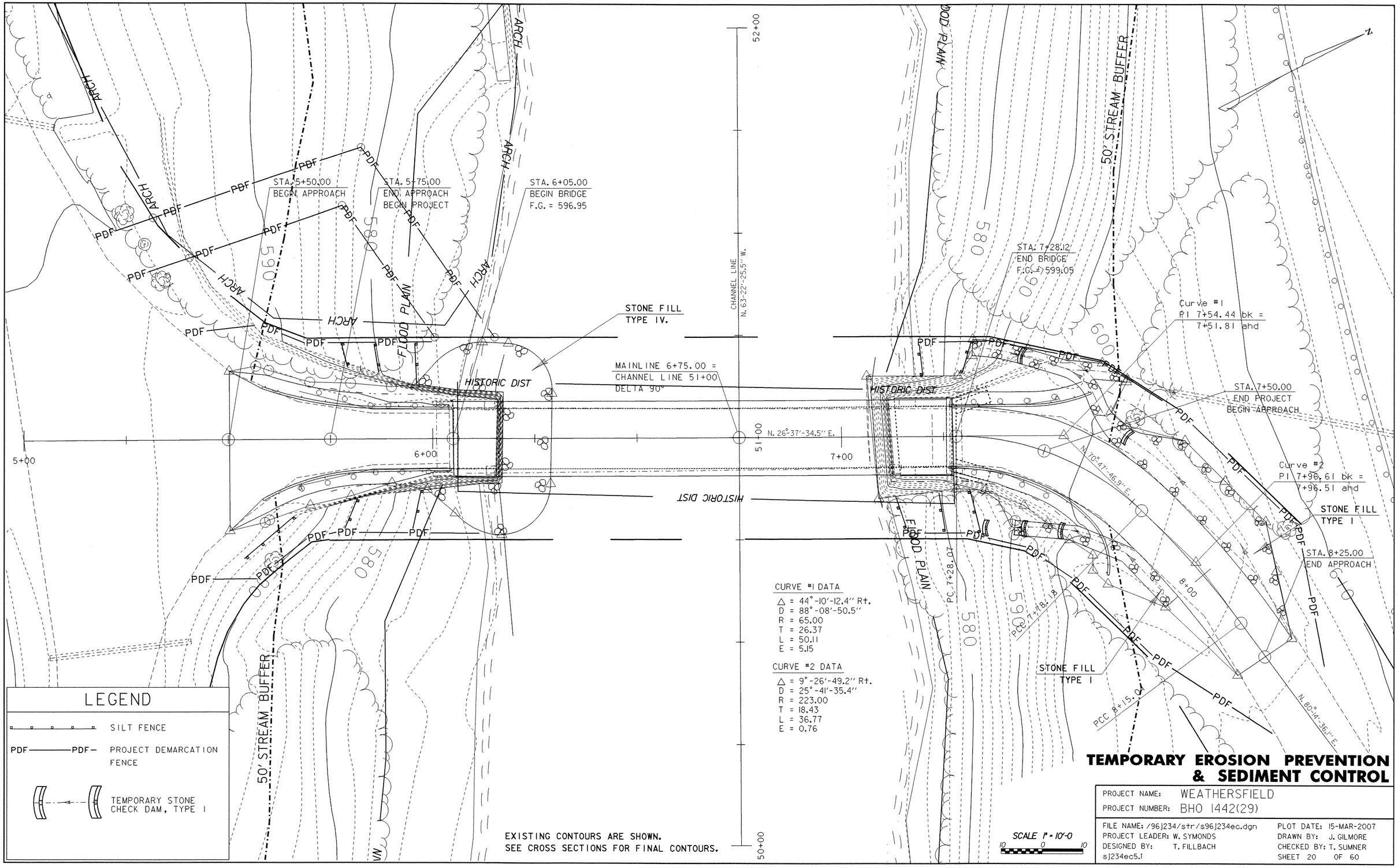
SCALE 1" = 10'-0
10 0 10

EROSION CONTROL
EXISTING CONDTIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234ec.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234ec4.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. GILMORE
CHECKED BY: T. SUMNER
SHEET 19 OF 60



LEGEND

- SILT FENCE
- PDF——PDF— PROJECT DEMARCATION FENCE
- TEMPORARY STONE CHECK DAM, TYPE I

CURVE #1 DATA

△ = 44°-10'-12.4" Rt.
D = 88°-08'-50.5"
R = 65.00
T = 26.37
L = 50.11
E = 5.15

CURVE #2 DATA

△ = 9°-26'-49.2" Rt.
D = 25°-41'-35.4"
R = 223.00
T = 18.43
L = 36.77
E = 0.76

EXISTING CONTOURS ARE SHOWN.
SEE CROSS SECTIONS FOR FINAL CONTOURS.

SCALE 1" = 10'-0

TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234ec.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234ec5.1

PLOT DATE: 15-MAR-2007
DRAWN BY: J. GILMORE
CHECKED BY: T. SUMNER
SHEET 20 OF 60

STA. 5+50.00
BEGIN APPROACH

STA. 5+75.00
END APPROACH
BEGIN PROJECT

STA. 6+05.00
BEGIN BRIDGE
F.G. = 596.95

STONE FILL
TYPE IV.

MAINLINE 6+75.00 =
CHANNEL LINE 51+00
DELTA 90°

CHANNEL LINE
N. 63°-22'-25.5" W.

STA. 7+28.12
END BRIDGE
F.G. = 599.05

Curve #1
PI 7+54.44 bk =
7+51.81 ahd

STA. 7+50.00
END PROJECT
BEGIN APPROACH

N. 26°-37'-34.5" E.

N. 70°-47'-46.9" E.

Curve #2
PI 7+96.61 bk =
7+96.51 ahd

STONE FILL
TYPE I

STA. 8+25.00
END APPROACH

PC 7+28.07

PCC 7+78.18

STONE FILL
TYPE I

PCC 8+15.04

N. 80°-14'-36.1" E.

5+00
6+00
7+00
8+00

50+00
51+00
52+00

ARCH
FLOOD PLAIN
HISTORIC DIST
50' STREAM BUFFER
590
580
600

CURVE #1 DATA

△ = 44°-10'-12.4" Rt.
D = 88°-08'-50.5"
R = 65.00
T = 26.37
L = 50.11
E = 5.15

CURVE #2 DATA

△ = 9°-26'-49.2" Rt.
D = 25°-41'-35.4"
R = 223.00
T = 18.43
L = 36.77
E = 0.76

DENOTED AREAS REQUIRING RE-VEGETATION. USE EROSION MATTING AND SEED, OR HAY MULCH AND SEED.

EXISTING CONTOURS ARE SHOWN.
SEE CROSS SECTIONS FOR FINAL CONTOURS.

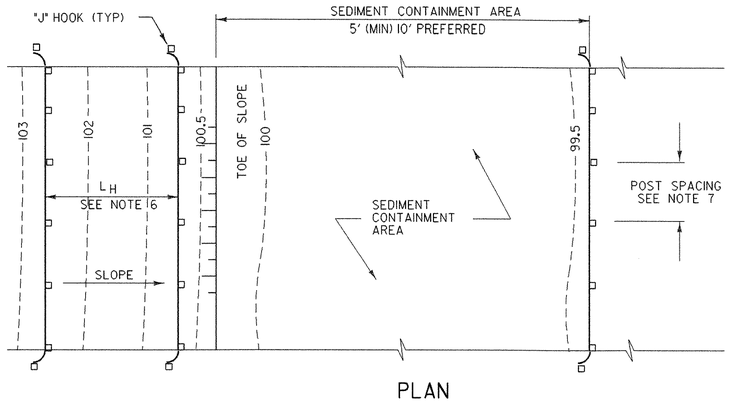
SCALE 1" = 10'-0
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EROSION CONTROL FINAL CONDITIONS

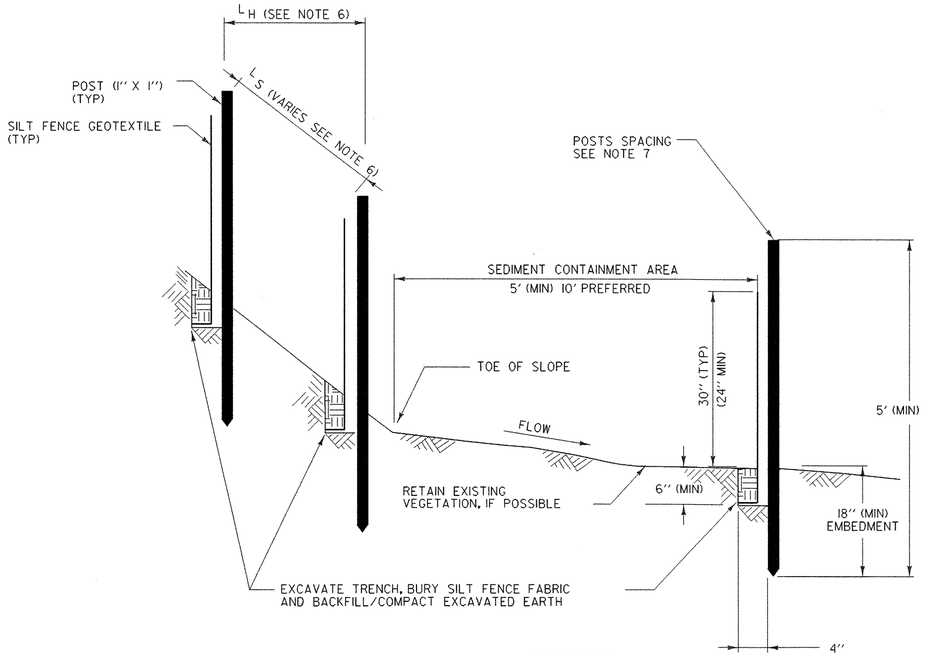
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234ec.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234ec6.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. GILMORE
CHECKED BY: T. SUMNER
SHEET 21 OF 60



PLAN



SECTION

SILT FENCE - TEMPORARY

NOT TO SCALE

SILT FENCE

APPLICATION NOTES:

A. THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.

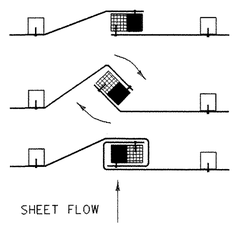
B. SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

GENERAL NOTES:

1. SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 5 FEET BEYOND TOE OF SLOPE, 10 FEET PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
2. SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.
3. ALL ENDS SHALL BE "J" HOOKED TO TRAP SEDIMENT.
4. IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
5. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6 INCHES BELOW GROUND, AND KEYED IN 4 INCHES. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
6. MAXIMUM DRAINAGE AREA TRIBUTARY TO 100 FEET OF SILT FENCE SHALL BE 0.25 ACRES.
7. THE FOLLOWING ARE MAXIMUM LENGTHS FOR SILT FENCE INSTALATIONS:

CONSTRUCTED SLOPE	SLOPE LENGTH (LS) FT	HORIZONTAL LENGTH (LH) FT
3H : 1V	80	75
4H : 1V	130	125
5H : 1V	200	200
> 5H : 1V	250	250

8. WHERE ELONGATION IS >50%, POST SPACING SHALL NOT EXCERED 4 FEET. WHERE ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6 FEET.
9. SILT FENCE SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
10. SILT FENCE SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED WASTE SITE.
11. SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.



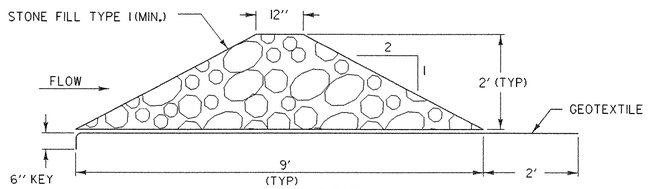
1. PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL
3. DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

SPLICING DETAIL

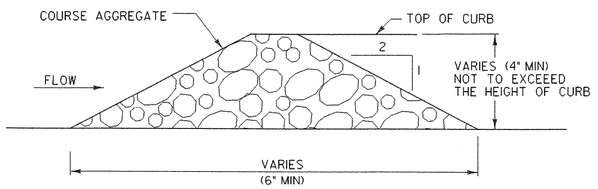
NOT TO SCALE

EPSC-1
SILT FENCE

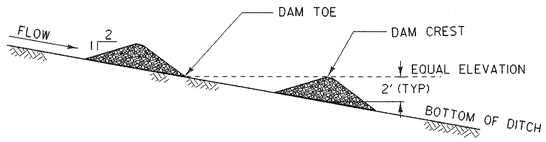
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /96j234/str/s96j234ecd.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: VARIOUS
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234silt.i	SHEET 22 OF 60



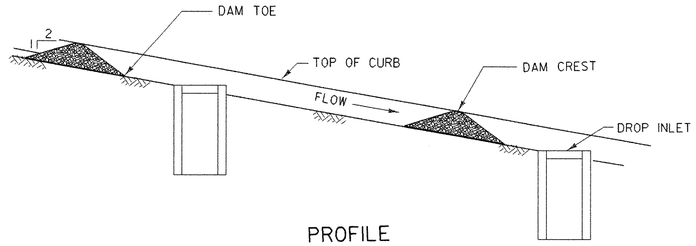
CROSS SECTION



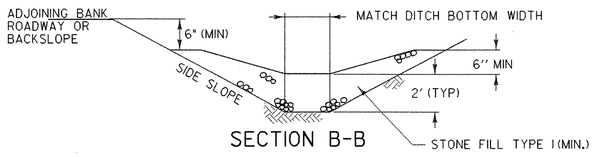
CROSS SECTION



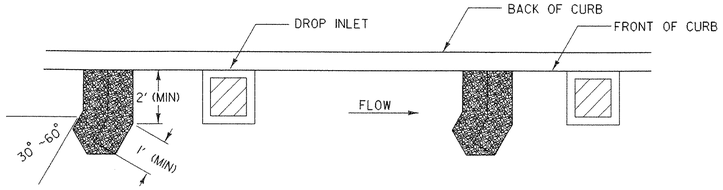
PROFILE



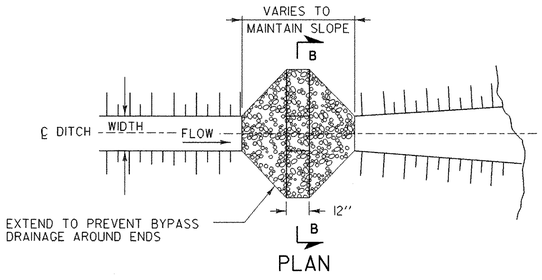
PROFILE



SECTION B-B



PLAN



PLAN

TEMPORARY STONE CHECK DAM
TYPE I

TEMPORARY STONE CHECK DAM
TYPE II

TEMPORARY CHECK DAMS

APPLICATION NOTES:

A. TEMPORARY CHECK DAM TYPE I IS USED FOR CHANNEL FLOW, CHECK DAM TYPE II IS USED FOR FLOW ALONG A CURB.

B. THE PRIMARY PURPOSE OF A TEMPORARY STONE CHECK DAM (TYPE I) IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY.

C. THE PRIMARY PURPOSE OF A TEMPORARY STONE CHECK DAM (TYPE II) IS TO LIMIT THE AMOUNT OF SEDIMENT ENTERING A CLOSED DRAINAGE SYSTEM WITH STORMWATER RUNOFF.

D. TEMPORARY CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE CHECK DAMS DUE TO DECREASED VELOCITY. CHECK DAMS ARE NOT INTENDED TO FILTER SEDIMENT FROM STORMWATER.

E. DETAILS SHOWN SHALL BE USED FOR TEMPORARY INSTALLATION ONLY.

F. USE OF PREFABRICATED TEMPORARY CHECK DAMS SHALL BE AS APPROVED IN THE EPSCP.

GENERAL NOTES:

1. GEOTEXTILE SHALL BE INSTALLED UNDER TEMPORARY STONE CHECK DAMS TYPE I. IT SHALL BE KEYED IN ON THE UPHILL END AND SHALL EXTEND 2 FEET BEYOND THE STONE ON THE DOWNHILL END.

2. STONE FOR TEMPORARY STONE CHECK DAMS SHALL MEET THE GRADATION REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS.

3. PREFABRICATED TEMPORARY CHECK DAMS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

4. TEMPORARY CHECK DAMS SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.

5. TEMPORARY CHECK DAMS SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE HEIGHT OR AS RECOMMENDED BY THE MANUFACTURER. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED WASTE SITE.

6. AT TIME OF REMOVAL OF THE TEMPORARY CHECK DAM, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.

STONE CHECK DAM PLACEMENT INTERVAL

DITCH SLOPE	PLACEMENT INTERVAL **
1%	200 FT
2 %	100 FT
3 %	65 FT
4 %	50 FT
5 %	40 FT
6 %	30 FT
8 %	25 FT
10 %	20 FT

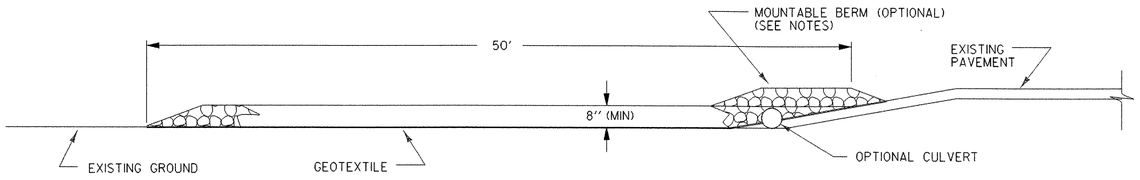
** BASED ON 2' TYPICAL HEIGHT

EPSC-2
TEMPORARY CHECK DAM

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234ecd.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234ckdams.i

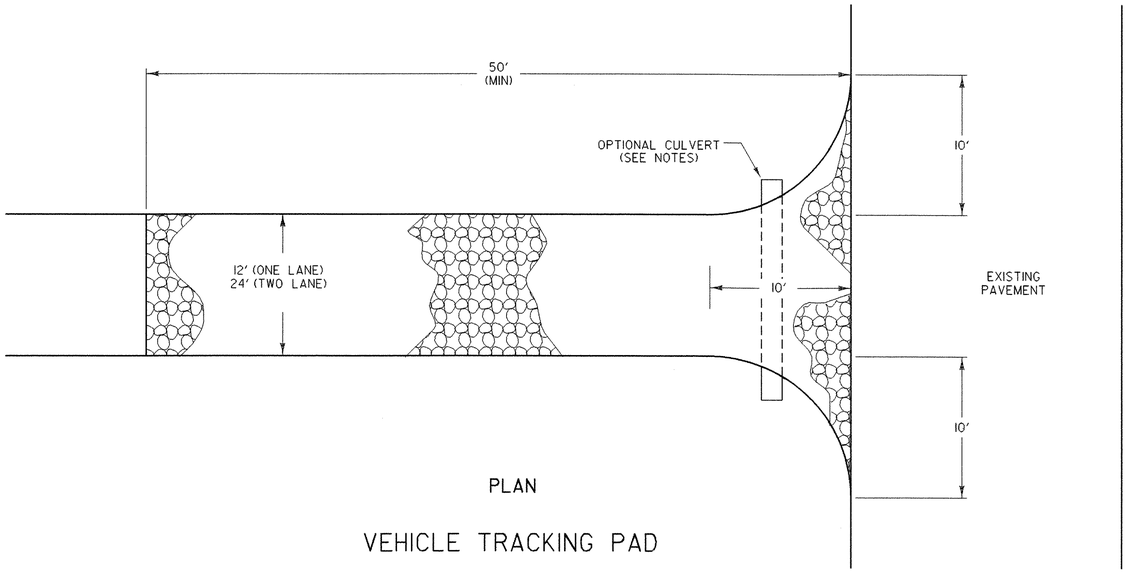
PLOT DATE: 15-MAR-2007
DRAWN BY: VARIOUS
CHECKED BY: T. SUMNER
SHEET 23 OF 60



PROFILE

VEHICLE TRACKING PAD

NOT TO SCALE



PLAN

VEHICLE TRACKING PAD

NOT TO SCALE

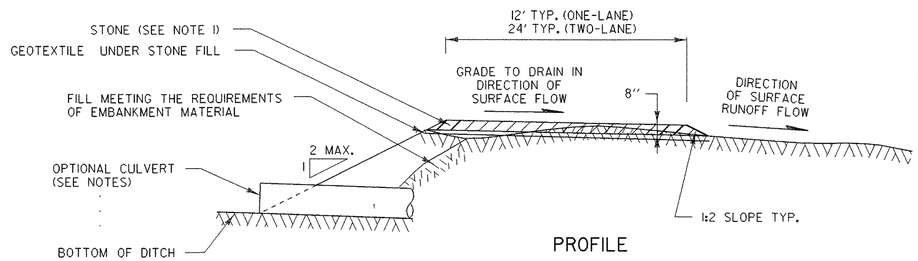
VEHICLE TRACKING PAD

APPLICATION NOTES:

A. THE PURPOSE OF A VEHICLE TRACKING PAD IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

GENERAL NOTES:

1. STONE SIZE - USE CLEAN STONE THAT MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS.
2. LENGTH - 50 FEET (MIN.)
3. THICKNESS - 8 INCHES (MIN)
4. WIDTH - 12 FEET (MIN)
5. GEOTEXTILE UNDER STONE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE AS DIRECTED BY THE ENGINEER. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOWS. ALTERNATIVE WAYS OF TRANSPORTING DITCH DRAINAGE ACROSS CONSTRUCTION ENTRANCES MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
8. WHEN A VEHICLE TRACKING PAD ALONE IS NOT CAPABLE OF PREVENTING TRACKING OF SEDIMENT ONTO THE ROAD SURFACE THE CONTRACTOR SHALL TAKE ADDITIONAL STEPS BEFORE VEHICLES LEAVE THE CONSTRUCTION AREA.
9. VEHICLE TRACKING PAD SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
10. VEHICLE TRACKING PAD SHALL BE MAINTAINED WHEN THE AGGREGATE BECOMES CLOGGED AND NO LONGER PREVENTS TRACKING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. ADDITIONAL AGGREGATE MAY BE ADDED ON TOP OF EXISTING AGGREGATE ONLY TO A POINT WHICH ALLOWS A SMOOTH TRANSITION BETWEEN THE ROAD SURFACE AND CONSTRUCTION AREA.
11. AT THE TIME OF REMOVAL OF THE VEHICLE TRACKING PAD, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.



PROFILE

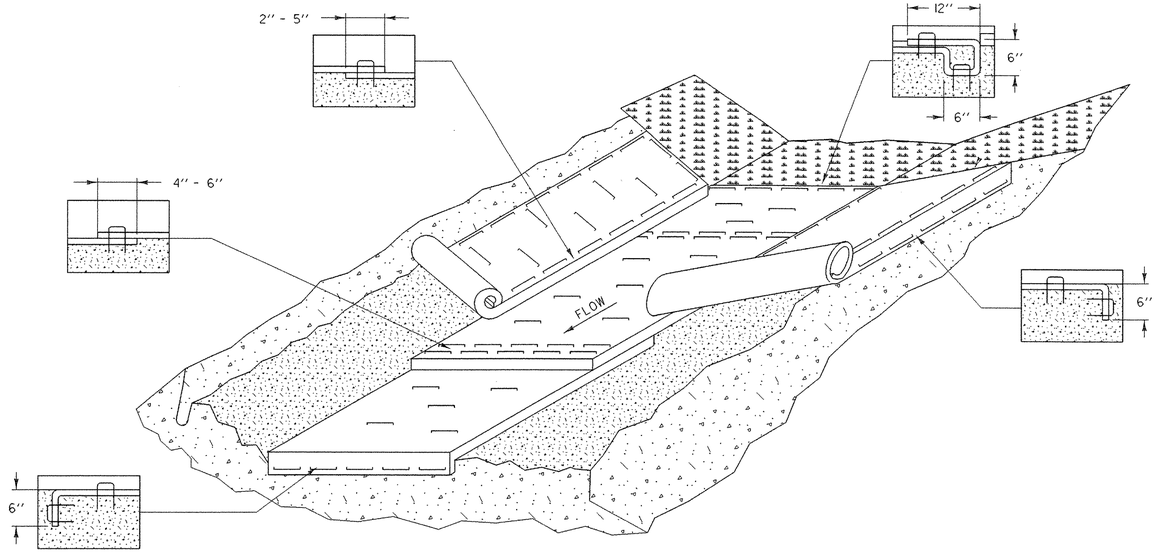
VEHICLE TRACKING PAD

NOT TO SCALE

EPSC-4
VEHICLE TRACKING PAD

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234ecd.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: VARIOUS
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234vtpads.1	SHEET 24 OF 60



EROSION MATTING FOR DITCHES

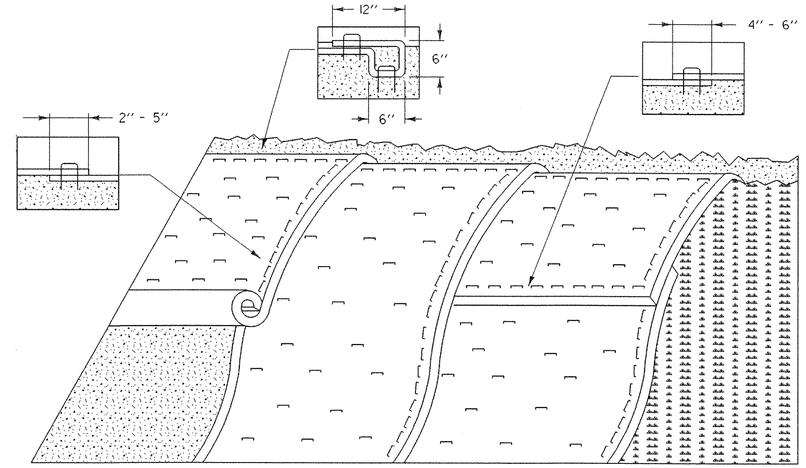
APPLICATION NOTES:

A. THE PURPOSE OF LINING THE DITCH WITH EROSION MATTING IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION AT LOW VELOCITIES.

B. TYPE OF EROSION MATTING TO BE USED SHOULD BE BASED ON FACTORS SPECIFIC TO EACH APPLICATION. SEE SPECIFICATIONS AND PRODUCT RECOMMENDATIONS FOR SUITABILITY.

GENERAL NOTES:

1. WATER MAY NEED TO BE DIVERTED TO ALLOW PROPER MATTING INSTALLATION.
2. GRADE AND SMOOTH CHANNEL TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
3. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
4. INSTALL MATTING IN THE CENTER OF THE CHANNEL, IN THE DIRECTION OF THE WATER FLOW.
5. INSTALL MATTING ON THE SIDE SLOPES OF THE CHANNEL, OVERLAPPING THE CENTER MAT.
6. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INTALLATION INSTRUCTIONS.
7. EROSION MATTING SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
8. EROSION MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.



EROSION MATTING FOR SLOPES

APPLICATION NOTES:

A. THE PURPOSE OF EROSION MATTING ON SLOPES IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION

B. EROSION CONTROL MATTING SHALL BE USED FOR THE FOLLOWING REASONS:

- SLOPES > 3H:1V
- AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
- WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

GENERAL NOTES:

1. GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
2. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
3. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INTALLATION INSTRUCTIONS.
4. UNROLL EROSION MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
5. OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
6. OVERLAP ADJACENT MATTING AS SHOWN.
7. CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
8. EROSION MATTING SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
9. EROSION MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.

EPSC-5
EROSION MATTING FOR DITCHES & SLOPES

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /96j234/str/s96j234ecd.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: VARIOUS
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234slopes.i	SHEET 25 OF 60

STA. 5+50.00
BEGIN APPROACH

STA. 5+75.00
END APPROACH
BEGIN PROJECT

STA. ~~6+05.00~~ 6+04
BEGIN BRIDGE
F.G. = 596.95

BLACK RIVER

CHANNEL LINE
N. 83°-22'-25.5" W.

MAINLINE 6+75.00 =
CHANNEL LINE 51+00
DELTA 90°

STONE FILL
TYPE IV

I-2.5

6+00

7+00

51+00

N. 26°-37'-34.5" E.

STA. ~~7+28.12~~ 7+27.12
END BRIDGE
F.G. = 599.05

PC 7+28.07

Curve #1
PI 7+54.44 bk =
7+51.81 ahd

STA. 7+50.00
END PROJECT
BEGIN APPROACH

STONE FILL
TYPE I

Curve #2
PI 7+96.61 bk =
7+96.51 ahd

N. 70°-47'-46.9" E.

STA. 8+25.00
END APPROACH

8'-00

PCC 7+78.18

STONE FILL
TYPE I

PCC 8+15.04

PLAN

SCALE 1" = 10'-0

CURVE #1 DATA
△ = 44°-10'-12.4" Rt.
D = 88°-08'-50.5"
R = 65.00
T = 26.37
L = 50.11
E = 5.15

CURVE #2 DATA

131'-0" OVERALL LENGTH

BEGIN BRIDGE TO END BRIDGE (BACK OF BACKWALL TO BACK OF BACKWALL) = 123'-0"

BOX BEAM GUARDRAIL, WEATHERING
LEFT AND RIGHT (TYP.)

SEE SHEET 48 FOR
GUARDRAIL LAYOUT

Q_{100} = 584.90

EXISTING GROUND

STONE FILL,
TYPE IV

ELEVATION

SCALE 1" = 10'-0

PLAN AND ELEVATION

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96|234/str/s96|234pe.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FALLBACH
s|234pe.1

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 29 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

GENERAL NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006 AND ITS REVISIONS AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION DATED 2002 AND ITS LATEST REVISIONS. WOOD CONSTRUCTION SHALL ALSO CONFORM TO THE NATIONAL DESIGN SPECIFICATION (NDS) AND SUPPLEMENT FOR WOOD CONSTRUCTION AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION MANUAL (AITC).

2. DESIGN OF THE REHABILITATED STRUCTURE IS FOR A 12,500 POUND TWO AXLE TRUCK.

3. BRIDGE 66 WILL BE CLOSED TO ALL PEDESTRIAN AND VEHICULAR TRAFFIC DURING CONSTRUCTION. OFF PROJECT DETOUR SIGNING SHALL BE THE RESPONSIBILITY OF THE TOWN OF WEATHERSFIELD.

4. THE COSTS OF INSTALLING, MAINTAINING AND REMOVING ALL TEMPORARY CONSTRUCTION SIGNS AND BARRICADES WILL BE PAID FOR UNDER ITEM 641.10 TRAFFIC CONTROL.

5. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT UNLESS OTHERWISE NOTED.

6. ANY EXISTING SIGNS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE TOWN OF WEATHERSFIELD. THESE SIGNS SHALL BE STOCK PILED ON THE PROJECT AND THEN LOADED ON A TRUCK SUPPLIED BY THE TOWN. CONTACT ROAD FOREMAN WESTLEY HAZELTINE AT (802) 263-5272.

7. THE CONTRACTOR SHALL AVOID UNNECESSARY DISASSEMBLY OF THE TOWN LATTICE TRUSSES. ONLY THE JOINTS THAT MUST BE DISASSEMBLED TO EFFECT REPAIRS SHALL BE DISASSEMBLED. AT NO POINT DURING CONSTRUCTION SHALL THE TRUSSES BE DISASSEMBLED TO THE EXTENT THAT THE EXISTING GEOMETRY AND MEMBER LOCATION IS LOST. THE COST OF ANY WORK REQUIRED TO RESTORE EXISTING GEOMETRY OR LOCATION OF INDIVIDUAL MEMBERS DUE TO DISASSEMBLY OF THE BRIDGE WILL BE INCIDENTAL TO THE ITEM "PARTIAL REMOVAL OF STRUCTURE".

8. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE CHECKED IN THE FIELD PRIOR TO COMMENCING THE WORK. ACTUAL WORK WILL MATCH FIELD CONDITIONS.

9. IF THE CONTRACTOR REHABILITATES THE BRIDGE IN ITS CURRENT LOCATION BY JACKING AND SHORING WITH A TEMPORARY FALSEWORK SYSTEM, THE CONTRACTOR SHALL SUBMIT PLANS AND DESIGN CALCULATIONS FOR THE PROPOSED TEMPORARY STRUCTURE TO THE ENGINEER FOR APPROVAL. APPROVAL IS REQUIRED BEFORE COMMENCEMENT OF WORK. THIS WORK SHALL BE PAID UNDER ITEM 502.10 SHORING SUPERSTRUCTURE.

10. IF THE CONTRACTOR MOVES THE BRIDGE FROM ITS CURRENT LOCATION TO A STAGING AREA FOR REHABILITATING, ALL COSTS INVOLVED IN MOVING TO AND SHORING IN A TEMPORARY LOCATION AND REINSTALLING IN ITS FINAL LOCATION WILL BE CONSIDERED INCIDENTAL TO ITEM 502.10 SHORING SUPERSTRUCTURE. THE CONTRACTOR SHALL SUBMIT PLANS AND SEQUENCE OF WORK FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

11. THE EXISTING COVERED BRIDGE SHALL BE STRAIGHTENED AND REALIGNED SO AS NOT TO BE RACKED OR TIPPING. A POSITIVE RESIDUAL CAMBER IS DESIRED ONCE THE BRIDGE IS COMPLETED UP TO A MAXIMUM CAMBER OF THREE INCHES.
THIS WORK SHALL BE INCIDENTAL TO ITEM 502.10 SHORING SUPERSTRUCTURE.

12. ALL BRIDGE MEMBERS AND CONNECTORS NOT PREDETERMINED FOR REPLACEMENT AS SHOWN IN THE PLANS SHALL BE CHECKED IN THE FIELD FOR DAMAGE AND DECAY. IF ADDITIONAL MEMBERS ARE TARGETED TO BE REPLACED BY THE ENGINEER, THE PROJECT MANAGER AND HISTORIC PRESERVATION OFFICER WILL REVIEW THE ADDITIONAL CHANGES, PRIOR TO THE WORK BEING PERFORMED. THE ESTIMATED QUANTITIES FOR THE WOOD ITEMS HAVE BEEN INCREASED BY 10% TO REFLECT THE POSSIBILITY OF ADDITIONAL MEMBERS NEEDING TO BE REPLACED.

13. THE ENTRY AND EXIT PORTALS OF THE COVERED BRIDGE WILL BE PHOTOGRAPHED, MEASURED AND DETAILED. ALL PORTAL FRAMING, ROOF RETURNS, CORNICES AND OTHER ORNAMENTAL DETAIL WILL BE REPLICATED. COST OF THIS WORK WILL BE INCIDENTAL TO ITEM 522.30 "NONSTRUCTURAL LUMBER, UNTREATED".

14. NOT USED

15. COST OF MATERIALS AND INSTALLATION OF A NEW MATTE BLACK STANDING SEAM METAL ROOF SHALL BE PAID FOR UNDER ITEM 900.670 SPECIAL PROVISION (METAL ROOFING)(FPQ).

EARTHWORK AND RELATED ITEMS

16. CARE SHALL BE TAKEN WHEN EXCAVATING THE TOP PORTIONS OF BOTH ABUTMENTS AND AROUND THE BASE OF ABUTMENT ONE DURING PLACEMENT OF STONE FILL. ANY DAMAGE OR MOVEMENT OF THE EXISTING ABUTMENTS TO BE RETAINED WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

17. ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING WOOD DECK, FLOOR BEAMS, LOWER CROSS BRACING, LOWER BOTTOM CHORD, BOLSTER BEAMS, BEARING BLOCKS, SIDING, SIDING NAILERS, ROOF RIDGE BEAM, ROOF SHEATHING, METAL ROOF, UNDERLYING SHINGLES AND SELECTED MEMBERS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR REPLACEMENT. THESE INCLUDE COMPONENTS OF THE TIE BEAMS, UPPER CROSS BRACING, TOP CHORD, KNEE BRACES, LATTICES AND UPPER BOTTOM CHORD. "PARTIAL REMOVAL OF STRUCTURE" SHALL ALSO INCLUDE THE SALVAGE, STOCKPILING AND REINSTALLING OF BRIDGE COMPONENTS THAT ARE TO BE RETAINED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL AND NON-STRUCTURAL LUMBER AND TIMBER

18. ALL WOOD SIZES SHOWN ON THE PLANS SHALL BE VERIFIED IN THE FIELD PRIOR TO INSTALLATION OF NEW MEMBERS. MEMBERS WILL MATCH THE EXISTING SIZE OF THE MEMBER IT IS REPLACING. ALL COSTS OF CUTTING AND PLANING OF NOMINAL WOOD SIZES TO MATCH EXISTING SIZES WILL BE INCIDENTAL TO THE APPROPRIATE LUMBER AND TIMBER PAY ITEM.

19. ALL EXISTING WOOD TRUNNELS THAT ARE REMOVED IN THE REHABILITATION PROCESS ARE TO BE REPLACED WITH NEW WOOD TRUNNELS. EXISTING TRUNNELS THAT HAVE DAMAGE OR DECAY WILL ALSO BE REPLACED WITH NEW WOOD TRUNNELS AS DEEMED NECESSARY BY THE ENGINEER. THE MOISTURE CONTENT OF THE TRUNNELS WILL NOT EXCEED 8 PERCENT WHEN INSTALLED. TRUNNELS MAY BE DIPPED IN BOILED LINSEED OIL PRIOR TO DRIVING.

20. ALL SIDING, NAILERS AND DECK EDGE BOARDS WILL BE ATTACHED WITH 2 INCH TO 3 INCH LONG NO. 8 GALVANIZED SCREWS.

21. THE NEW ROOF SHEATHING SHALL HAVE UNSAWN NARROW EDGES IN ORDER TO REPLICATE THE EXISTING ROOF SHEATHING. SEE SHEET 31.

22. ITEM 522.20 "STRUCTURAL LUMBER AND TIMBER, UNTREATED" SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
    - -RIDGE BEAM, ROOF SHEATHING, RAFTERS, TIE BEAM, TIE BEAM BLOCKING, UPPER LATERAL CROSS BRACING, SOFFIT BOARDS, UPPER AND LOWER TOP CHORD, PORTAL FRAMING, KNEE BRACES AND LATTICES (SPRUCE-PINE-FIR, GRADE NO. 1)
    - -TRUNNELS, SHIMS AND LOWER CROSS BRACING DOWELS (WHITE OAK OR WHITE ASH, FREE OF DEFECTS AND KNOTS)

23. ITEM 522.25 "STRUCTURAL LUMBER AND TIMBER, TREATED" SHALL BE TREATED WITH PRESERVATION TREATMENT TYPE III AND SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
    - -UPPER BOTTOM CHORD, DECK EDGE BOARDS, FLOOR BEAM BLOCKING, LOWER LATERAL CROSS BRACING AND CONNECTION BLOCKING (SPRUCE-PINE-FIR, GRADE NO. 1)
    - -CURBS, CURB BLOCKING, LOWER BOTTOM CHORD, FLOOR BEAMS, BEDDING TIMBERS, BOLSTER BEAMS AND BOLSTER BEAM BLOCKING (SOUTHERN YELLOW PINE, GRADE NO. 1)

24. ITEM 522.30 "NONSTRUCTURAL LUMBER, UNTREATED" SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
    - -SIDING, SIDING NAILERS, ROOF RETURNS AND CORNICES (EASTERN HEMLOCK, GRADE NO. 2)

25. ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER" SHALL BE TREATED WITH PRESERVATION TREATMENT TYPE III PRIOR TO GLUING. THE DECK PANELS SHALL BE SOUTHERN YELLOW PINE WITH A STRESS CLASS OF 16F-1.3E SP/SP THAT MEETS A MINIMUM BENDING STRESS ABOUT THE "Y-Y" AXIS (Fby) OF 1450 PSI.

26. TO HELP FACILITATE CONNECTING THE GLUED LAMINATED DECK PANELS TO THE FLOOR BEAM, THE LEAD HOLES FOR THE LAG SCREWS WILL BE DRILLED IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT THE END PANEL CONNECTION JOINTS WILL OCCUR AT THE CENTERLINE OF THE FLOOR BEAMS.

27. THE DECK PANEL END JOINTS WILL BE STAGGERED AS SHOWN IN THE PLANS. THE ALUMINUM DECK BRACKETS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS. THE LAG SCREWS CONNECTING THE DECK TO THE FLOOR BEAMS SHALL BE RECESSED INTO THE DECK AND PLUGGED AND SEALED. COST AND MATERIALS FOR THIS WORK SHALL BE INCIDENTAL TO ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER".

28. TRUNNEL HOLES THAT ARE EXPOSED DURING REQUIRED DISASSEMBLY IN EXISTING MEMBERS THAT ARE TO BE RETAINED, WILL BE PLUGGED AND DRILLED IF; THE EDGE DISTANCE BETWEEN THE HOLE AND EDGE OF THE MEMBER IS LESS THAN ONE INCH OR THE EDGE DISTANCES BETWEEN HOLES IS LESS THAN 2 1/2 INCHES. THE HOLES WILL BE PLUGGED WITH WHITE OAK OR WHITE ASH USING A POLYURETHANE WOOD GLUE. PAYMENT FOR MATERIALS AND WORK WILL BE INCIDENTAL TO THE APPROPRIATE WOOD ITEM THAT IS BEING CONNECTED. SEE TRUNNEL DETAILS ON SHEET 32 FOR NEW HOLE LOCATIONS.

29. NOT USED

CONCRETE AND REINFORCING STEEL

30. ALL REINFORCING STEEL WILL BE EPOXY COATED.

31. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
    SPACING +/- 1"
    CLEARANCE +/- 1/4"

32. ALL CONCRETE WILL BE "CONCRETE, HIGH PERFORMANCE CLASS B".

33. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1"

34. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL NEW AND EXISTING CONCRETE SURFACES.

35. CONSTRUCTION JOINTS WILL HAVE A MECHANICALLY ROUGHENED SURFACE TO AN AMPLITUDE OF ONE-HALF INCH.

36. ITEMS 580.14 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" AND 580.15 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III" SHALL BE USED TO REPAIR THE CONCRETE FACING OF ABUTMENT TWO. CARE SHALL BE TAKEN TO NOT OVER EXCAVATE WHEN REMOVING UNSOUND CONCRETE AND TO NOT DISTURB THE LAID UP STONE ABUTMENT BEHIND THE FACING. ANY DAMAGE OR MOVEMENT OF THE EXISTING ABUTMENT WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.
THE CONTRACTOR MAY PROPOSE ALTERNATE METHODS OF REPAIR AS SPECIFIED IN SUBSECTION 580.06(c)OF THE 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION. SURFACES TO BE REPAIRED OR OVERLAID SHALL BE CHIPPED BACK TO A DEPTH AS DIRECTED BY THE RESIDENT ENGINEER USING APPROVED HAND OR MECHANICAL METHODS.

STRUCTURAL STEEL AND BEARINGS

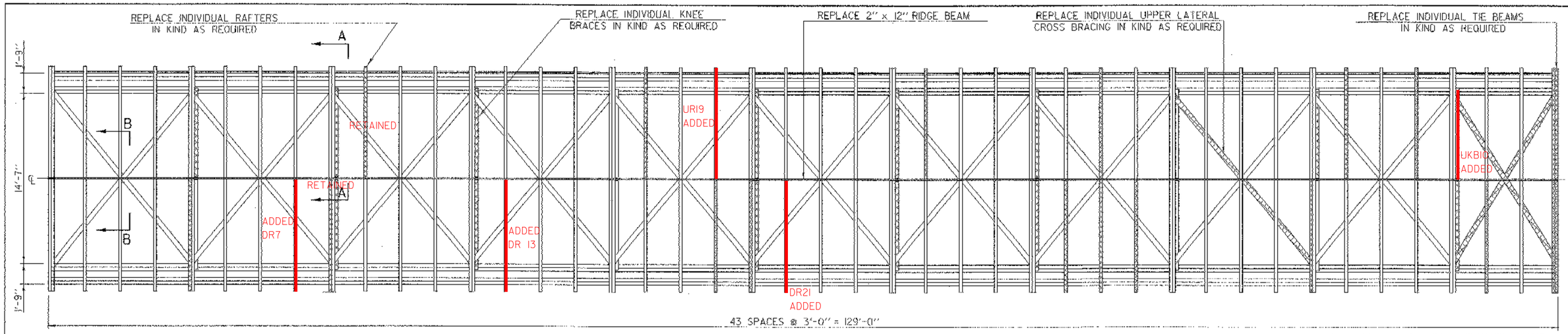
37. ITEM 506.60 "STRUCTURAL STEEL" WILL BE USED TO PAY FOR THE TIE RODS AND ASSOCIATED TURNBUCKLES, NUTS AND OGEE WASHERS. THE RODS, NUTS AND WASHERS FOR THE TIE ROD ASSEMBLIES SHALL MEET ASTM F844. THE TURNBUCKLES SHALL MEET MINIMUM STRENGTH SPECIFICATIONS FOR TURNBUCKLES IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL (AISC).

38. NOT USED

39. ALL HARDWARE NOT PAID FOR ITEM 506.60 "STRUCTURAL STEEL" AND ITEM 900.620 "SPECIAL PROVISION (BEARING DEVICE ASSEMBLY COVERED BRIDGE) SHALL BE INCIDENTAL TO THE ITEM TO WHICH IT IS ATTACHED.

40. ALL STRUCTURAL STEEL AND HARDWARE SHALL BE GALVANIZED

PROJECT NAME:	WEATHERSFIELD		
PROJECT NUMBER:	BHO 1442(29)		
FILE NAME:	s96j234gen.xls	PLOT DATE:	3/14/2007
PROJECT LEADER:	W. SYMONDS	DRAWN BY:	R.PELLETT
DESIGNED BY:	T. SUMNER	CHECKED BY:	J. LACROIX
GENERAL NOTES		SHEET	30 OF 60



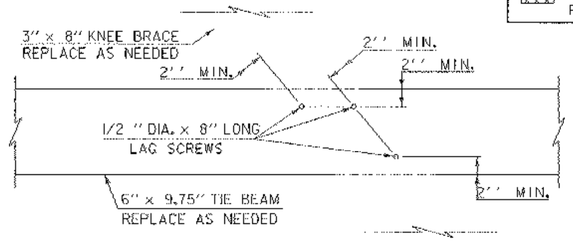
CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

ROOF FRAMING PLAN

SCALE 1/4" = 1'-0

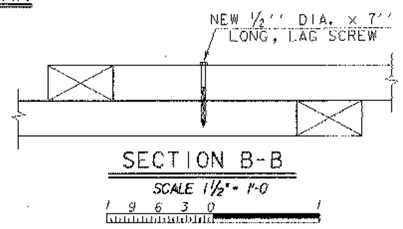
STATIONING

RAFTERS THAT INTERSECT WITH TIE BEAMS ARE 4" x 6" ALL OTHERS ARE 3" x 6"



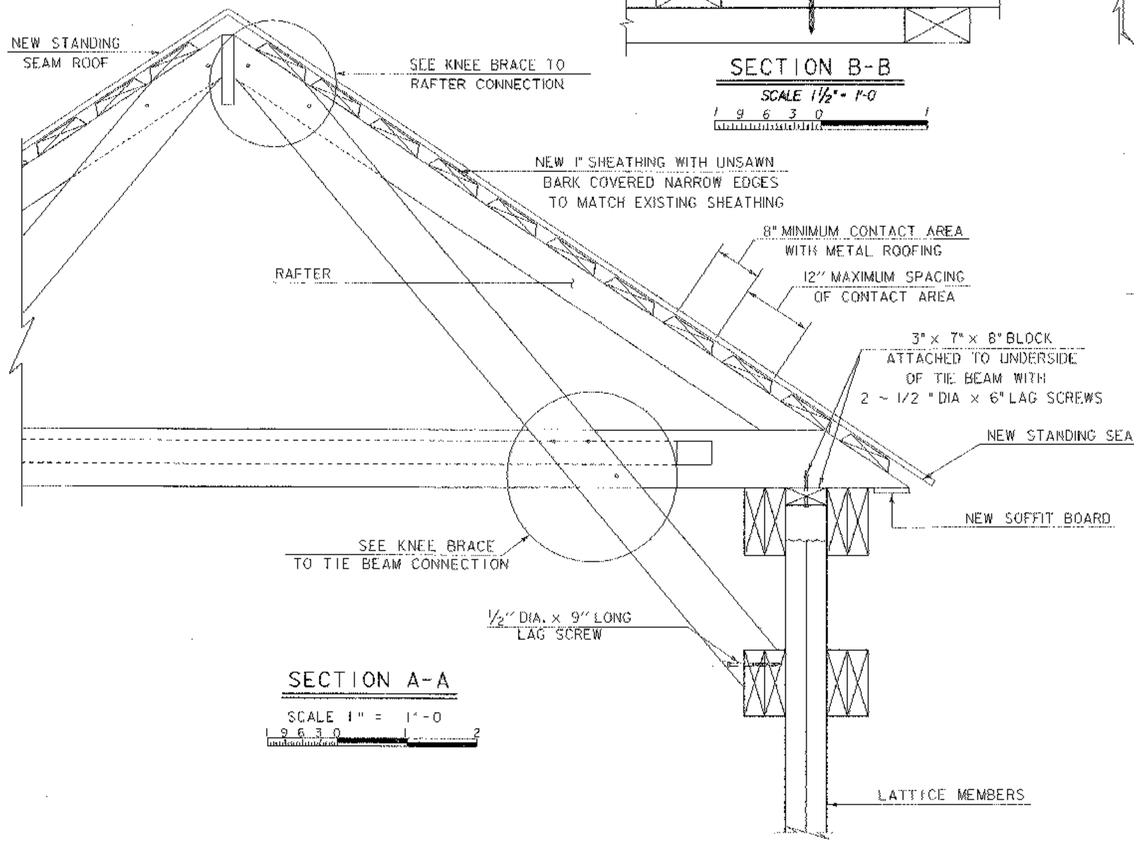
KNEE BRACE TO TIE BEAM CONNECTION

SCALE 1½" = 1'-0



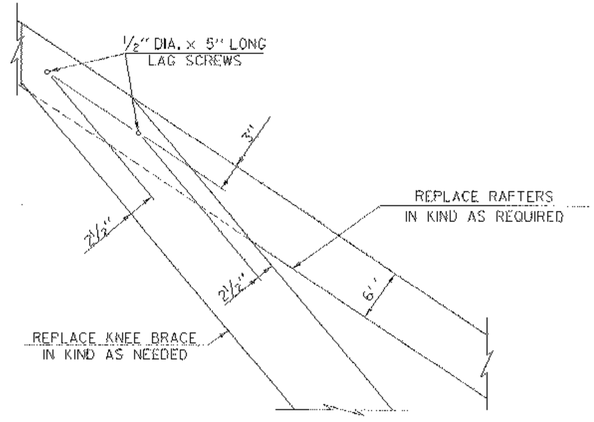
SECTION B-B

SCALE 1½" = 1'-0



SECTION A-A

SCALE 1" = 1'-0



KNEE BRACE TO RAFTER CONNECTION

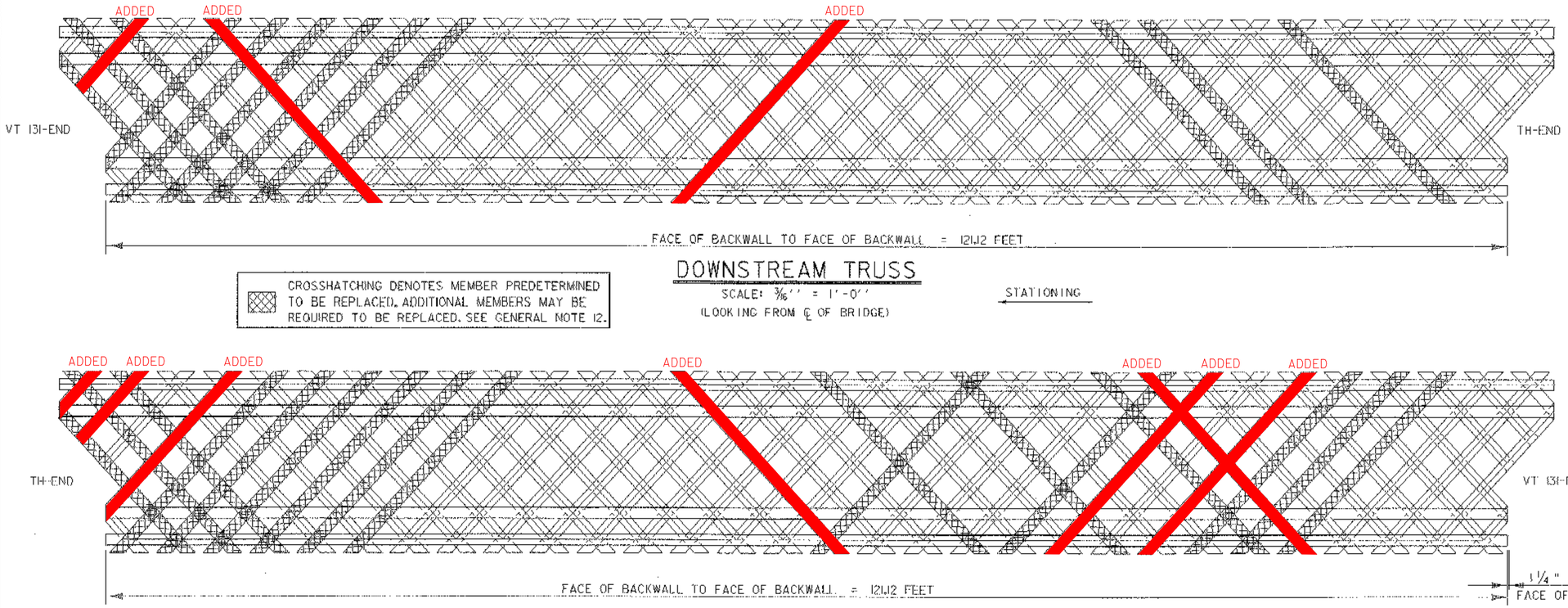
SCALE 1½" = 1'-0

FOR ESTIMATING PURPOSES, THE FOLLOWING MEMBERS WERE INCLUDED IN THE ESTIMATED LUMBER QUANTITIES:

- NEW RIDGE BEAM
- NEW ROOF SHEATHING
- 17% RAFTERS
- 8% TIE BEAMS
- 13% UPPER LATERAL CROSS BRACES
- 65% KNEE BRACES
- 6% OF THE UPPER TOP CHORD
- 13% OF THE LOWER TOP CHORD
- 26% LATTICE MEMBERS
- 720 TRUNNELS
- 22% OF THE UPPER BOTTOM CHORD
- NEW LOWER BOTTOM CHORD
- NEW TIE BEAM BLOCKING
- NEW LOWER CROSS BRACING
- NEW BOLSTER BEAMS, BLOCKING AND BEDDING TIMBERS
- NEW PORTAL FRAME AND SIDING
- NEW FASCIA AND SOFFIT BOARD AND NAILERS
- NEW ROOF RETURNS AND CORNICES
- NEW FLOOR BEAMS AND BLOCKING
- NEW GLULAM DECK
- NEW DECK EDGE BOARDS
- NEW CURBS AND CURB BLOCKING

ROOF FRAMING PLAN

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /9&1234/str/s9&1234rfp.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234rfp.i	SHEET 31 OF 60



CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

DOWNSTREAM TRUSS

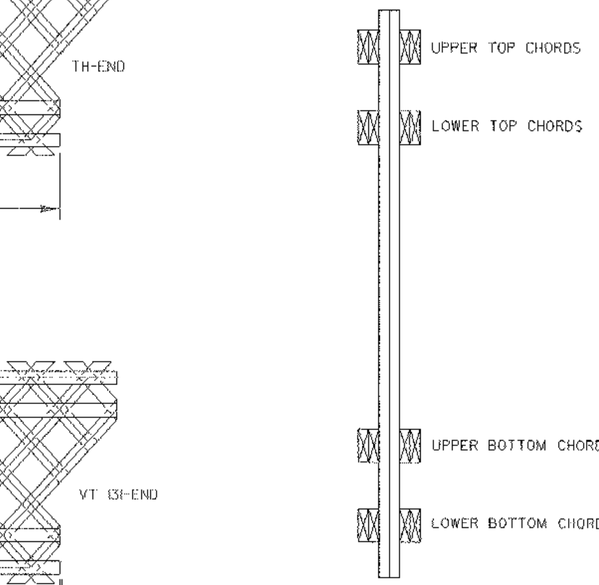
SCALE: 3/16" = 1'-0"
(LOOKING FROM ℄ OF BRIDGE)

STATIONING

UPSTREAM TRUSS

SCALE: 3/16" = 1'-0"
(LOOKING FROM ℄ OF BRIDGE)

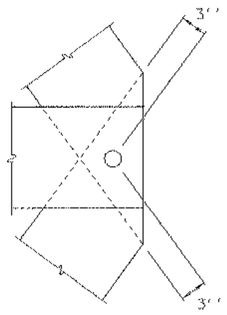
STATIONING



TYPICAL SECTION

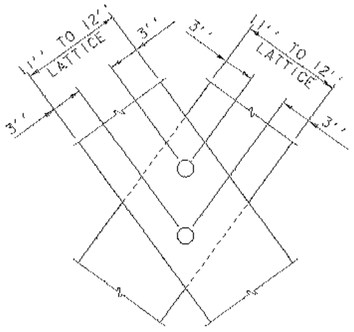
NOT TO SCALE

1 1/4" FACE OF BACKWALL TO END OF LOWER CHORD (TYP)



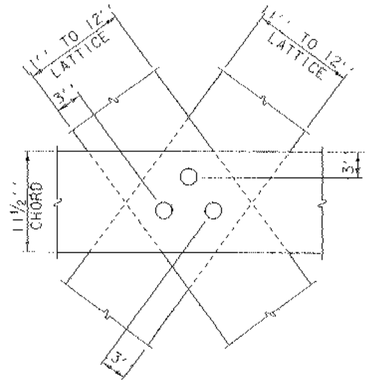
LATTICE TO CHORD END CONNECTION (ONE TRUNNEL)

SCALE 1 1/2" = 1'-0"



LATTICE TO LATTICE 2 TRUNNEL CONNECTION

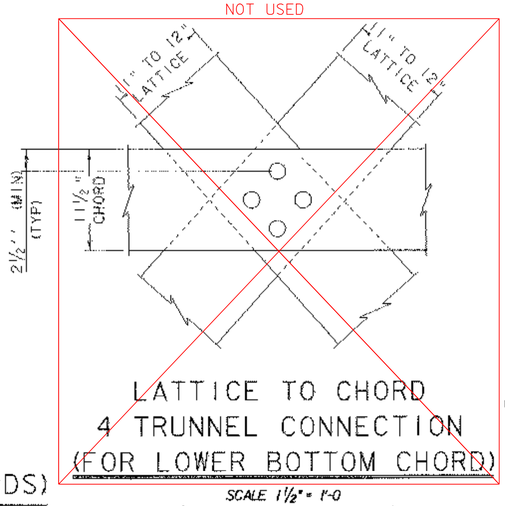
SCALE 1 1/2" = 1'-0"



LATTICE TO CHORD 3 TRUNNEL CONNECTION (FOR TOP AND UPPER BOTTOM CHORDS)

SCALE 1 1/2" = 1'-0"

NOT USED



LATTICE TO CHORD 4 TRUNNEL CONNECTION (FOR LOWER BOTTOM CHORD)

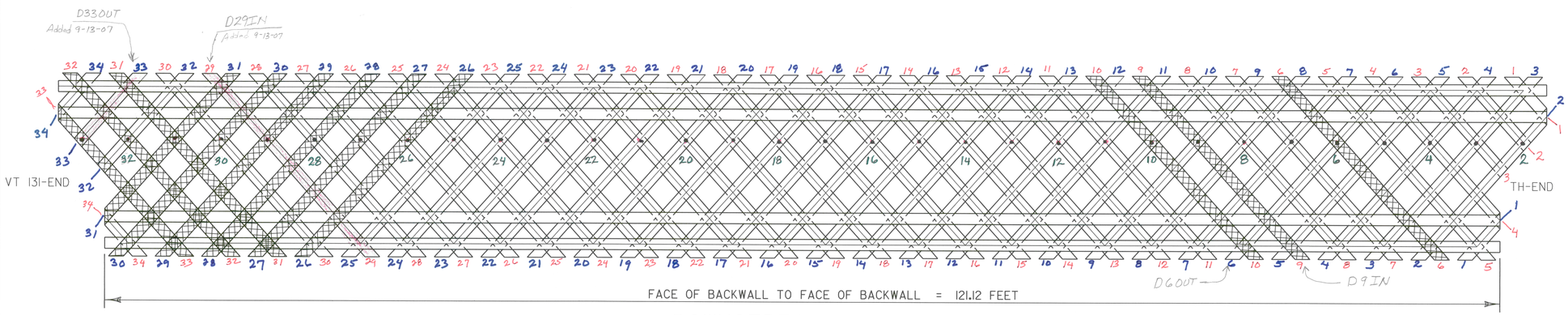
SCALE 1 1/2" = 1'-0"

NOTES FOR NEW TRUNNEL CONNECTIONS:

1. HOLE POSITION IN GROUP TO BE AS INDICATED.
2. MINIMUM EDGE DISTANCE IN 4 TRUNNEL CHORD CONNECTION = 1 1/2".
   MINIMUM EDGE DISTANCE IN 3 TRUNNEL CHORD CONNECTION = 2".
   MINIMUM EDGE DISTANCE IN LATTICE CONNECTION = 2".
   MINIMUM END DISTANCE = 13"
   MINIMUM EDGE DISTANCE BETWEEN HOLES = 2 1/2"
3. A MINIMUM OF 1/3 TRUNNELS IN EACH CONNECTION TO BE DRIVEN FROM OPPOSITE SIDES.
4. TRUNNELS WILL BE 2" DIAMETER WHITE OAK OR WHITE ASH

LATTICE TRUSS ELEVATIONS & TRUNNEL CONNECTION DETAILS

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /96j234/str/s96j234rfp.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234ifd.i	SHEET 32 OF 60

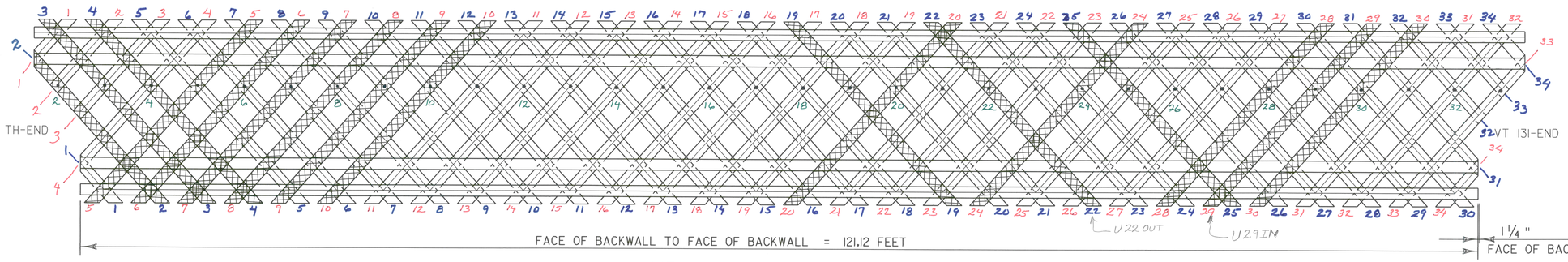


CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

DOWNSTREAM TRUSS

SCALE: 3/16'' = 1'-0''
(LOOKING FROM ℄ OF BRIDGE)

STATIONING



UPSTREAM TRUSS

SCALE: 3/16'' = 1'-0''
(LOOKING FROM ℄ OF BRIDGE)

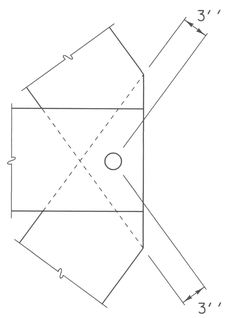
STATIONING

XX = INSIDE DIAGONALS
XX = OUTSIDE DIAGONALS
U = UPSTREAM
D = DOWNSTREAM

TYPICAL SECTION

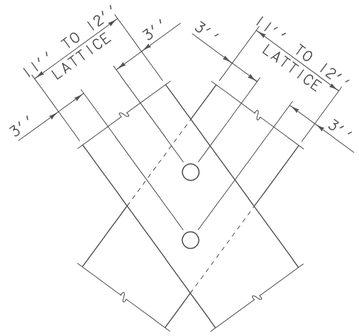
NOT TO SCALE

1 1/4" FACE OF BACKWALL TO END OF LOWER CHORD (TYP)



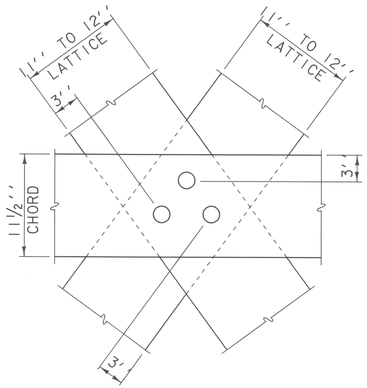
LATTICE TO CHORD END CONNECTION (ONE TRUNNEL)

SCALE 1 1/2" = 1'-0"



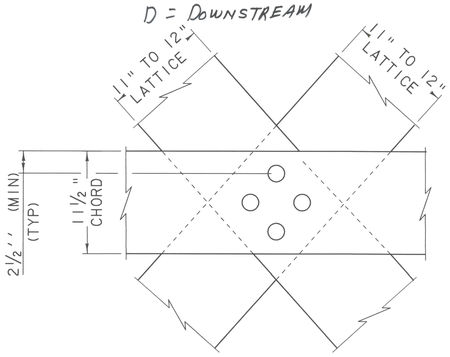
LATTICE TO LATTICE 2 TRUNNEL CONNECTION

SCALE 1 1/2" = 1'-0"



LATTICE TO CHORD 3 TRUNNEL CONNECTION (FOR TOP AND UPPER BOTTOM CHORDS)

SCALE 1 1/2" = 1'-0"



LATTICE TO CHORD 4 TRUNNEL CONNECTION (FOR LOWER BOTTOM CHORD)

SCALE 1 1/2" = 1'-0"

NOTES FOR NEW TRUNNEL CONNECTIONS:

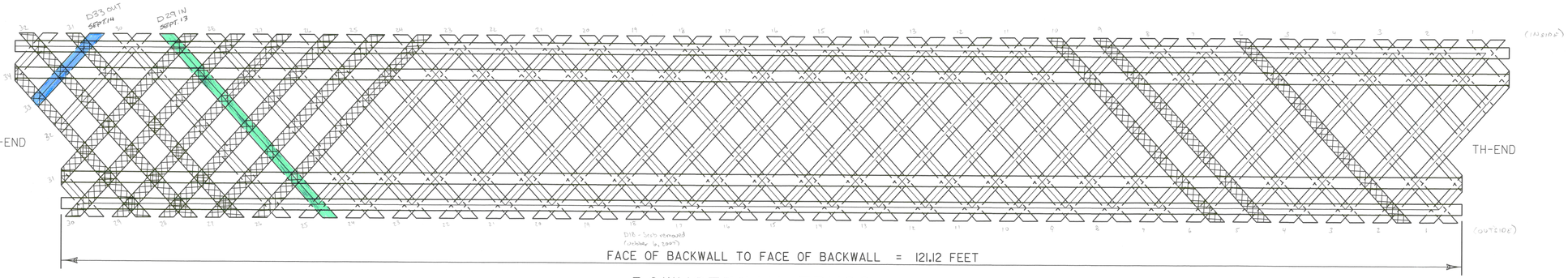
1. HOLE POSITION IN GROUP TO BE AS INDICATED.
2. MINIMUM EDGE DISTANCE IN 4 TRUNNEL CHORD CONNECTION = 1 1/2''.
   MINIMUM EDGE DISTANCE IN 3 TRUNNEL CHORD CONNECTION = 2''.
   MINIMUM EDGE DISTANCE IN LATTICE CONNECTION = 2''.
   MINIMUM END DISTANCE = 13''
   MINIMUM EDGE DISTANCE BETWEEN HOLES = 2 1/2''
3. A MINIMUM OF 1/3 TRUNNELS IN EACH CONNECTION TO BE DRIVEN FROM OPPOSITE SIDES.
4. TRUNNELS WILL BE 2" DIAMETER WHITE OAK OR WHITE ASH

LATTICE TRUSS ELEVATIONS & TRUNNEL CONNECTION DETAILS

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /96J234/str/s96J234rfp.dgn	PLOT DATE: 06-SEP-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sJ2341td.1	SHEET 32A OF 60

ADDITIONAL PIECES IDENTIFIED WITH SIGNIFICANT DRY ROT

ADDITIONAL PIECES SPLIT ENDS AND/OR SIGNIFICANT SECTION LOST



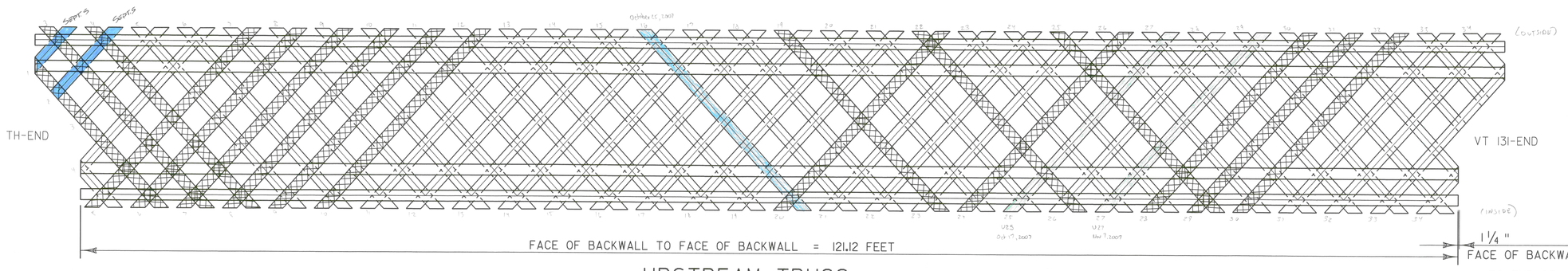
CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

DOWNSTREAM TRUSS

SCALE: 3/16'' = 1'-0''

(LOOKING FROM ℄ OF BRIDGE)

STATIONING ←

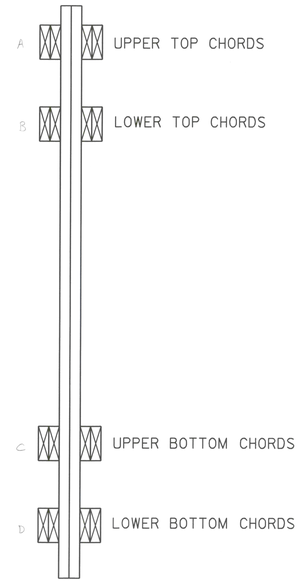


UPSTREAM TRUSS

SCALE: 3/16'' = 1'-0''

(LOOKING FROM ℄ OF BRIDGE)

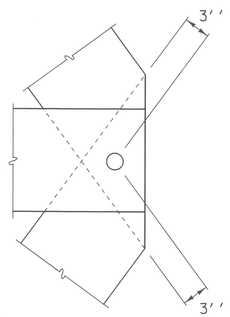
STATIONING →



TYPICAL SECTION

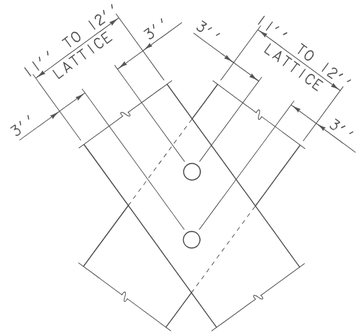
NOT TO SCALE

1 1/4" FACE OF BACKWALL TO END OF LOWER CHORD (TYP)



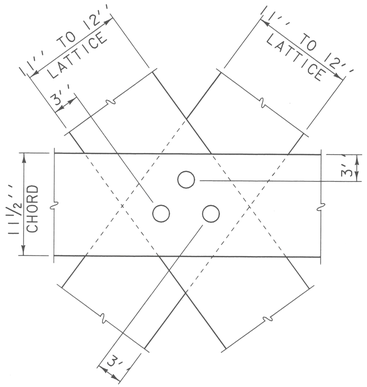
LATTICE TO CHORD END CONNECTION (ONE TRUNNEL)

SCALE 1½" = 1'-0



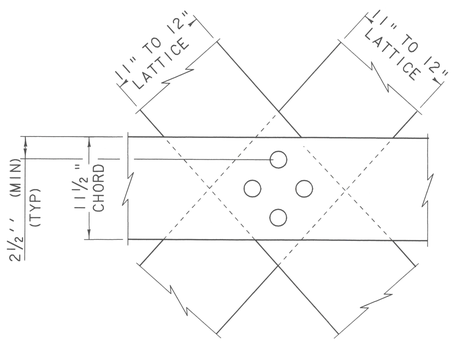
LATTICE TO LATTICE 2 TRUNNEL CONNECTION

SCALE 1½" = 1'-0



LATTICE TO CHORD 3 TRUNNEL CONNECTION (FOR TOP AND UPPER BOTTOM CHORDS)

SCALE 1½" = 1'-0



LATTICE TO CHORD 4 TRUNNEL CONNECTION (FOR LOWER BOTTOM CHORD)

SCALE 1½" = 1'-0

NOTES FOR NEW TRUNNEL CONNECTIONS:

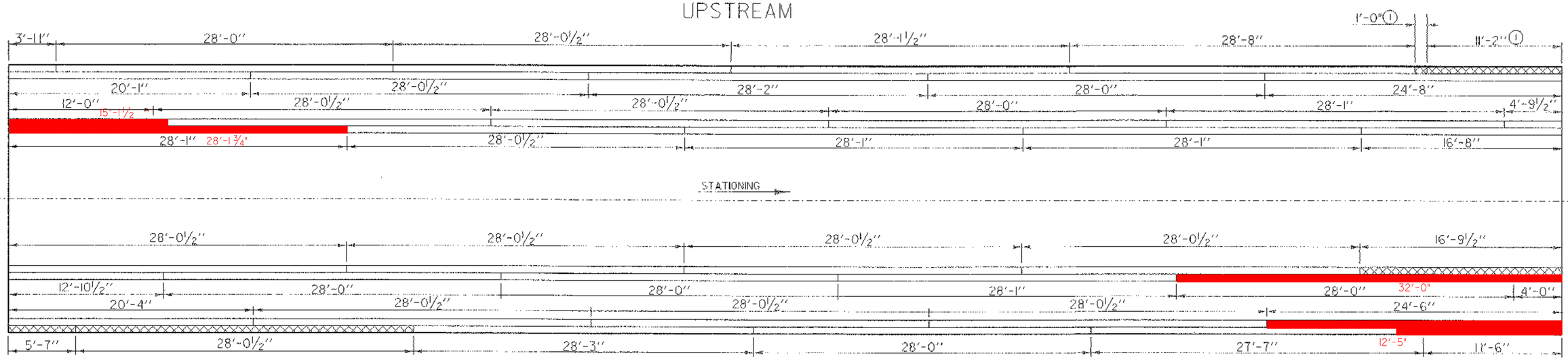
1. HOLE POSITION IN GROUP TO BE AS INDICATED.
2. MINIMUM EDGE DISTANCE IN 4 TRUNNEL CHORD CONNECTION = 1 1/2''.
   MINIMUM EDGE DISTANCE IN 3 TRUNNEL CHORD CONNECTION = 2''.
   MINIMUM EDGE DISTANCE IN LATTICE CONNECTION = 2''.
   MINIMUM END DISTANCE = 13''
   MINIMUM EDGE DISTANCE BETWEEN HOLES = 2 1/2''
3. A MINIMUM OF 1/3 TRUNNELS IN EACH CONNECTION TO BE DRIVEN FROM OPPOSITE SIDES.
4. TRUNNELS WILL BE 2" DIAMETER WHITE OAK OR WHITE ASH

LATTICE TRUSS ELEVATIONS & TRUNNEL CONNECTION DETAILS

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96J234/str/s96J234rfp.dgn	PLOT DATE: 17-SEP-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sJ234ltd.1	SHEET 32B OF 60

UPSTREAM



DOWNSTREAM

TOP VIEW OF
UPPER TOP CHORDS UNTREATED

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND
LOCATION OF JOINTS

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

(1) REPLACE 1'-0" PIECE AND 11'-2" PIECE WITH ONE THAT IS 12'-2"

UPPER TOP CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

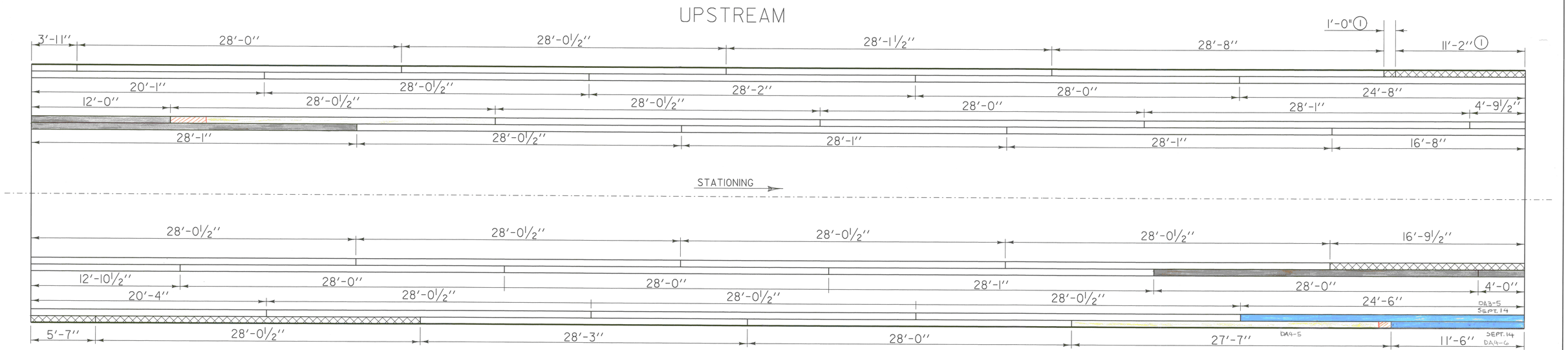
FILE NAME: /961234/str/s961234rtp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
961234utc.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 33 OF 60

ADDITIONAL PIECE DETERMINED TO BE REPLACED DURING SITE VISIT WITH JOE POSTON AND SCOTT NEWMAN

END OF PIECE WITH DRY ROT CUT OFF. REST OF PIECE SAVED

ADDITIONAL PIECES IDENTIFIED WITH SIGNIFICANT DRY ROT



TOP VIEW OF UPPER TOP CHORDS

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND LOCATION OF JOINTS

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

(1) REPLACE 1'-0" PIECE AND 11'-2" PIECE WITH ONE THAT IS 12'-2"

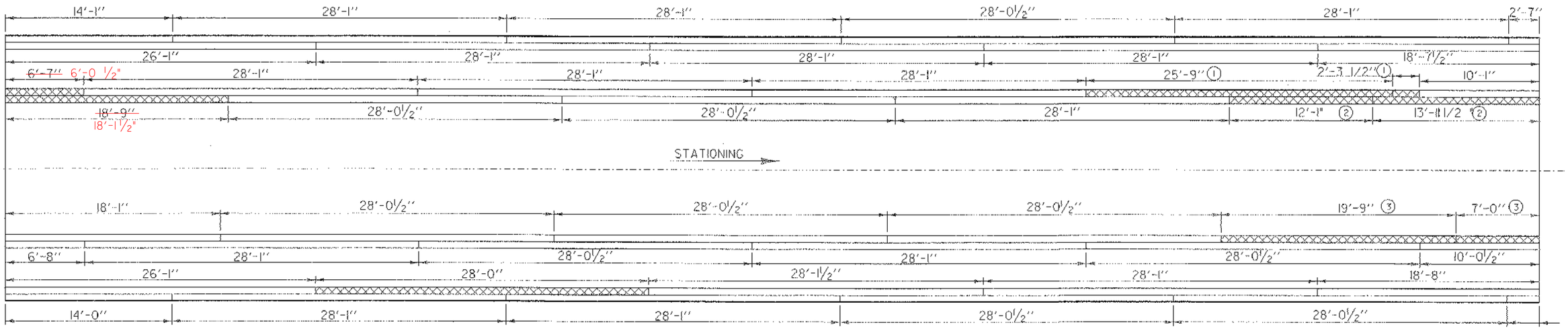
UPPER TOP CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234rfp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sJ234utc.1

PLOT DATE: 17-SEP-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 33A OF 60

UPSTREAM



DOWNSTREAM

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

(1) REPLACE 25'-9" PIECE AND 2'-3 1/2" PIECE WITH ONE THAT IS 28'-0 1/2"

(2) REPLACE 12'-1" PIECE AND 13'-11 1/2" PIECE WITH ONE THAT IS 26'-0 1/2"

(3) REPLACE 19'-9" PIECE AND 7'-0" PIECE WITH ONE THAT IS 26'-9"

TOP VIEW OF
LOWER TOP CHORDS UNTREATED

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND LOCATION OF JOINTS

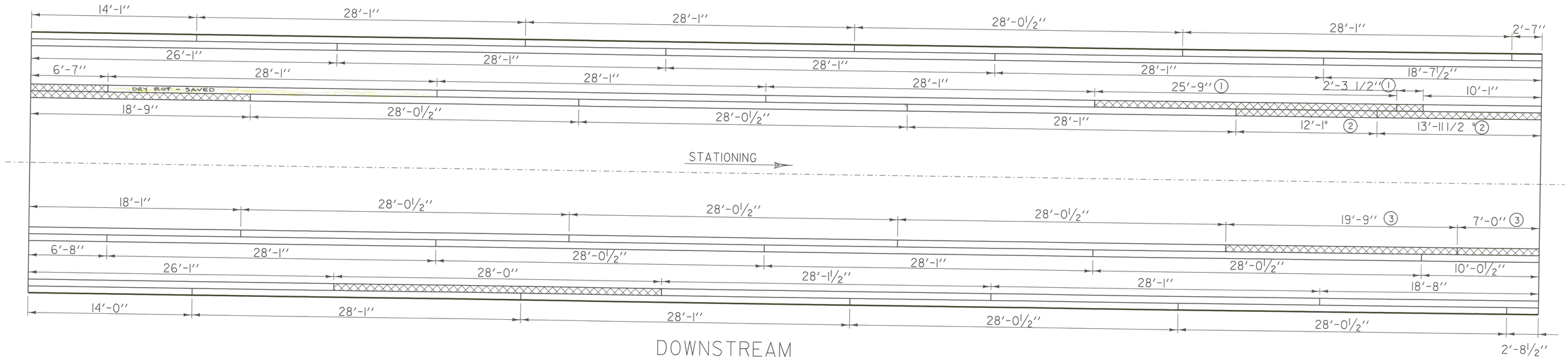
LOWER TOP CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234rfp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj2341to.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. SALVATORI
CHECKED BY: Y. SUMNER
SHEET 34 OF 60

UPSTREAM



DOWNSTREAM

TOP VIEW OF
LOWER TOP CHORDS

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND
LOCATION OF JOINTS

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

(1) REPLACE 25'-9" PIECE AND 2'-3 1/2" PIECE WITH ONE THAT IS 28'-0 1/2"

(2) REPLACE 12'-1" PIECE AND 13'-11 1/2" PIECE WITH ONE THAT IS 26'-0 1/2"

(3) REPLACE 19'-9" PIECE AND 7'-0" PIECE WITH ONE THAT IS 26'-9"

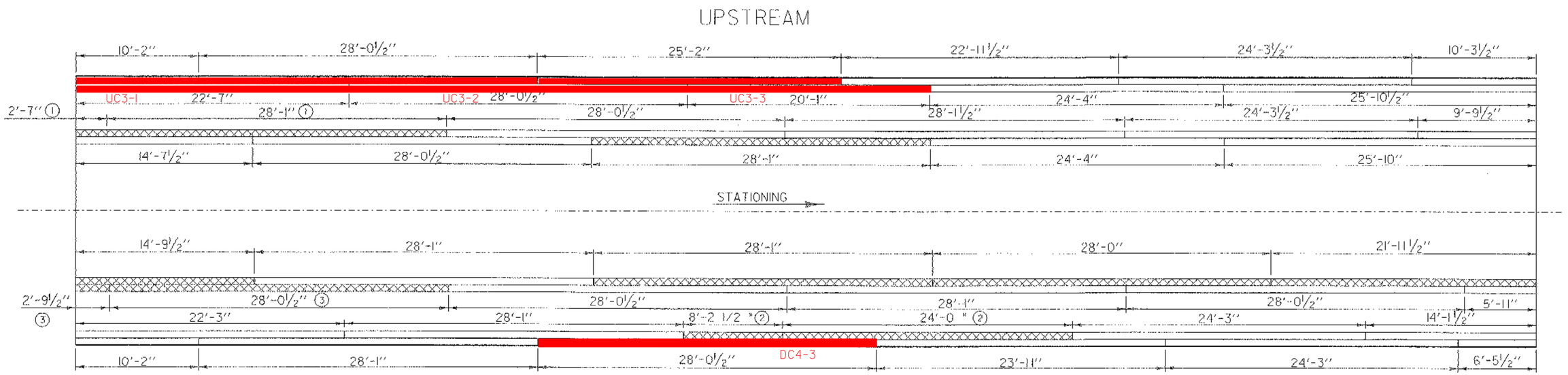
LOWER TOP CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234rfp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sJ2341tc.1

PLOT DATE: 17-SEP-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 34A OF 60

UPSTREAM



DOWNSTREAM

TOP VIEW OF
UPPER BOTTOM CHORDS TREATED

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND
LOCATION OF JOINTS

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

① REPLACE 2'-7" PIECE AND 28'-1" PIECE WITH ONE THAT IS 30'-8"

② REPLACE 8'-2 1/2" PIECE AND 24'-0" PIECE WITH ONE THAT IS 32'-2 1/2"

③ REPLACE 2'-9 2/2" PIECE AND 28'-0 1/2" PIECE WITH ONE THAT IS 30'-10" ONE THAT IS 32'-2 1/2"

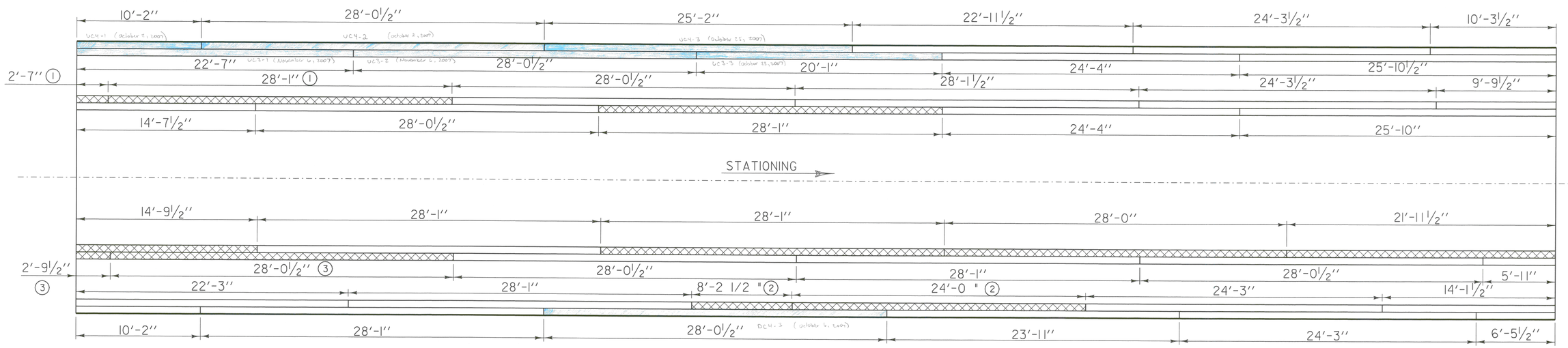
UPPER BOTTOM CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234rfp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234ubc.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 35 OF 60

UPSTREAM



DOWNSTREAM

TOP VIEW OF UPPER BOTTOM CHORDS

NOT TO SCALE

APPROXIMATE MEMBER LENGTHS AND LOCATION OF JOINTS

CROSSHATCHING DENOTES MEMBER PREDETERMINED TO BE REPLACED. ADDITIONAL MEMBERS MAY BE REQUIRED TO BE REPLACED. SEE GENERAL NOTE 12.

(1) REPLACE 2'-7" PIECE AND 28'-1" PIECE WITH ONE THAT IS 30'-8"

(2) REPLACE 8'-2 1/2" PIECE AND 24'-0" PIECE WITH ONE THAT IS 32'-2 1/2"

(3) REPLACE 2'-9 2/2" PIECE AND 28'-0 1/2" PIECE WITH ONE THAT IS 30'-10" ONE THAT IS 32'-2 1/2"

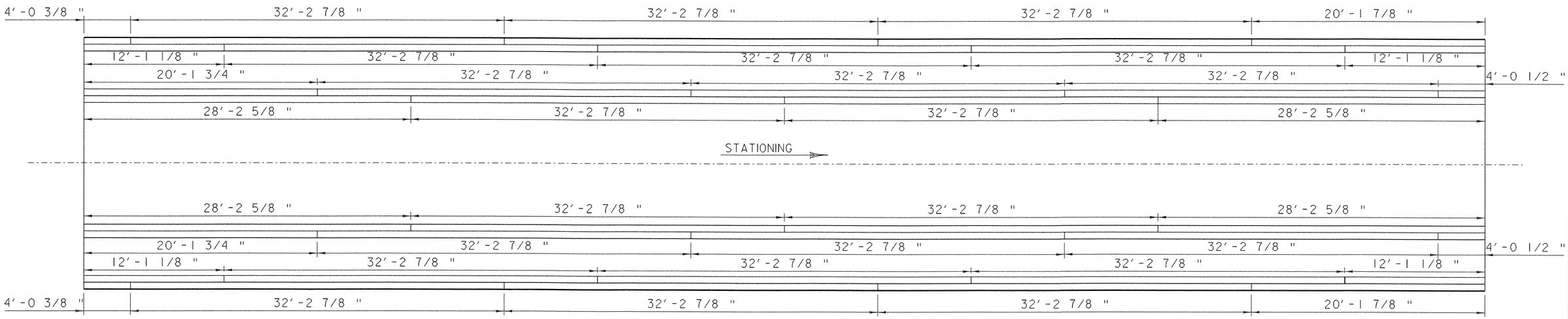
UPPER BOTTOM CHORD JOINT LOCATIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234rfp.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sJ234ubc.1

PLOT DATE: 17-SEP-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 35A OF 60

UPSTREAM



DOWNSTREAM

TOP VIEW OF
LOWER BOTTOM CHORDS

NOT TO SCALE

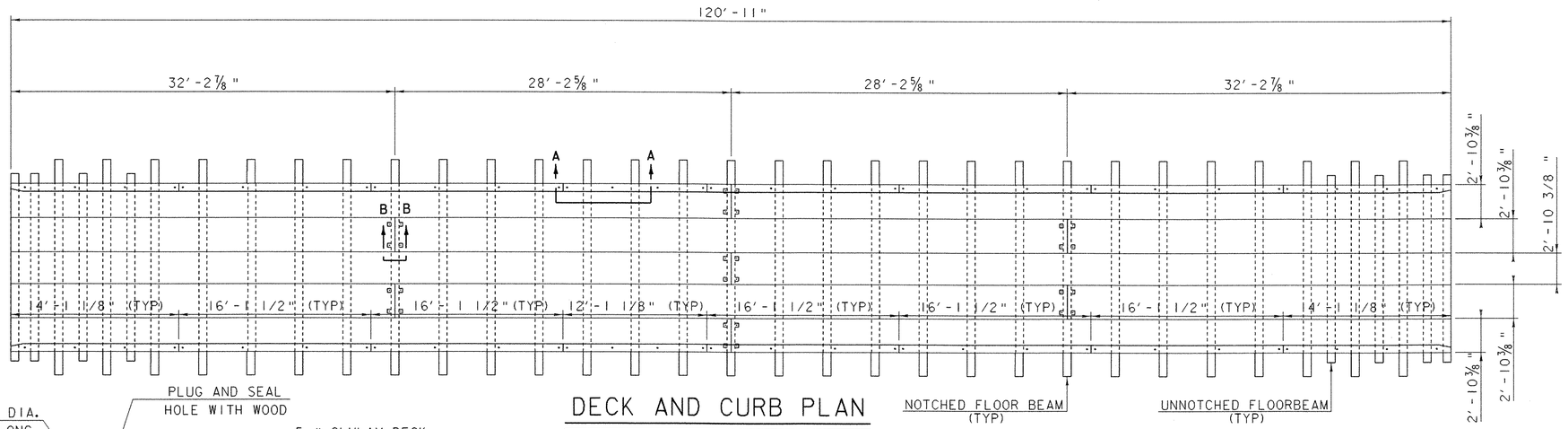
APPROXIMATE MEMBER LENGTHS AND
LOCATION OF JOINTS

NOTE: THE ENTIRE LOWER BOTTOM CHORD WILL BE REPLACED TO THE LENGTHS SHOWN ABOVE.

LOWER BOTTOM CHORD JOINT LOCATIONS

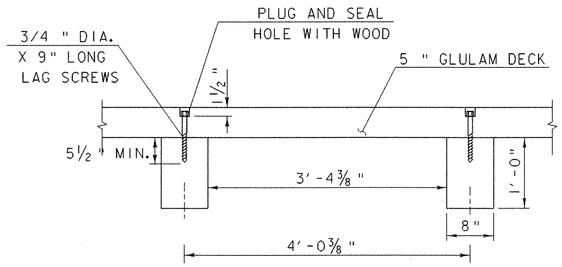
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234rfp.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234lbc.i	SHEET 36 OF 60



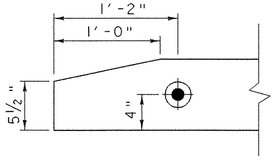
DECK AND CURB PLAN

SCALE: 3/16" = 1'-0"



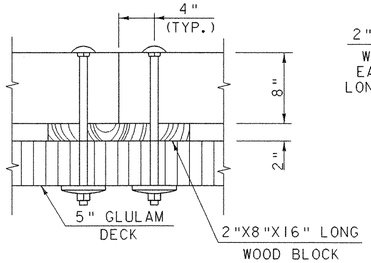
SECTION A-A

GLULAM DECK
SCALE 1" = 1'-0



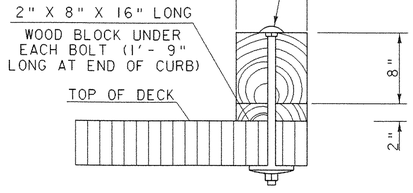
CURB END TAPER

SCALE: 1 1/2" = 1'-0"



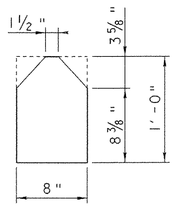
CURB SPLICE

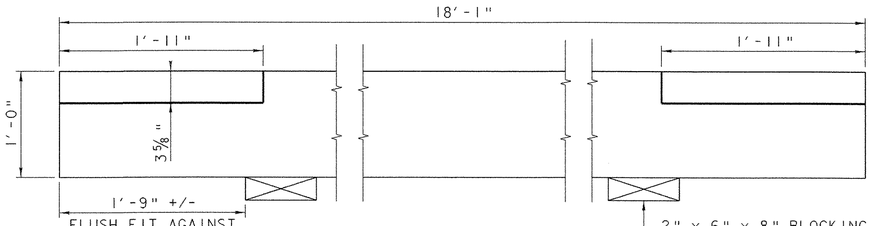
SCALE: 1 1/2" = 1'-0"



CURB CONNECTION SECTION VIEW

SCALE: 1 1/2" = 1'-0"



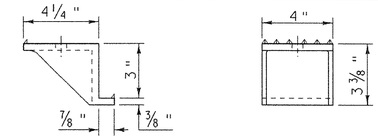


NOTCHED FLOOR BEAM

END SECTION
SCALE 1 1/2" = 1'-0

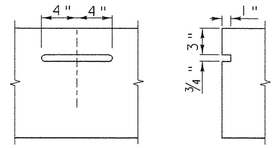
NOTCHED FLOOR BEAM

(29 REQUIRED)
SCALE 1 1/2" = 1'-0



ALUMINUM DECK BRACKET *

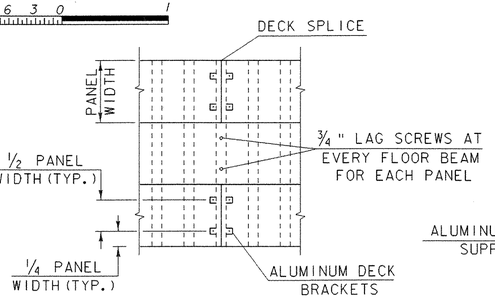
SCALE: 3" = 1'-0"



FLOOR BEAM DAP DETAIL *

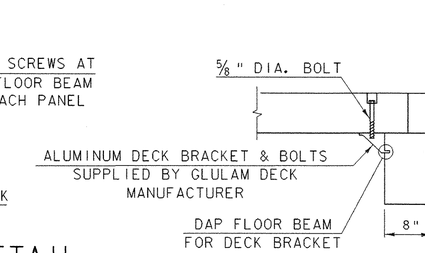
SCALE 1 1/2" = 1'-0

* NOTE: DIMENSIONS OF DECK BRACKET AND FLOOR BEAM DAP MAY VARY DUE TO GLULAM DECK SUPPLIER.



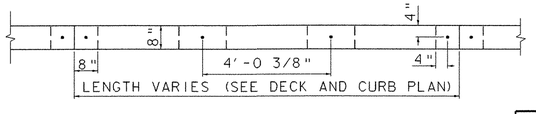
DECK PANEL SPLICE DETAIL

NOT TO SCALE



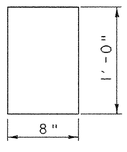
SECTION B-B

PANEL SPLICE AT FLOOR BEAM
SCALE 1" = 1'-0



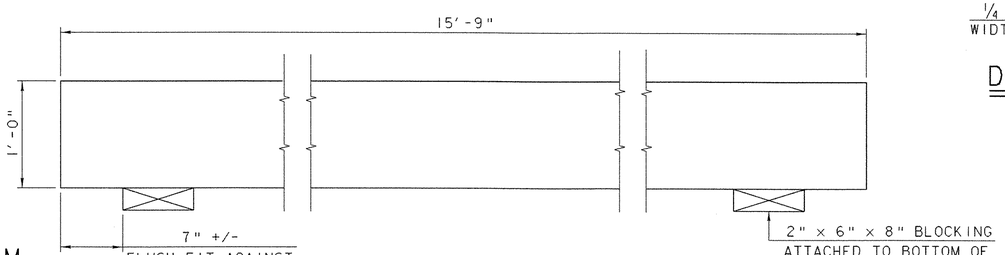
CURB SPLICE PLAN DETAIL

SCALE: 1/2" = 1'-0"



UNNOTCHED FLOOR BEAM

END SECTION
SCALE 1 1/2" = 1'-0

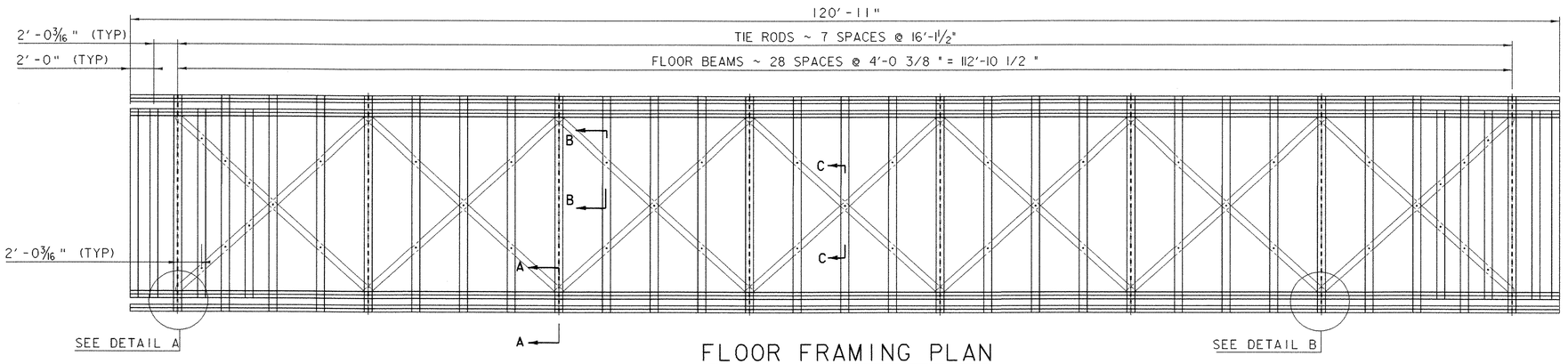


UNNOTCHED FLOOR BEAM

(8 REQUIRED)
SCALE 1 1/2" = 1'-0

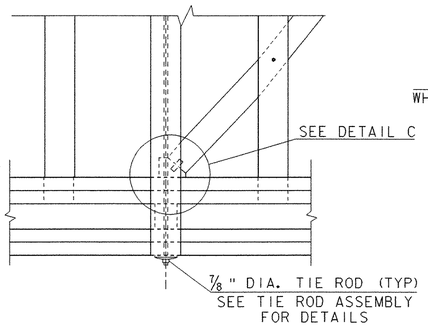
GLULAM DECK PLAN

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: /96j234/str/s96j234rfp.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234dfp.i	SHEET 37 OF 60



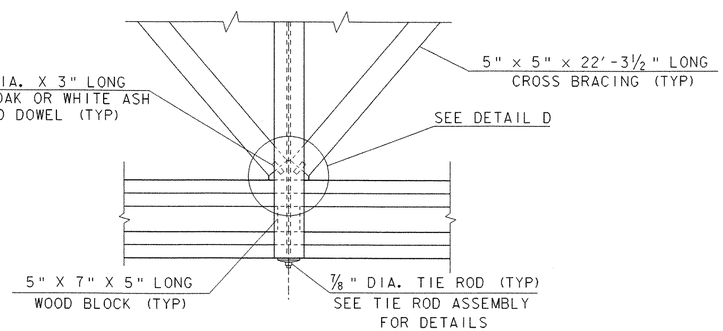
FLOOR FRAMING PLAN

SCALE: 3/16" = 1'-0"



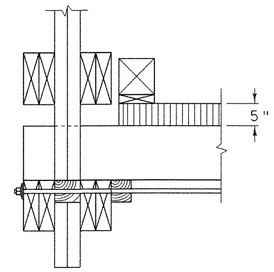
DETAIL A

SCALE 3/4" = 1'-0



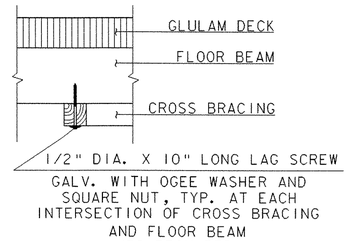
DETAIL B

SCALE 3/4" = 1'-0



SECTION A-A

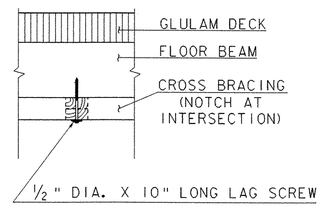
SCALE 3/4" = 1'-0



GALV. WITH OGEE WASHER AND SQUARE NUT, TYP. AT EACH INTERSECTION OF CROSS BRACING AND FLOOR BEAM (36 REQUIRED)

SECTION B-B

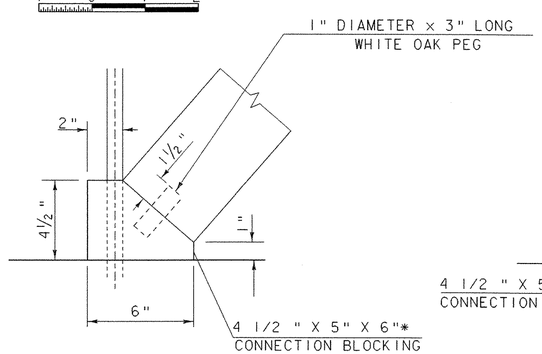
SCALE 3/4" = 1'-0



GALV. WITH OGEE WASHER AND SQUARE NUT, TYP. AT EACH CROSSING OF CROSS BRACING (7 REQUIRED)

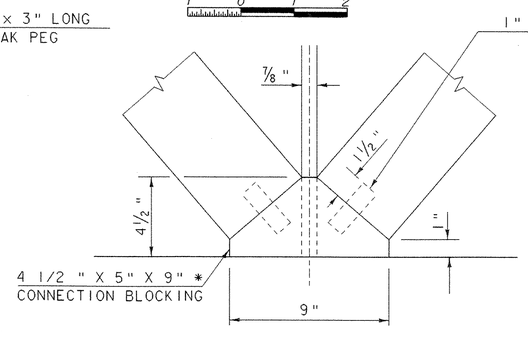
SECTION C-C

SCALE 3/4" = 1'-0



DETAIL C

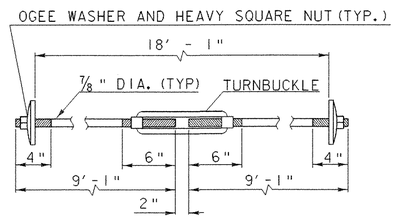
SCALE: 3" = 1'-0"



DETAIL D

SCALE: 3" = 1'-0"

DETAILS C & D
NOTE: FLOOR BEAM NOT SHOWN FOR CLARITY



TIE ROD ASSEMBLY

(GALVANIZED) (8 REQUIRED)

SCALE 1 1/2" = 1'-0

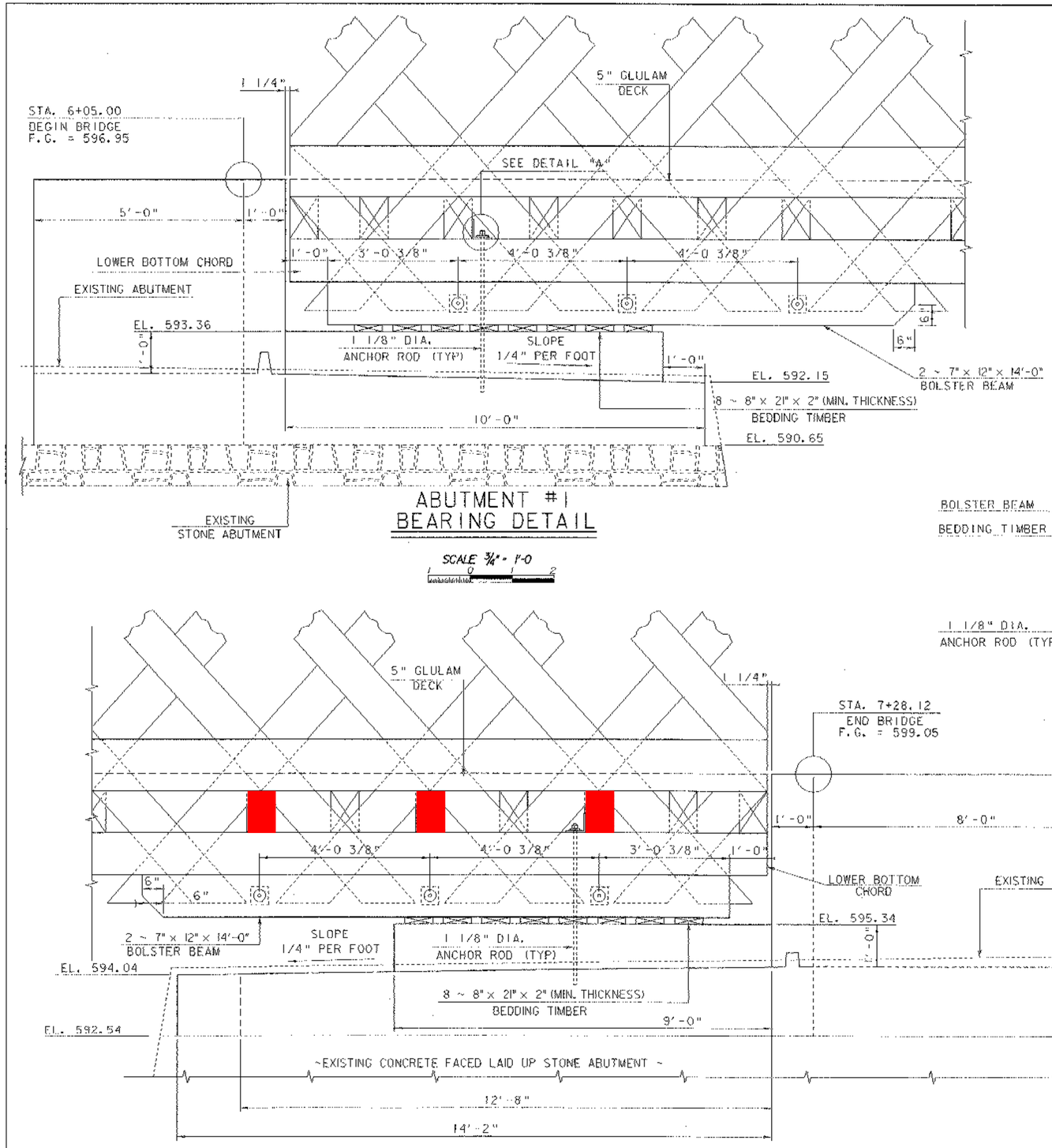
* 7" x 3/8" DIA. GALVANIZED LAG SCREWS CAN BE USED TO HOLD CONNECTION IN PLACE DURING CROSS BRACING INSTALLATION.

BOTTOM CORD CROSS BRACING DETAILS

FLOOR FRAMING PLAN

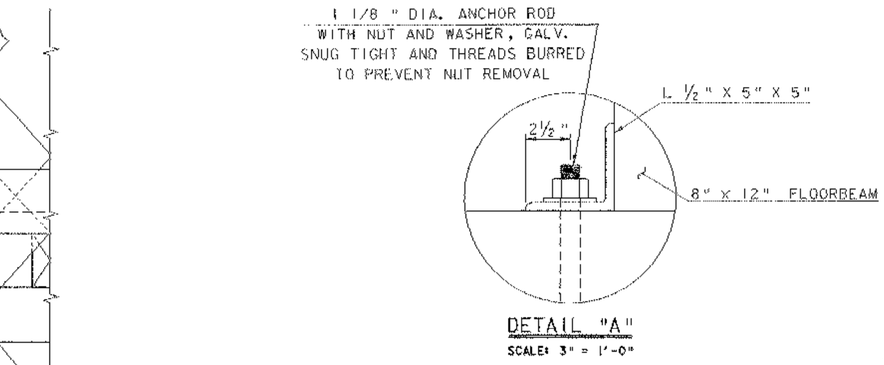
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234rfp.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: J. SALVATORI
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234rfp.i	SHEET 38 OF 60



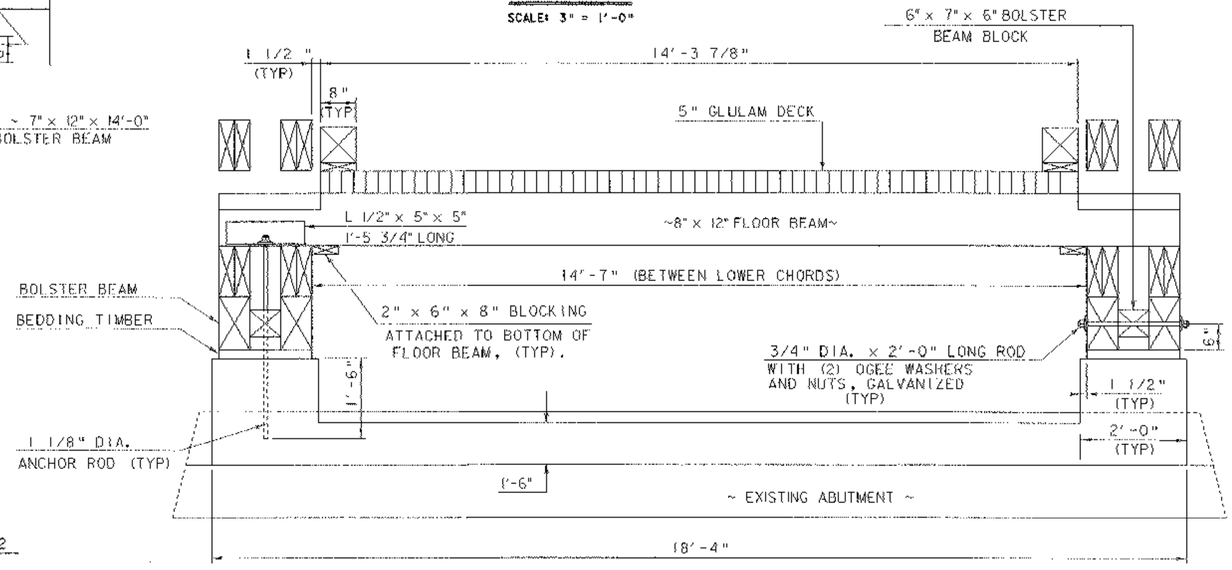
ABUTMENT #1 BEARING DETAIL

SCALE 3/4" = 1'-0



DETAIL "A"

SCALE: 3" = 1'-0"



ABUTMENT TYPICAL SECTION

SCALE 3/4" = 1'-0

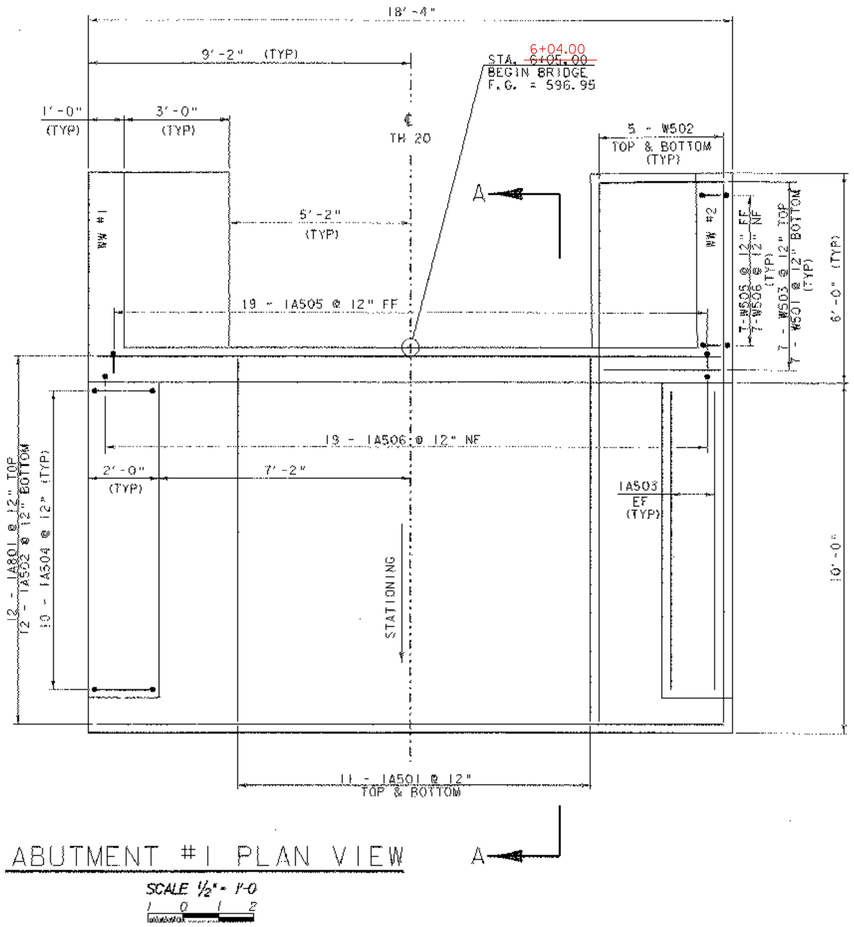
ABUTMENT #2 BEARING DETAIL

SCALE 3/4" = 1'-0

BEARING DETAILS & ABUTMENT TYPICAL SECTION

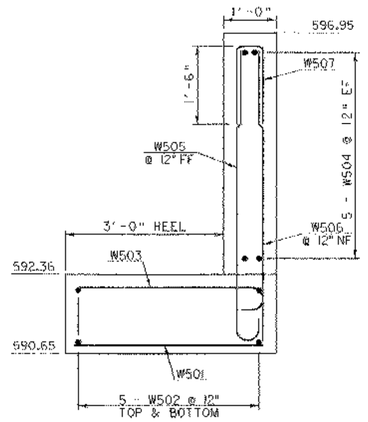
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234rfp.dgn		PLOT DATE:	15-MAR-2007
PROJECT LEADER:	W. SYMONDS	DRAWN BY:	J. SALVATORI
DESIGNED BY:	T. FILLBACH	CHECKED BY:	T. SUMNER
sj234bearing.l		SHEET 39	OF 60



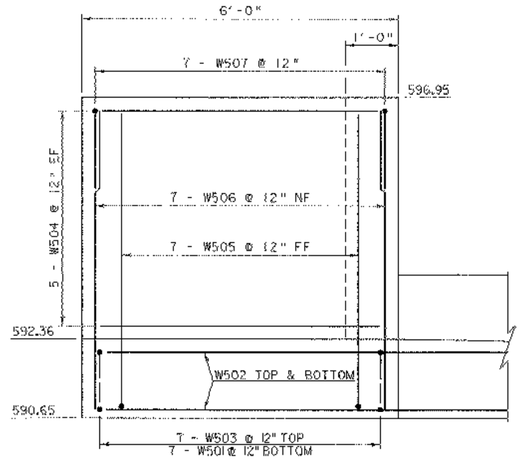
ABUTMENT #1 PLAN VIEW

SCALE ½" = 1'-0



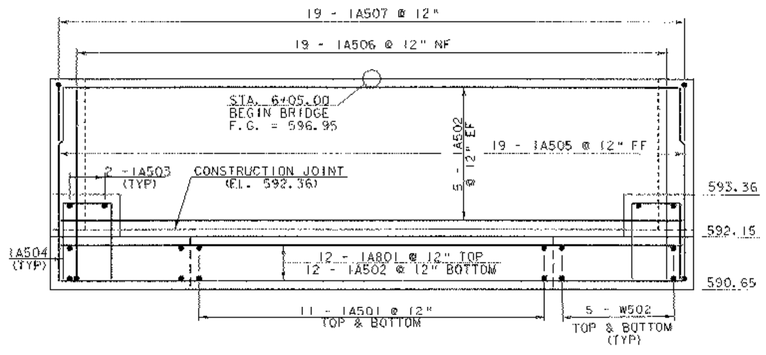
WINGWALL 1 & 2 TYPICAL SECTION

SCALE ¾" = 1'-0



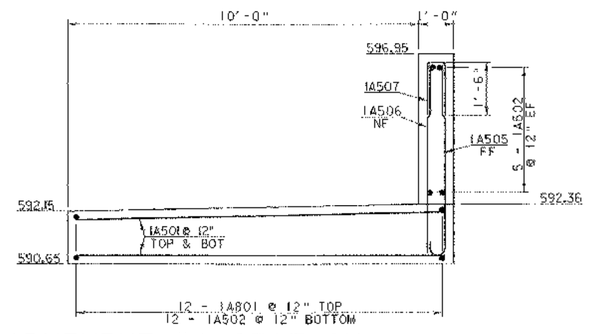
WINGWALL 1 & 2 ELEVATION VIEW

SCALE ¾" = 1'-0



ABUTMENT #1 ELEVATION VIEW

SCALE ½" = 1'-0



ABUTMENT #1 SECTION A-A

SCALE ½" = 1'-0

NOTE:

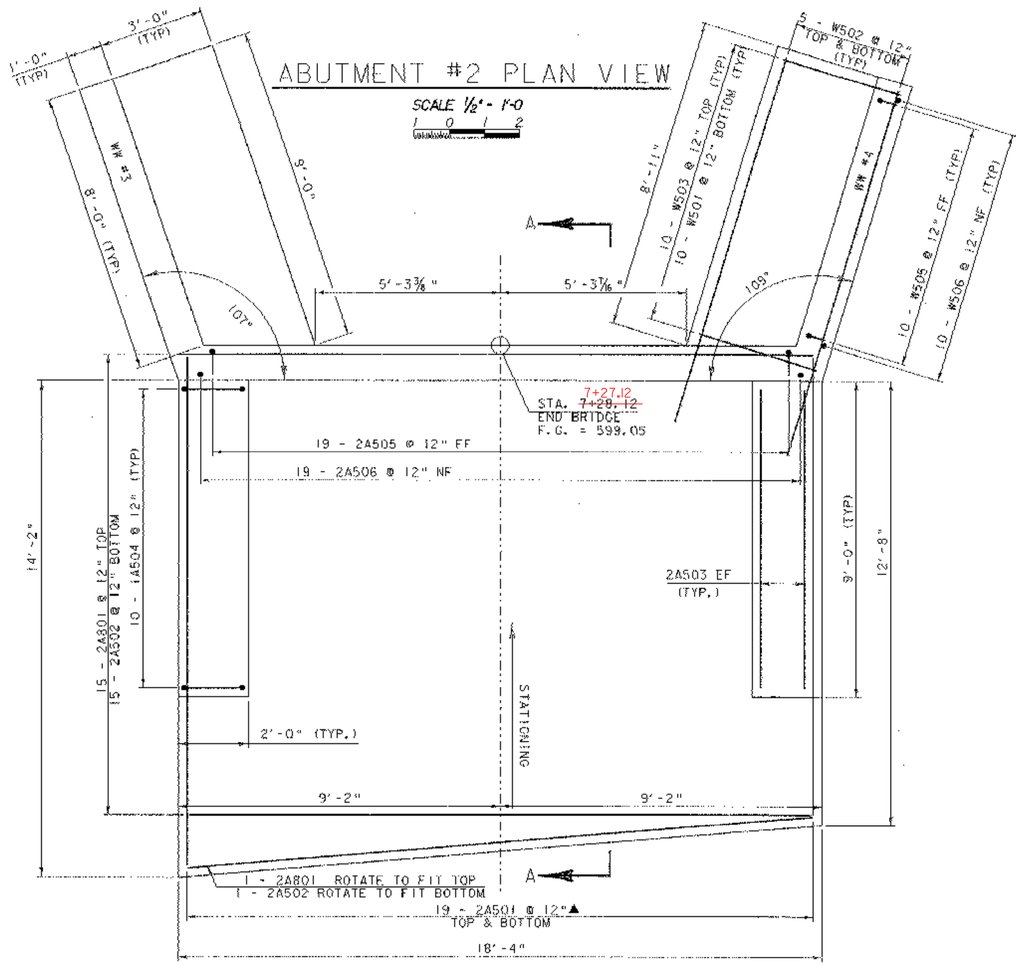
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

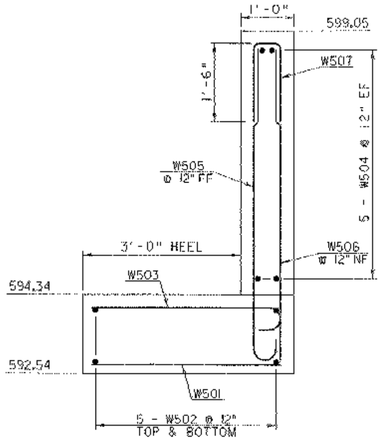
ABUTMENT #1 CAP DETAILS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234sub.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
s_j234dcap_1

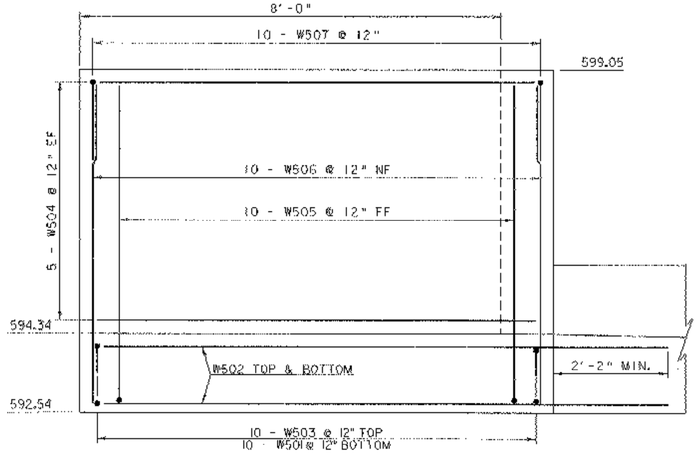
PLOT DATE: 15-MAR-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 40 OF 60





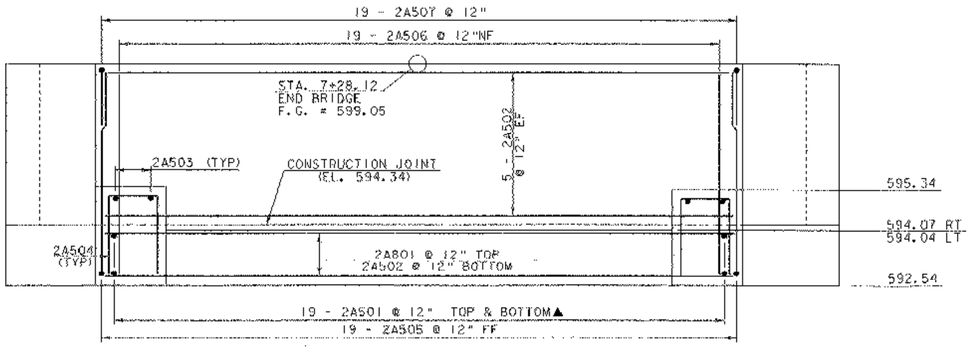
WINGWALL 3 & 4
TYPICAL SECTION

SCALE ¾"- 1'-0
0 1 2



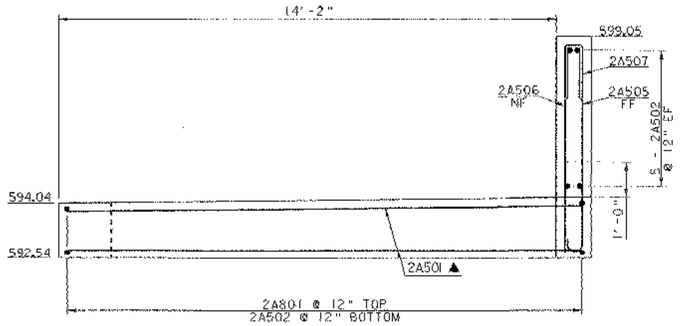
WINGWALL 3 & 4
ELEVATION VIEW

SCALE ¾"- 1'-0
0 1 2



ABUTMENT#2 ELEVATION VIEW

SCALE ½"- 1'-0
0 1 2



ABUTMENT #2 SECTION A-A

SCALE ½"- 1'-0
0 1 2

NOTE:

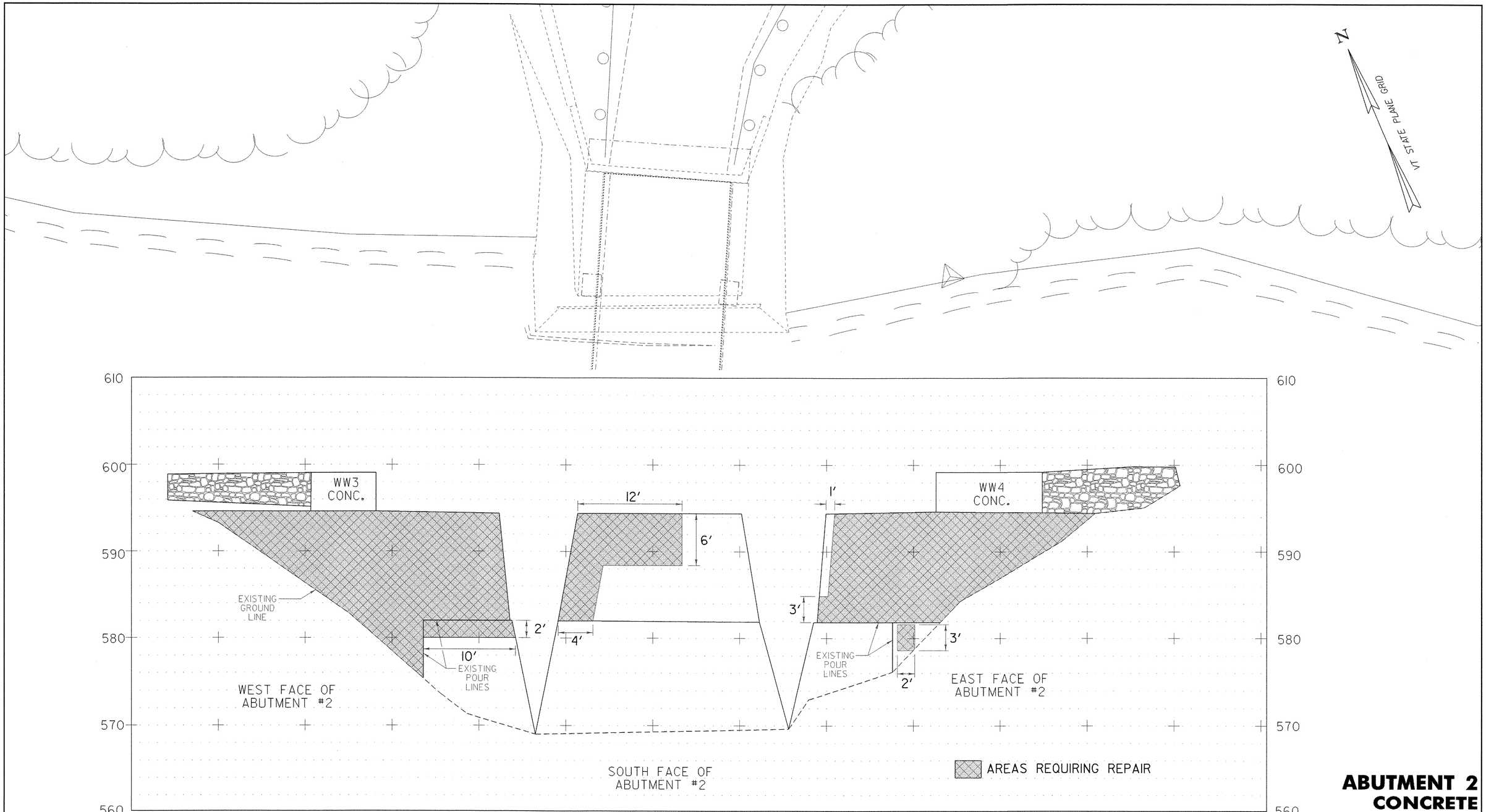
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ABUTMENT #2 CAP DETAILS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234sub.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
s1234a2cap.i

PLOT DATE: 15-MAR-2007
DRAWN BY: J. SALVATORI
CHECKED BY: T. SUMNER
SHEET 41 OF 60

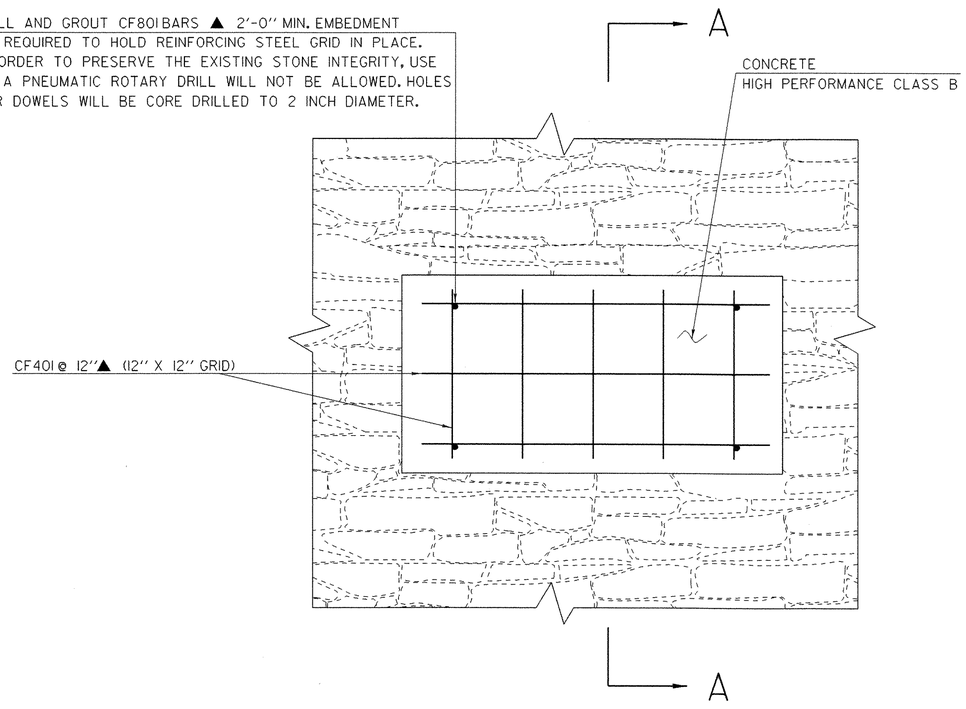


ABUTMENT 2 CONCRETE FACING REPAIRS

0 5 10
SCALE IN FEET

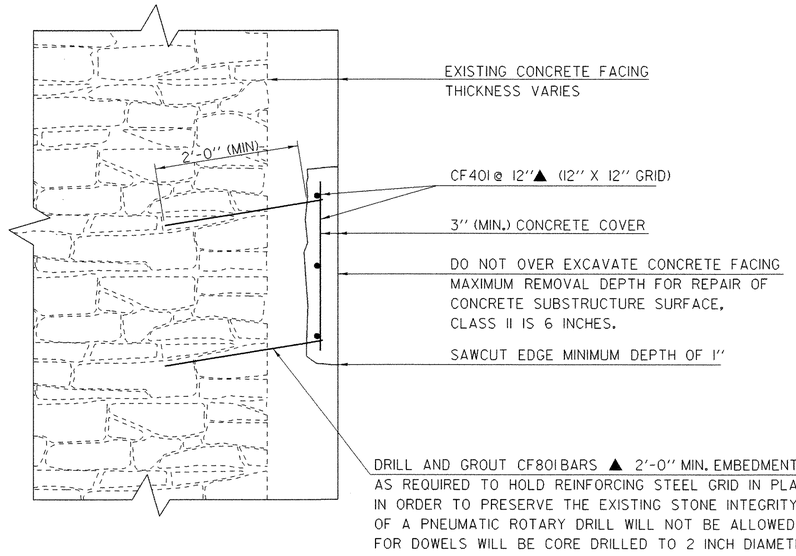
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96]234/concrepairbdr.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. SUMNER	CHECKED BY: J. LACROIX
concreterepair.i	SHEET 42 OF 60



ABUTMENT #2 TYPICAL REPAIR AREA
ELEVATION

SCALE: 1" = 1'



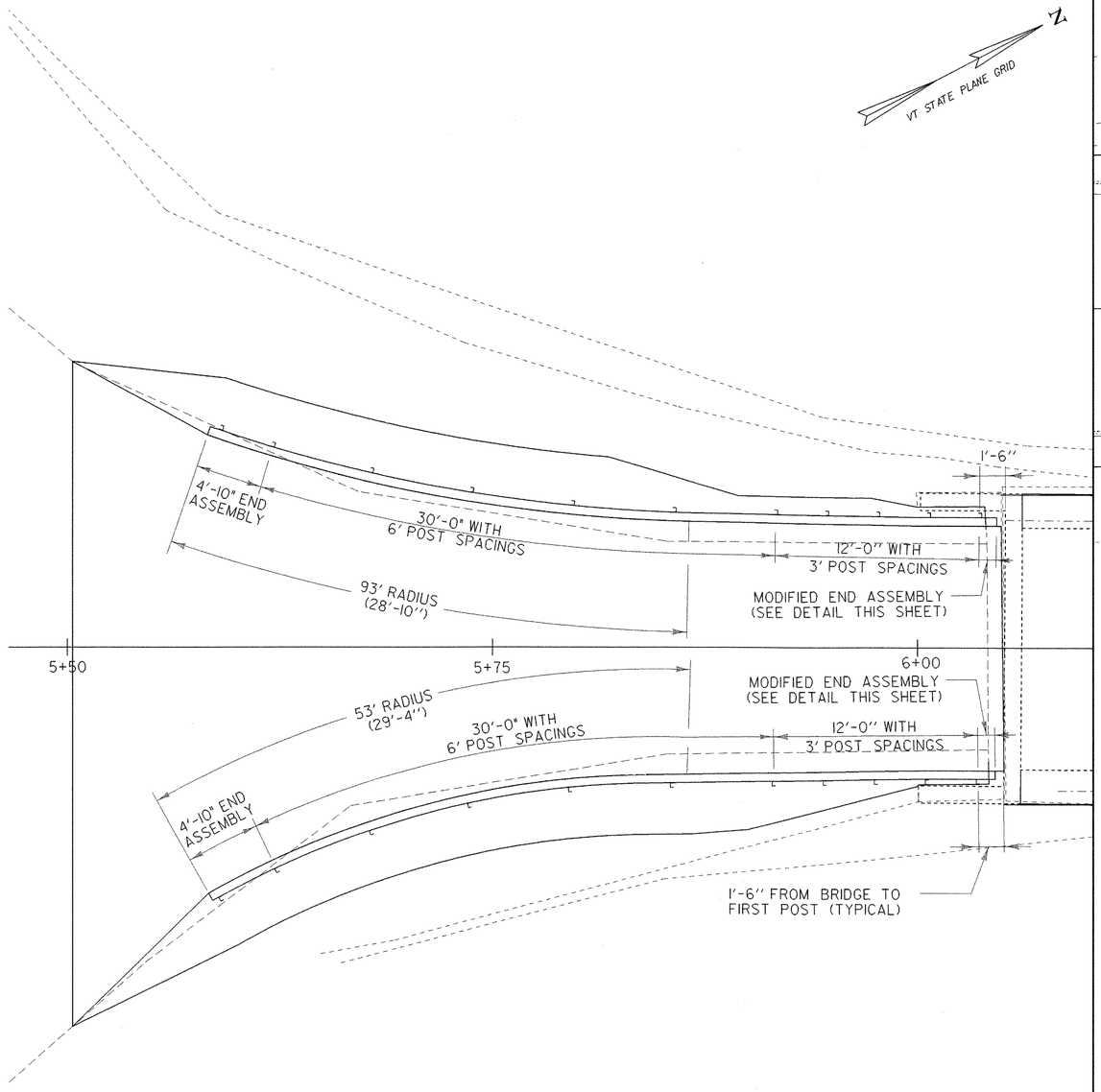
ABUTMENT #2 TYPICAL REPAIR AREA
SECTION A-A

SCALE: 1" = 1'

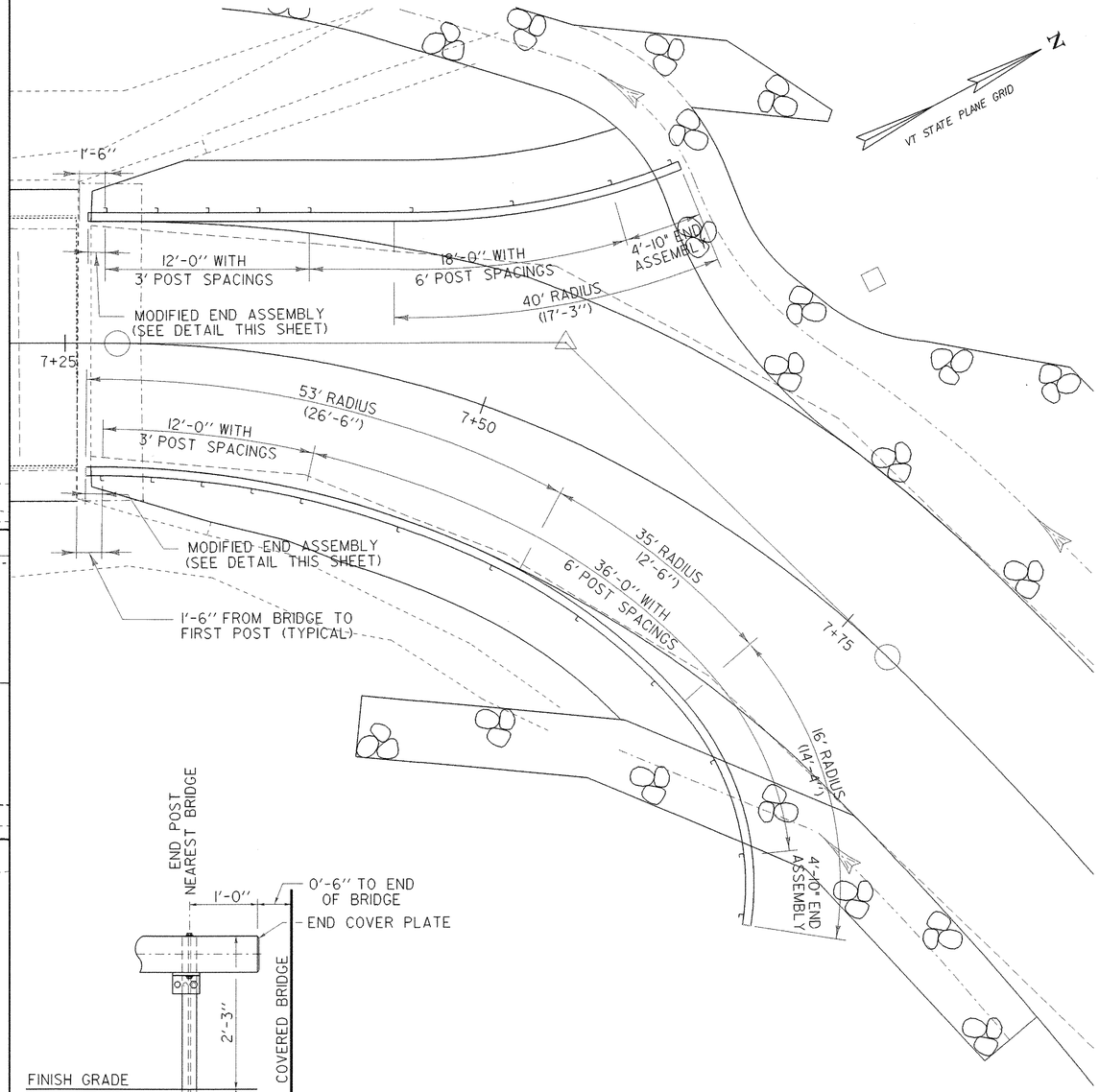
CONCRETE FACING REPAIR DETAIL

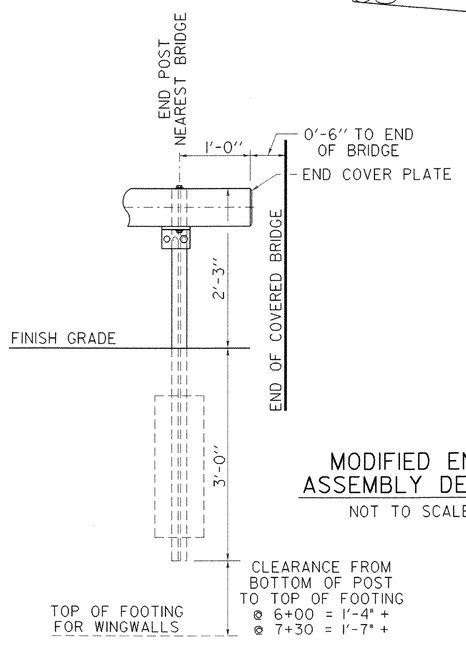
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96J234/str/s96J234typ.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: D. BASSETT
DESIGNED BY: T. SUMNER	CHECKED BY: T. SUMNER
sj234repair.i	SHEET 43 OF 60



SCALE 1/4" = 1'-0





MODIFIED END ASSEMBLY DETAIL

NOT TO SCALE

SCALE 1/4" = 1'-0

GUARDRAIL LAYOUT

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)
FILE NAME: 96J234/s96J234guardrail.dg	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
s96J234guardrail.i	SHEET 48 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																				REMARKS	SIGN DETAIL	
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			FOUND-ATION	TUBULAR STEEL Ø (in) lb/ft				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE	SIGN FRAME REQUIRED		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
												1.12	2.0	3.0	1.75	2.0	2.5			3.0	4.0	4.0 MOD		3.0	3.5	4.0	5.0	24"	30"						
														OPTION ITEMS																					
5+67 RT.	WEIGHT LIMIT 6 TONS	1	24	30	5.00						1			X																			SEE BELOW	
7+49 LT.	WEIGHT LIMIT 6 TONS	1	24	30	5.00						1			X																			SEE BELOW	
INTERSECTION VT 131 & TH20	WEIGHT LIMIT 6 TONS	1	24	30	5.00				1																							SEE BELOW	



R12-1

* OPTICALLY SPACE NUMERALS ABOUT CENTERLINE

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
STD.	24	30	3/8	5/8	3	4D	1 3/4	2 1/8	5E	5D	9	9 1/2	4 1/2	8 1/4	1 1/2

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

	FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB													
TOTALS	SF 15.0	SF	EA.	SF		FT 24		FT		LB		EA.	LB				EA.	EA.	LB										

SIGN SUMMARY SHEET

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234nul.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. SUMNER
s96j234sign.i

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 49 OF 60

STATE OF VERMONT
AGENCY OF TRANSPORTATION

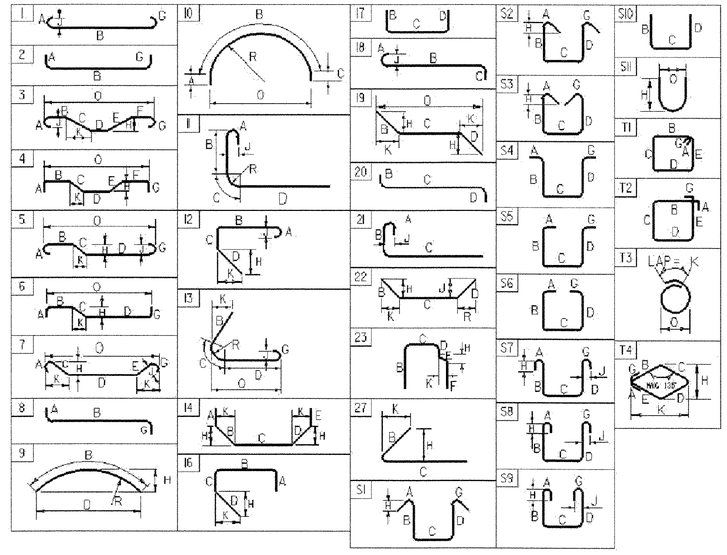
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	ABUTMENT #1																
	22	5	10'- 6"	1A501	STR												
	22	5	17'- 10"	1A502	STR												
	4	5	8'- 6"	1A503	STR												
	19	5	5'- 6"	1A506	STR												
✳	13	8	17'- 10"	1A801	STR												
	19	5	6'- 1"	1A505	1	0'- 7"	5'- 6"					---		0'- 5"			
	20	5	5'- 10"	1A504	S10		2'- 2"	1'- 6"	2'- 2"								
	19	5	3'- 6"	1A507	S10		1'- 6"	0'- 6"	1'- 6"								
	ABUTMENT #2																
▲	38	5	14'- 8"	2A501	STR												
	26	5	17'- 10"	2A502	STR												
	4	5	8'- 6"	2A503	STR												
	19	5	6'- 0"	2A506	STR												
✳	17	8	17'- 10"	2A801	STR												
	19	5	6'- 7"	2A505	1	0'- 7"	6'- 0"					---		0'- 5"			
	20	5	6'- 0"	2A504	S10		2'- 3"	1'- 6"	2'- 3"								
	19	5	3'- 6"	2A507	S10		1'- 6"	0'- 6"	1'- 6"								
	WINGWALL #1																
	7	5	3'- 6"	1W501	STR												
✳	11	5	15'- 6"	1W502	STR												
	10	5	5'- 6"	1W504	STR												
	7	5	5'- 9"	1W506	STR												
	7	5	4'- 1"	1W503	1	0'- 7"	3'- 6"					---		0'- 5"			
	7	5	6'- 4"	1W505	1	0'- 7"	5'- 9"					---		0'- 5"			
	7	5	3'- 7"	1W507	S10		1'- 6"	0'- 7"	1'- 6"								
	WINGWALL #2																
	7	5	3'- 6"	2W501	STR												
	10	5	15'- 6"	2W502	STR												
	10	5	5'- 6"	2W504	STR												
	7	5	5'- 9"	2W506	STR												
	7	5	4'- 1"	2W503	1	0'- 7"	3'- 6"					---		0'- 5"			
	7	5	6'- 4"	2W505	1	0'- 7"	5'- 9"					---		0'- 5"			
	7	5	3'- 7"	2W507	S10		1'- 6"	0'- 7"	1'- 6"								
	WINGWALL #3																
	10	5	3'- 6"	3W501	STR												
	10	5	10'- 11"	3W502	STR												
	10	5	8'- 6"	3W504	STR												
	10	5	6'- 0"	3W506	STR												
	10	5	4'- 1"	3W503	1	0'- 7"	3'- 6"					---		0'- 5"			
	10	5	6'- 7"	3W505	1	0'- 7"	6'- 0"					---		0'- 5"			
	10	5	3'- 6"	3W507	S10		1'- 6"	0'- 6"	1'- 6"								
	WINGWALL #4																
	10	5	3'- 6"	4W501	STR												
✳	11	5	10'- 11"	4W502	STR												
	10	5	8'- 6"	4W504	STR												
	10	5	6'- 0"	4W506	STR												
	10	5	4'- 1"	4W503	1	0'- 7"	3'- 6"					---		0'- 5"			
	10	5	6'- 7"	4W505	1	0'- 7"	6'- 0"					---		0'- 5"			
	10	5	3'- 6"	4W507	S10		1'- 6"	0'- 6"	1'- 6"								
	CONCRETE FACING ABUTMENT #2																
✳ ▲	92	4	20'- 0"	CF401	STR												
✳ ▲	11	8	15'- 0"	CF801	STR												

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-SI). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. ✳ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. ALL REINFORCING STEEL IS EPOXY COATED



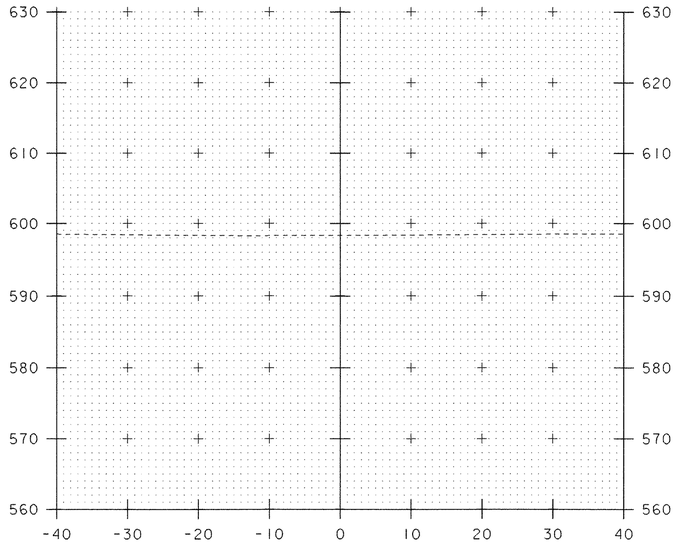
ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION DIAMETER INCHES	AREA INCHES ^{2}	PERIMETER INCHES
#3	0.376	0.375	0.11	1.178
#4	0.668	0.500	0.20	1.571
#5	1.043	0.625	0.31	1.963
#6	1.502	0.750	0.44	2.356
#7	2.044	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

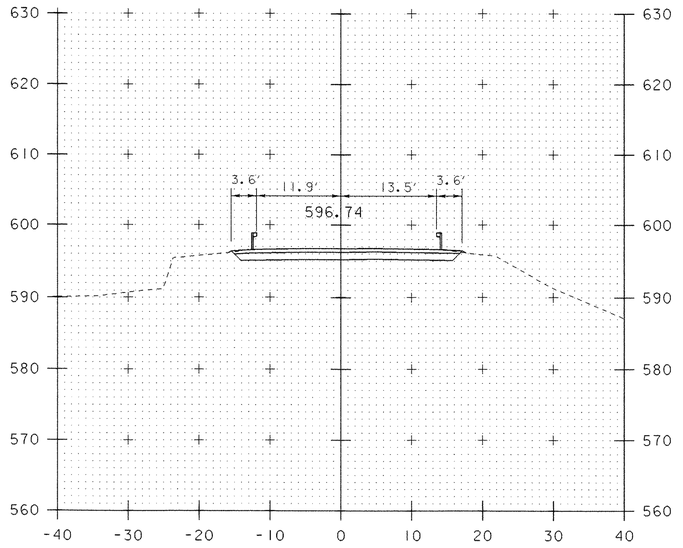
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234rein.xls
PROJECT MANAGER: W. SYMONDS
DESIGNED BY: T. SUMNER
REINFORCING STEEL SCHEDULE

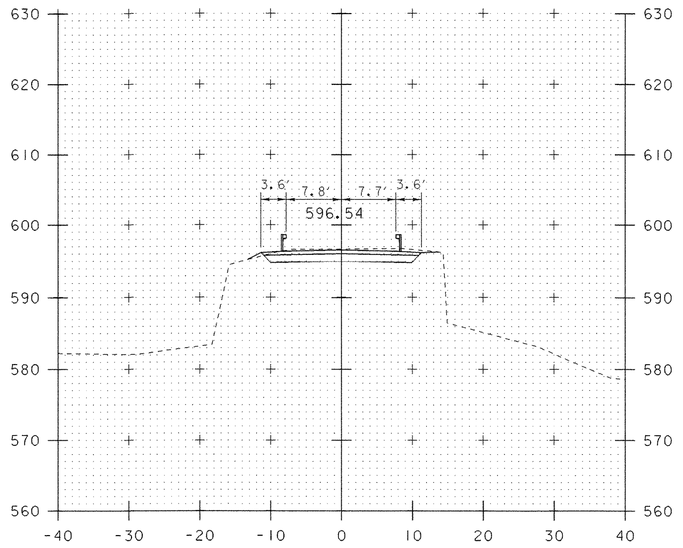
PLOT DATE: 2/21/2007
DRAWN BY: R. PELLETT
CHECKED BY: J. LACROIX
SHEET 50 OF 60



5+25

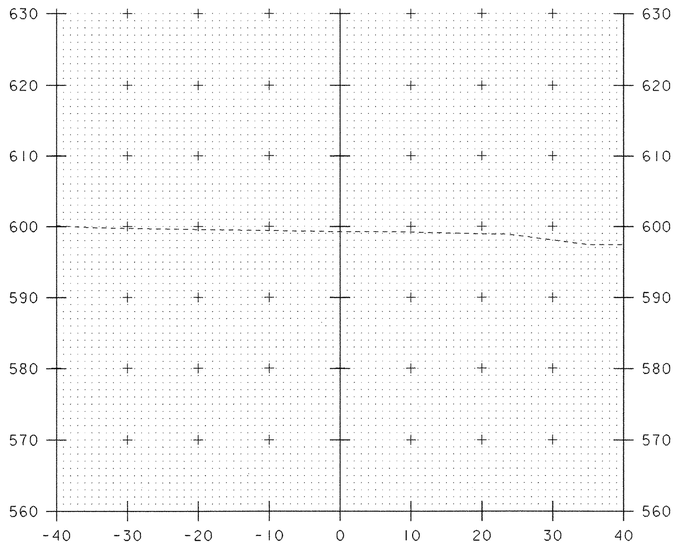


5+60

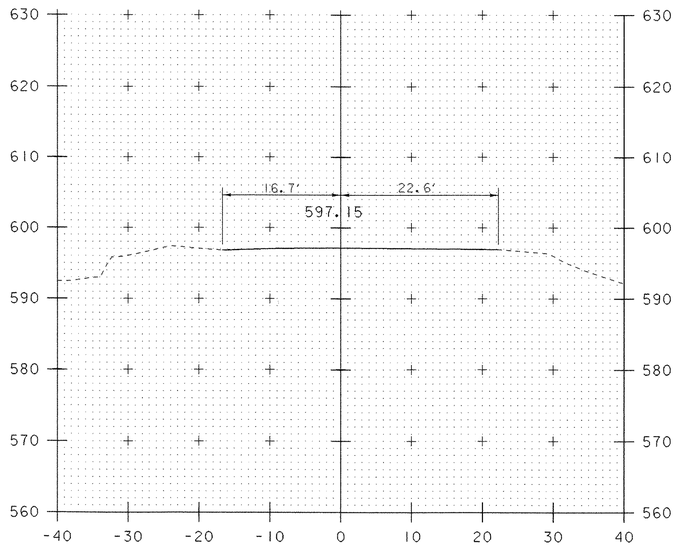


5+80

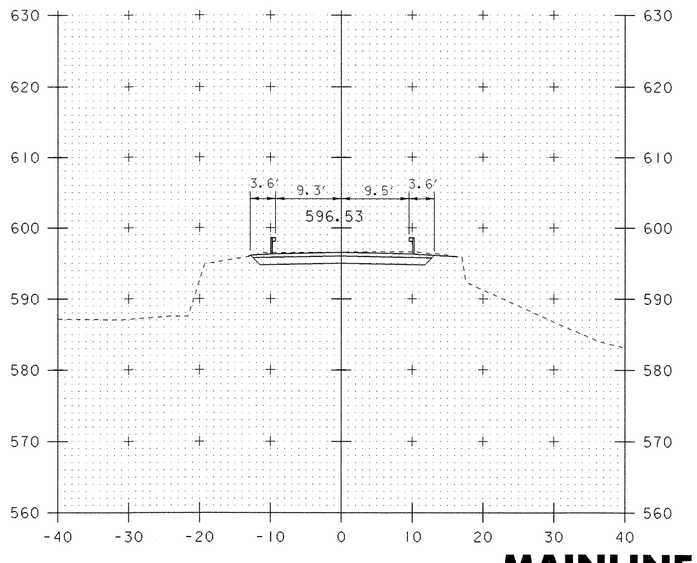
STA. 5+75
BEGIN PROJECT



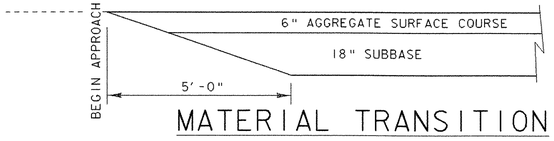
5+00



5+50
BEGIN
APPROACH



5+70



MATERIAL TRANSITION

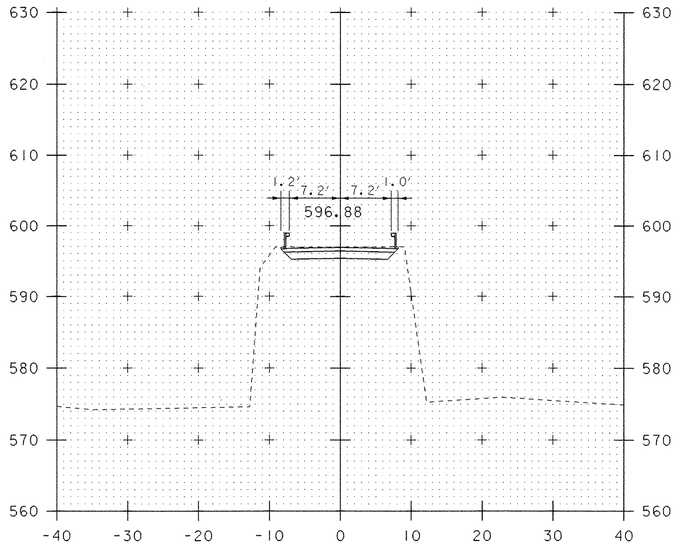
STA. 5+00 TO STA. 5+80

MAINLINE SECTIONS

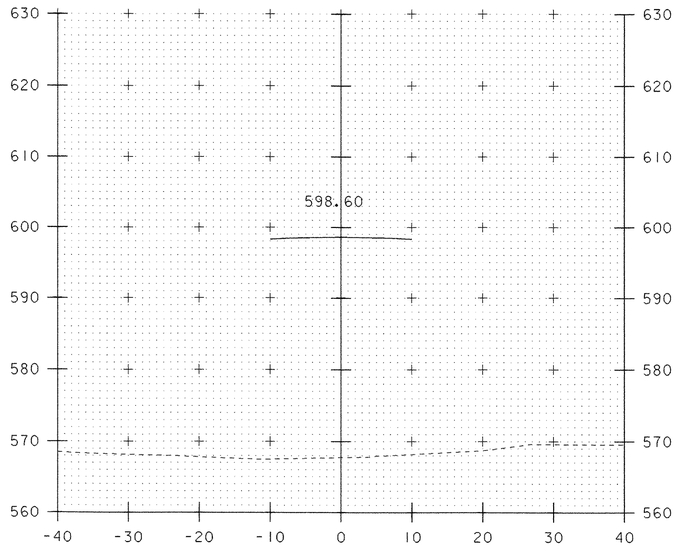
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsl.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234mxl.i

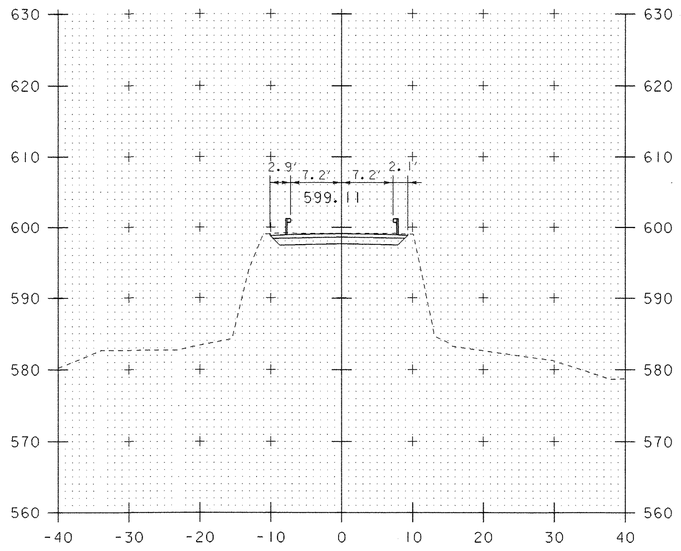
PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 51 OF 60



6+00

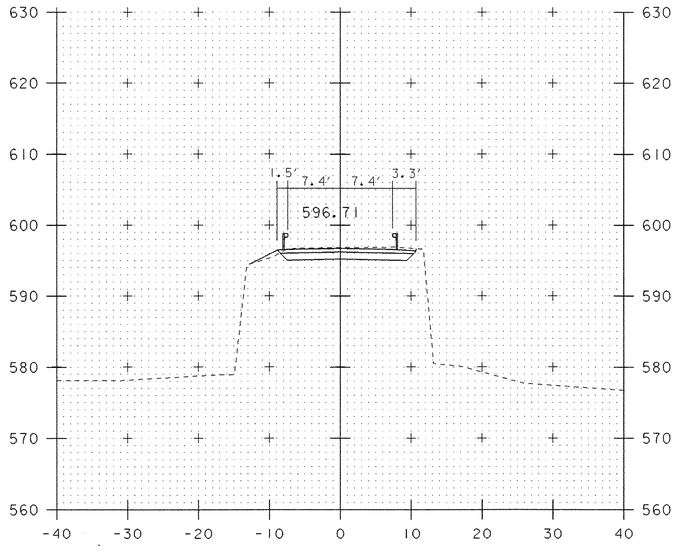


7+00

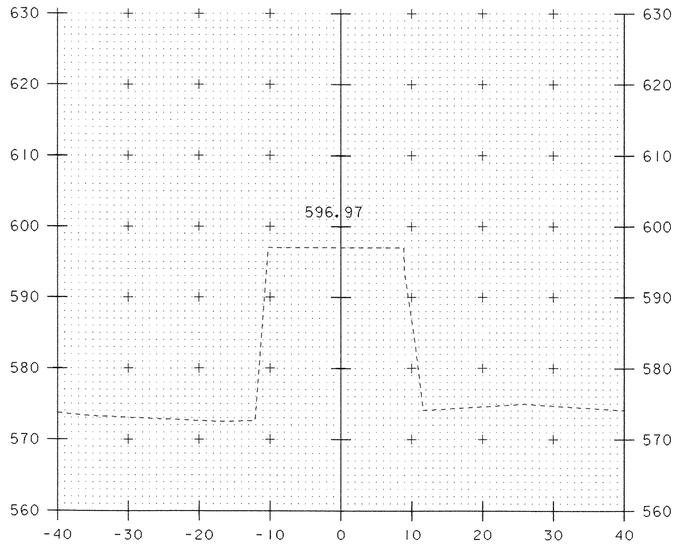


7+30

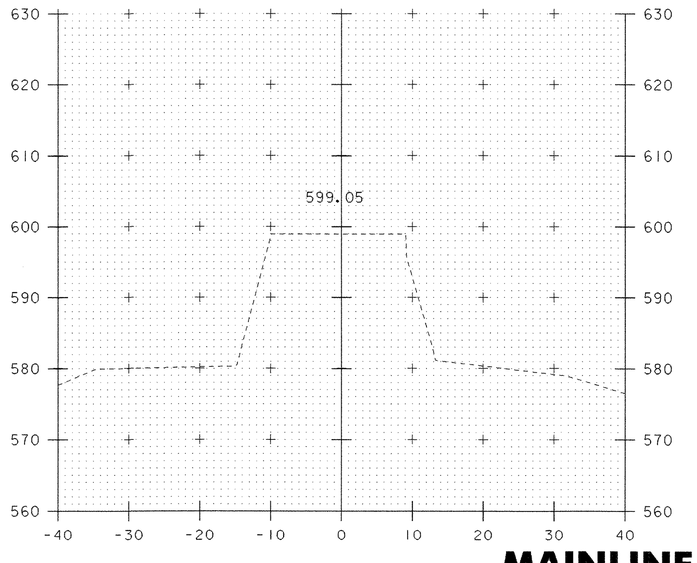
STA 7+28.12
END BRIDGE



5+90



6+05
BEGIN
BRIDGE



7+25.75

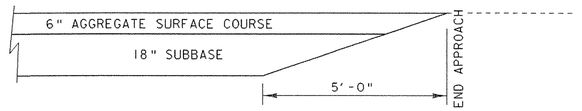
MAINLINE SECTIONS

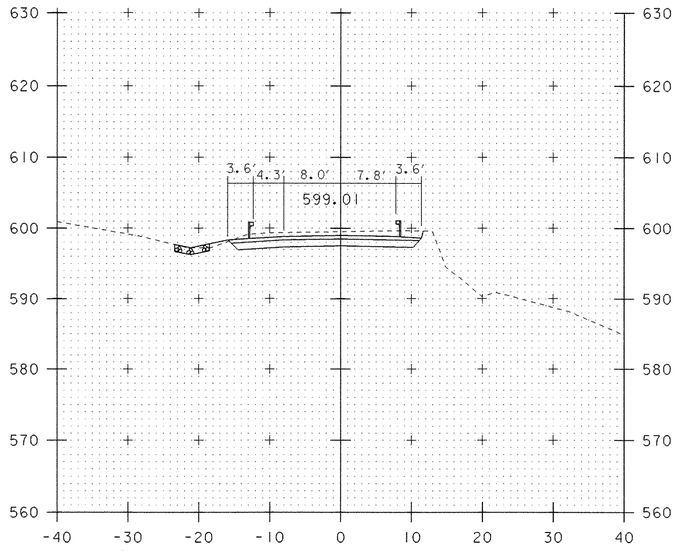
STA. 5+90 TO STA. 7+30

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

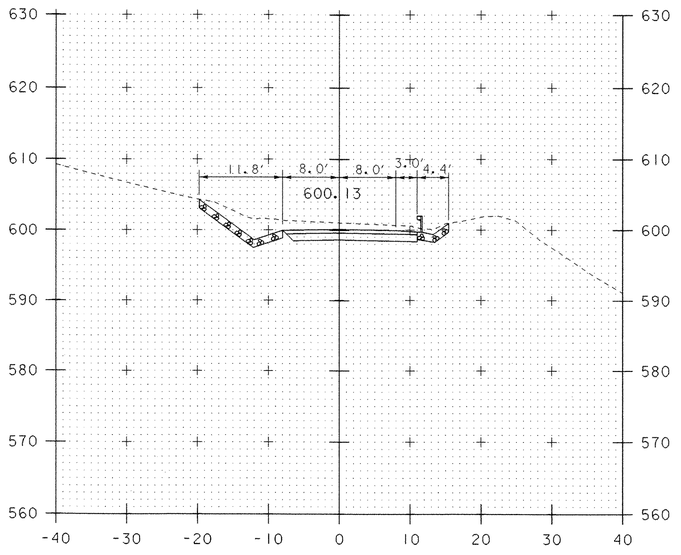
FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234mx2.i	SHEET 52 OF 60

MATERIAL TRANSITION

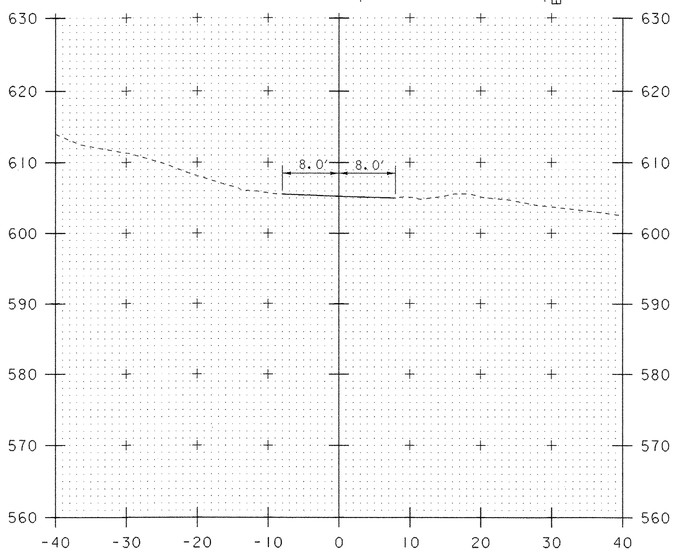




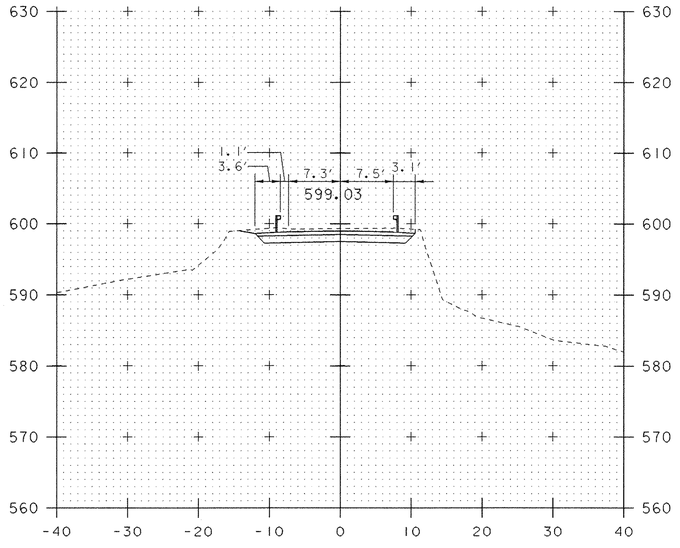
7+50
END PROJECT



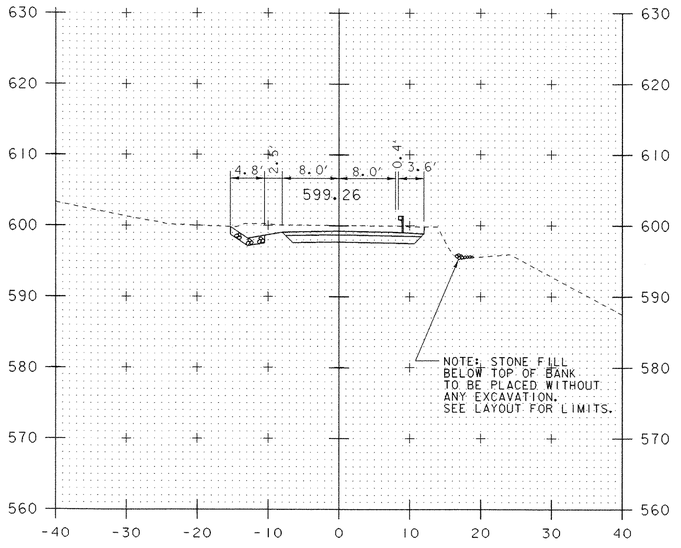
7+75



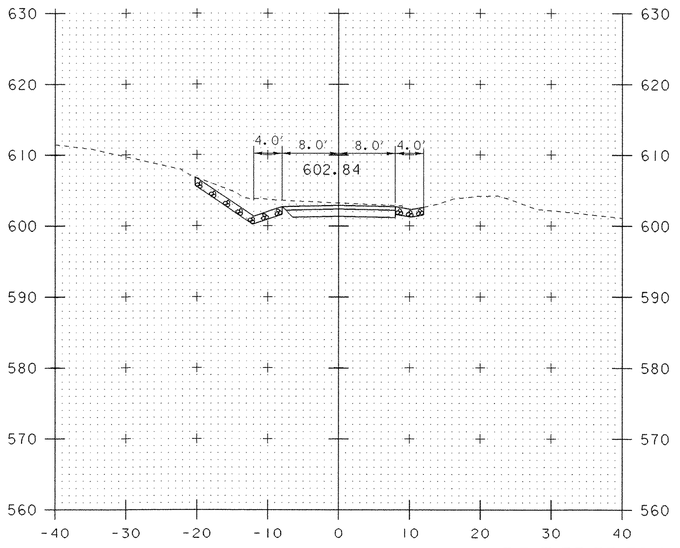
8+25
END APPROACH



7+40



7+60



8+00

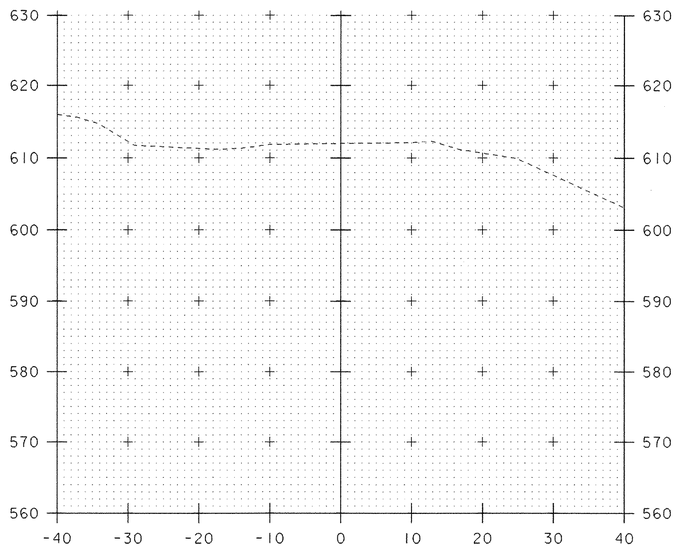
MAINLINE SECTIONS

STA. 7+40 TO STA. 8+25

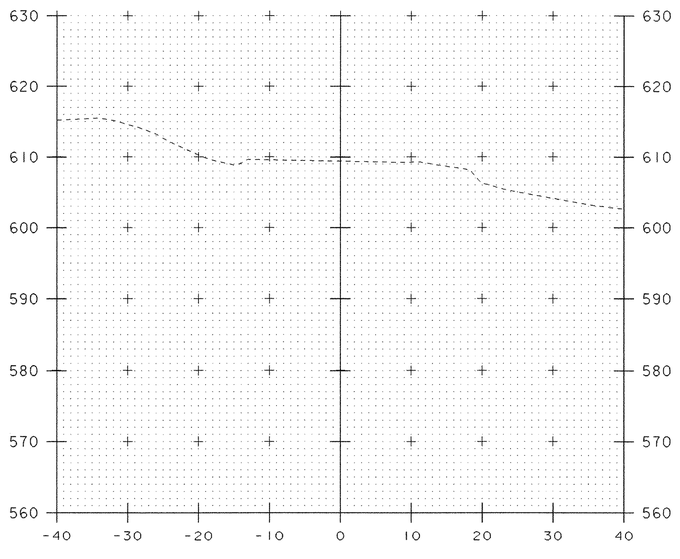
PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsl.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234mx3.1

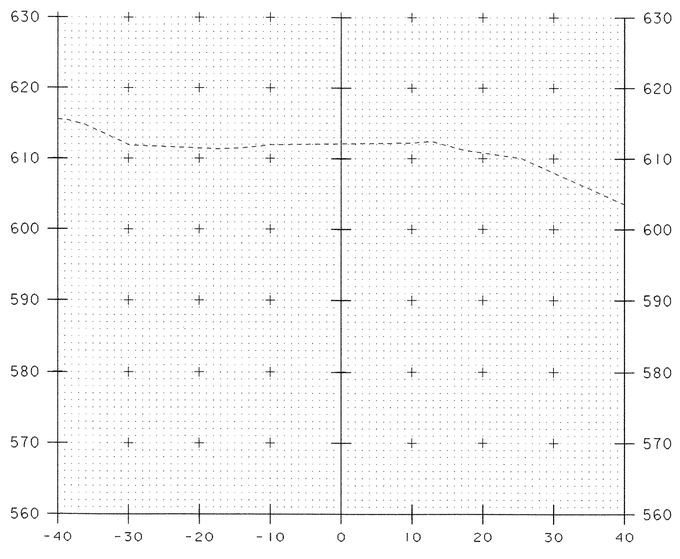
PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 53 OF 60



10+00



9+00



10+06

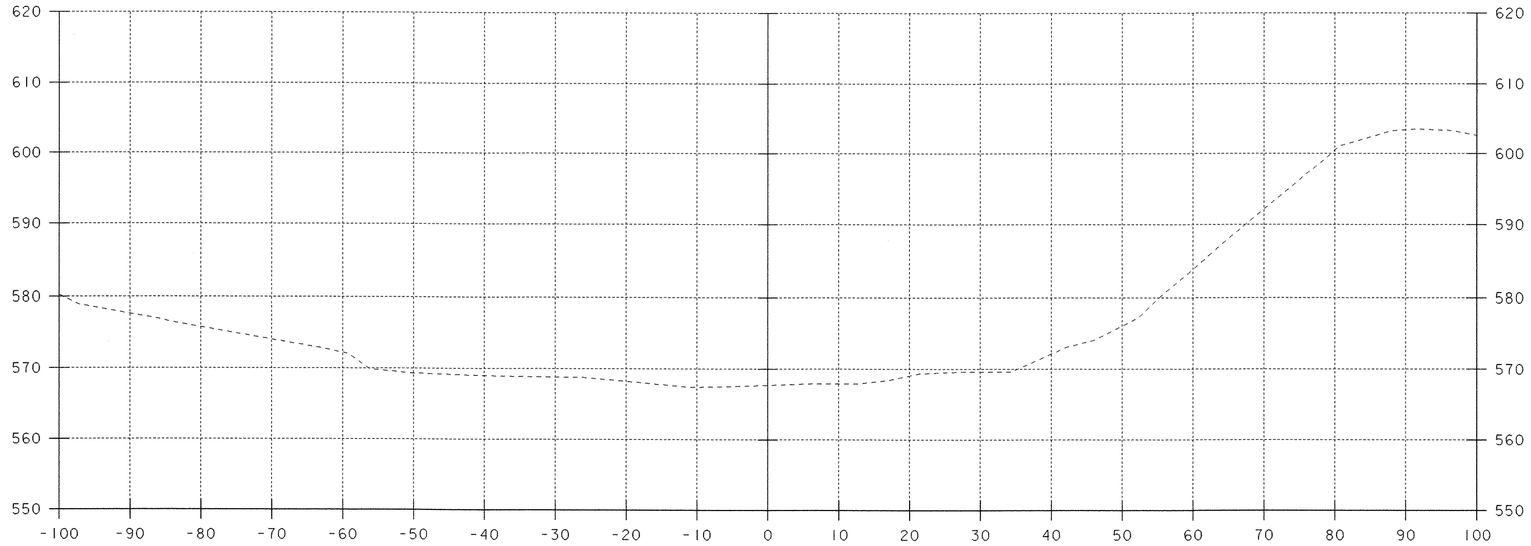
MAINLINE SECTIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

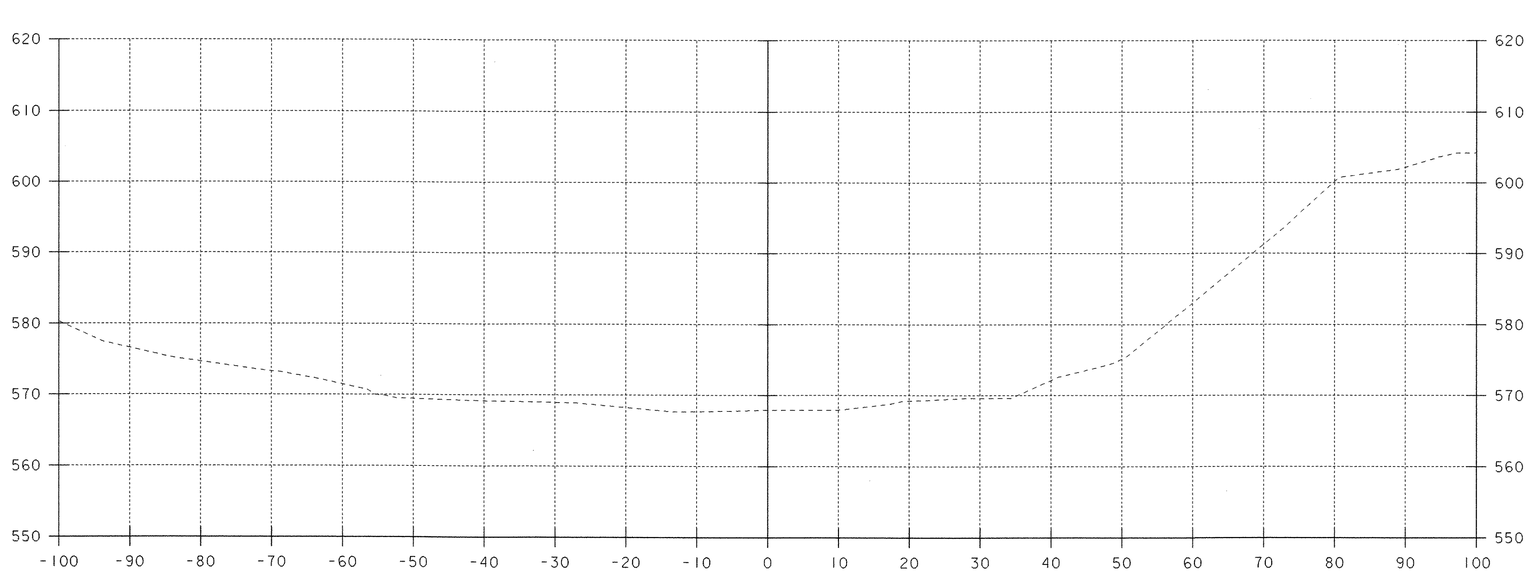
FILE NAME: /96j234/str/s96j234xsl.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sj234mx4.1

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 54 OF 60

STA. 9+00 TO STA. 10+06



50+60

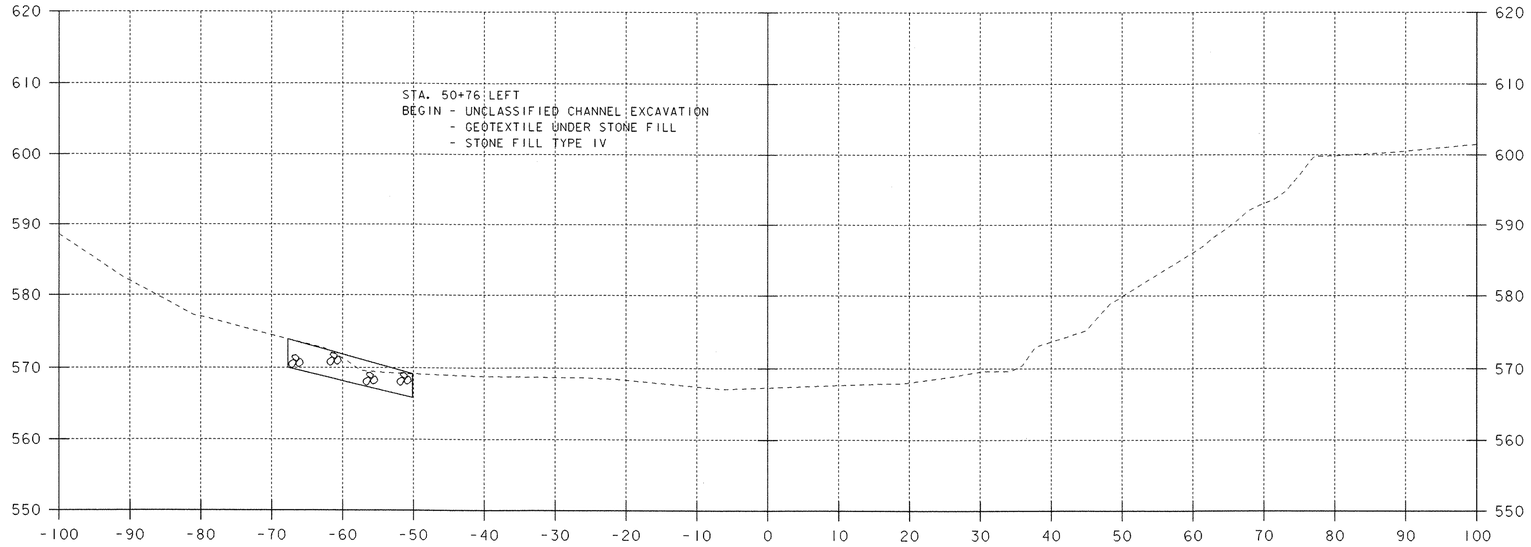


50+50

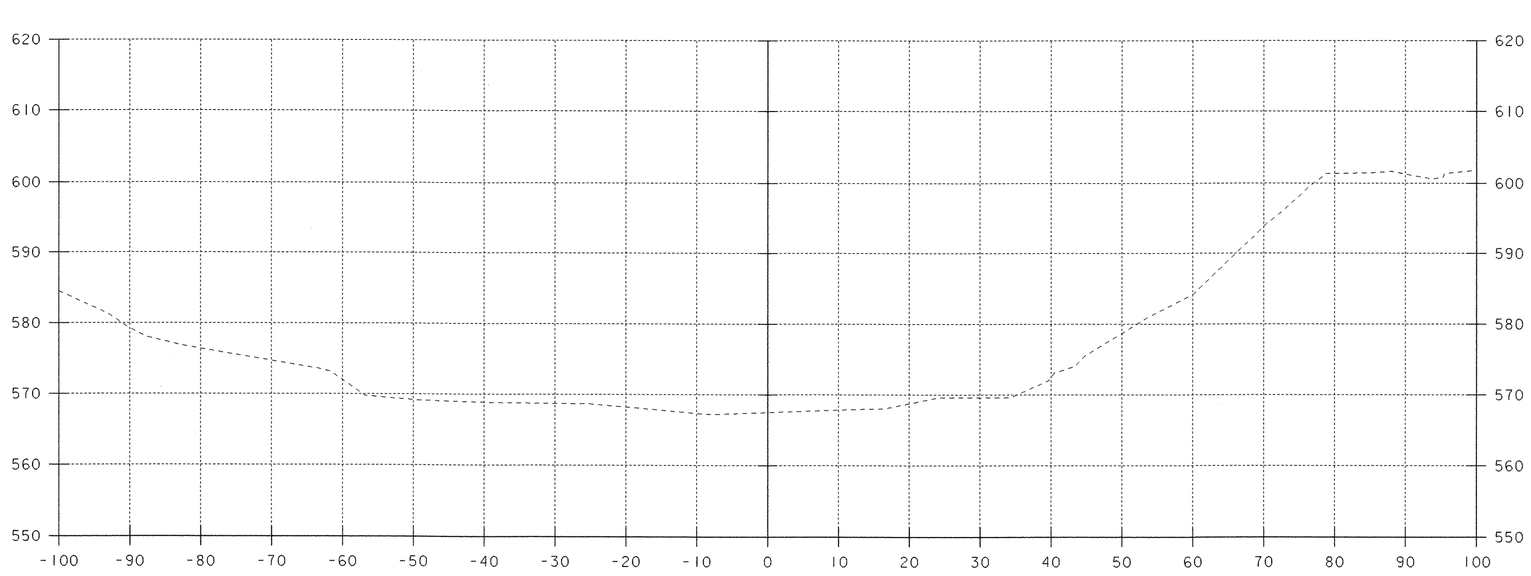
CHANNEL SECTIONS

STA. 50+50 TO STA. 50+60

PROJECT NAME: WEATHERSFIELD	
PROJECT NUMBER: BHO 1442(29)	
FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234cxl.i	SHEET 55 OF 60



50+80



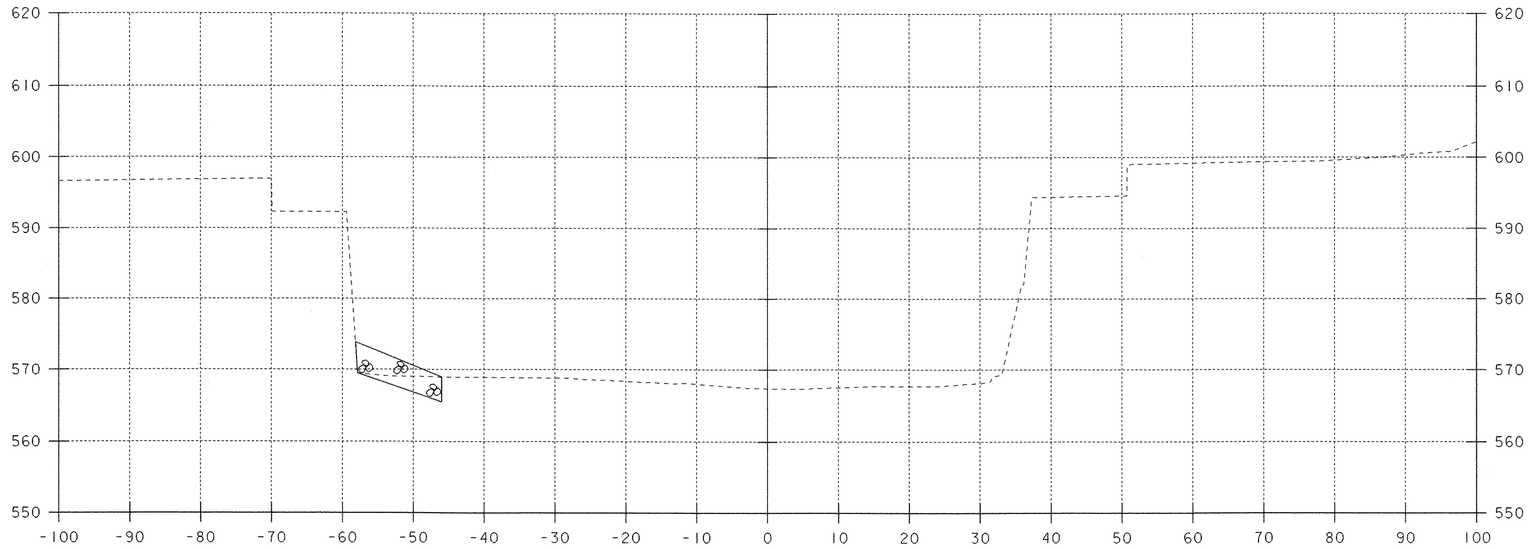
50+70

CHANNEL SECTIONS

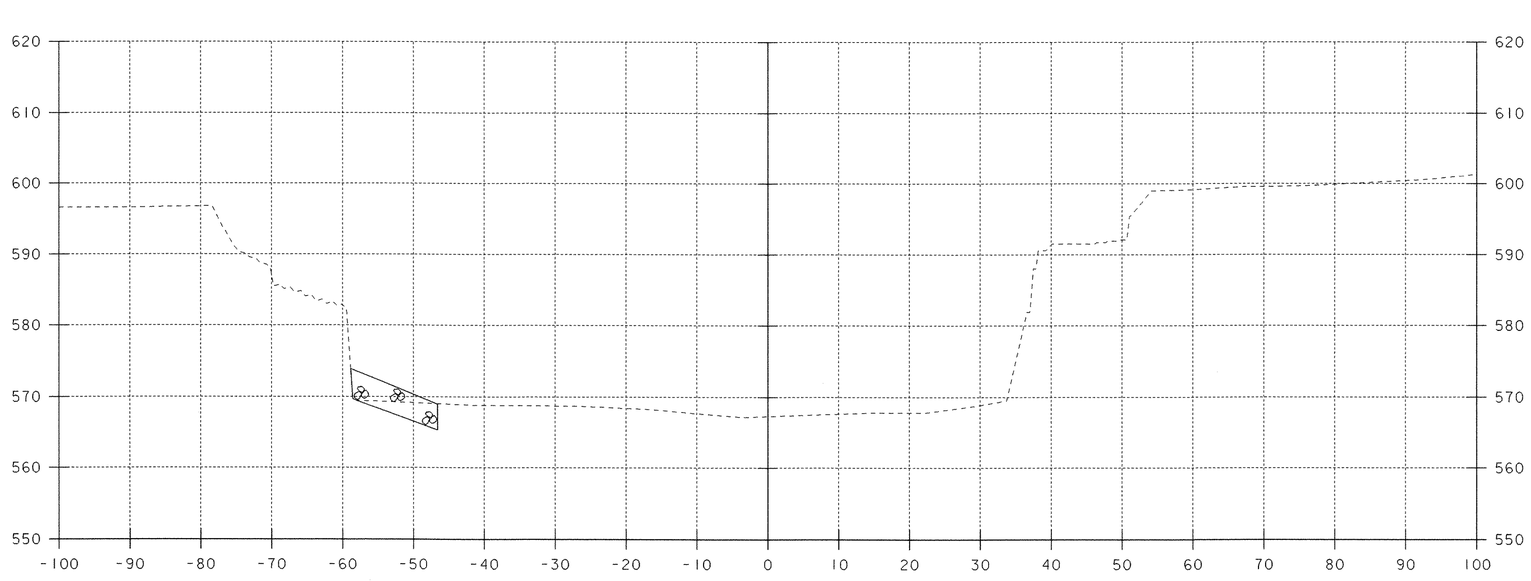
PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234cx2.1	SHEET 56 OF 60

STA. 50+70 TO STA. 50+80



51+00

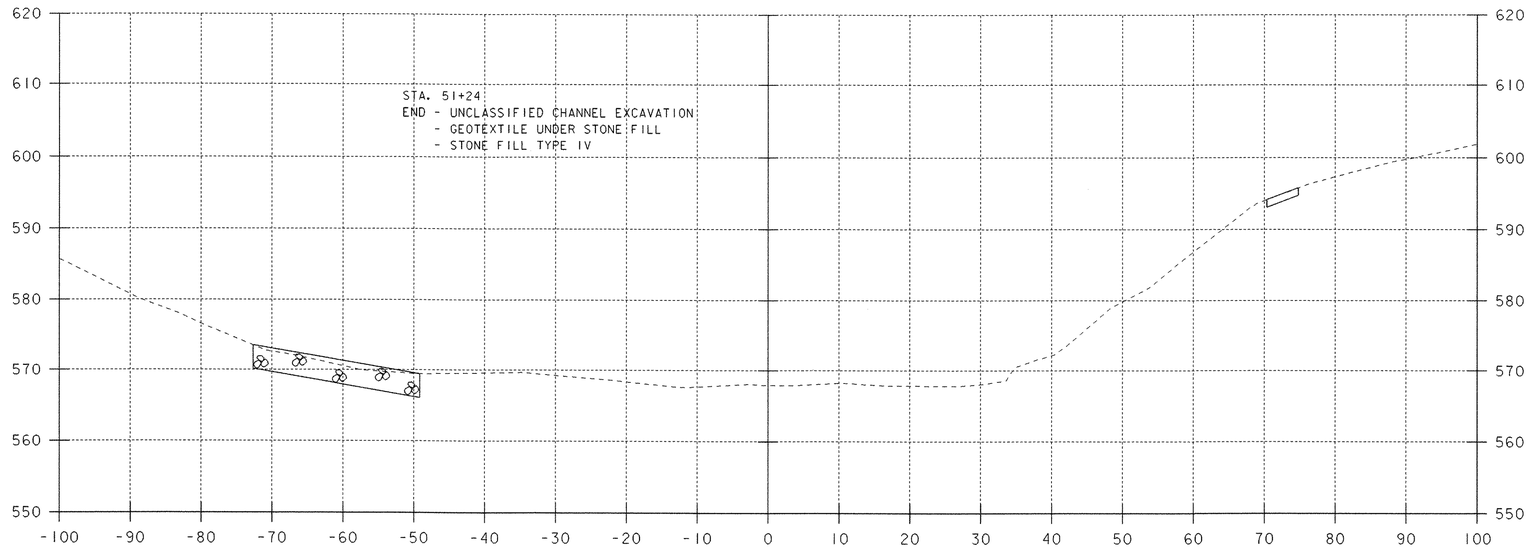


50+90

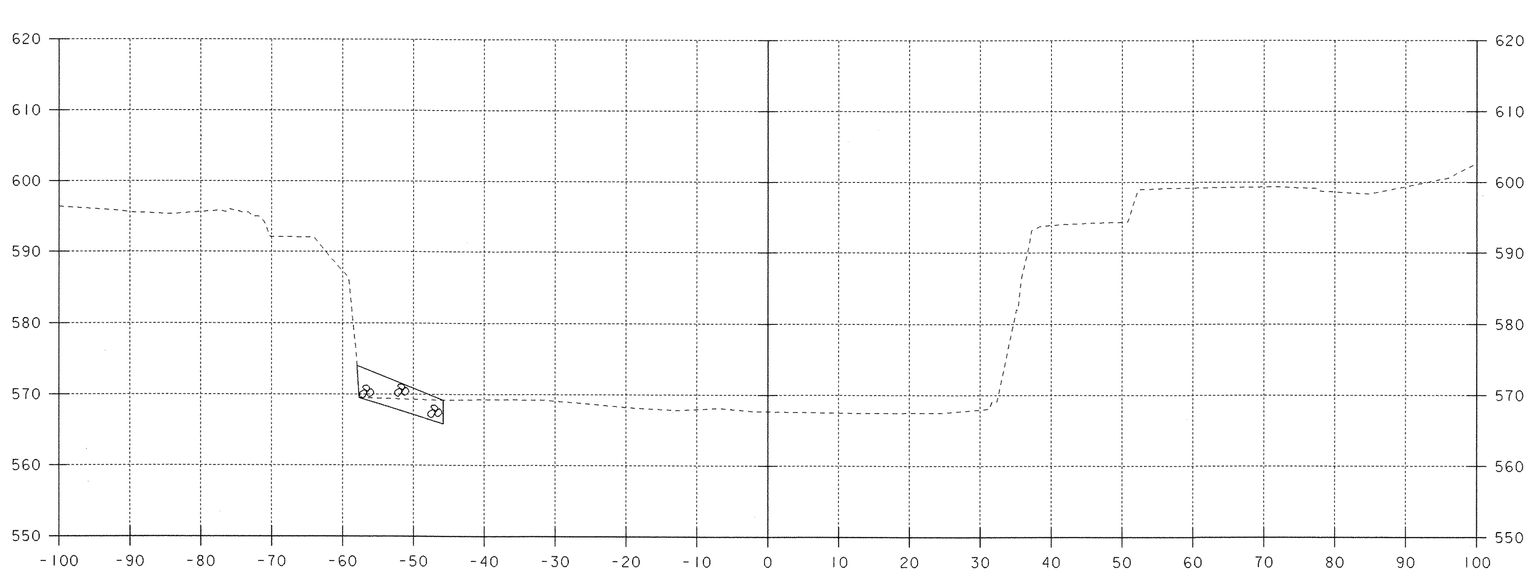
CHANNEL SECTIONS

STA. 50+90 TO STA. 51+00

PROJECT NAME: WEATHERSFIELD	
PROJECT NUMBER: BHO 1442(29)	
FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234cx3.1	SHEET 57 OF 60



51+20



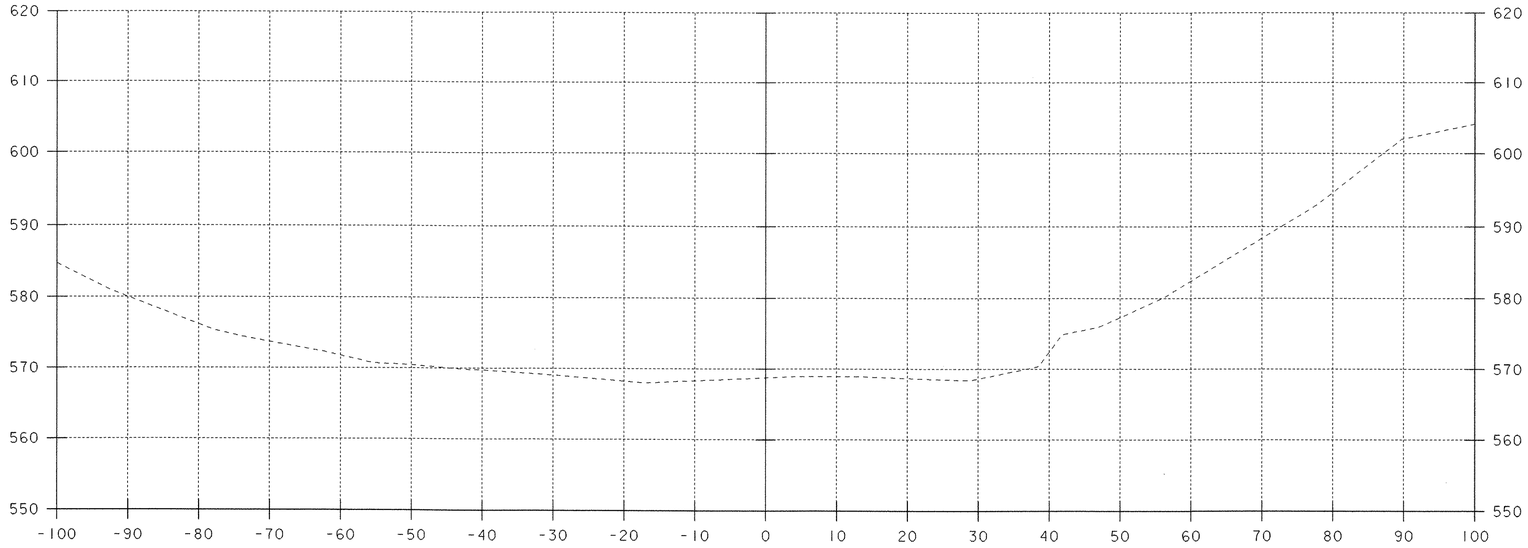
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CHANNEL SECTIONS

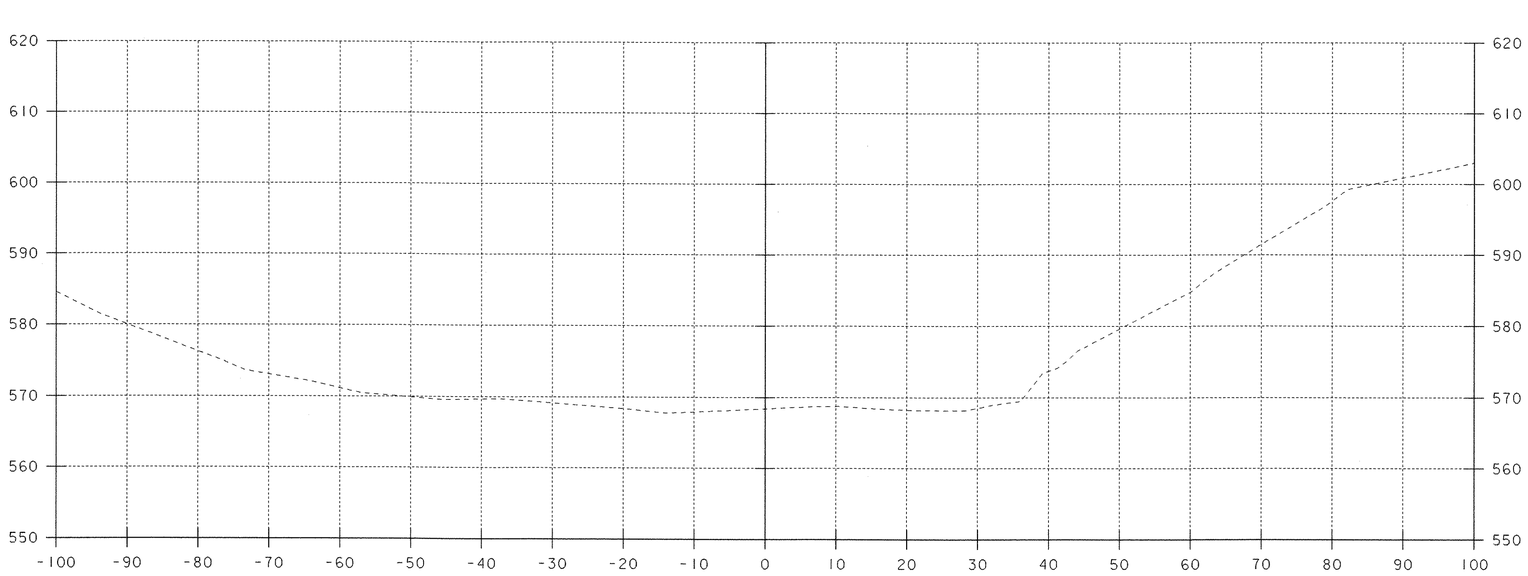
STA. 51+10 TO STA. 51+20

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234cx4.1	SHEET 58 OF 60



51+40



51+30

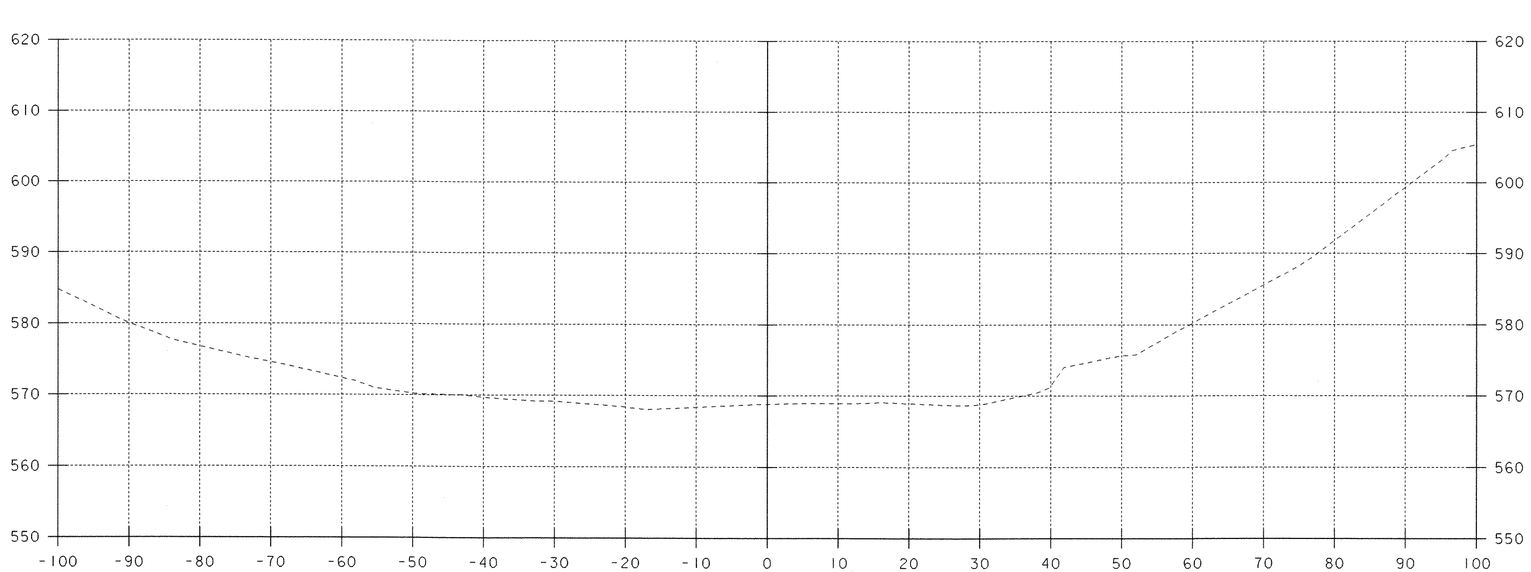
CHANNEL SECTIONS

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96J234/str/s96J234xsl.dgn
PROJECT LEADER: W. SYMONDS
DESIGNED BY: T. FILLBACH
sJ234cx5.1

PLOT DATE: 15-MAR-2007
DRAWN BY: G. SHANGRAW
CHECKED BY: T. SUMNER
SHEET 59 OF 60

STA. 51+30 TO STA. 51+40



51+50

STA. 51+50

CHANNEL SECTIONS

PROJECT NAME:	WEATHERSFIELD
PROJECT NUMBER:	BHO 1442(29)

FILE NAME: /96j234/str/s96j234xsl.dgn	PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. FILLBACH	CHECKED BY: T. SUMNER
sj234cx6.1	SHEET 60 OF 60