

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

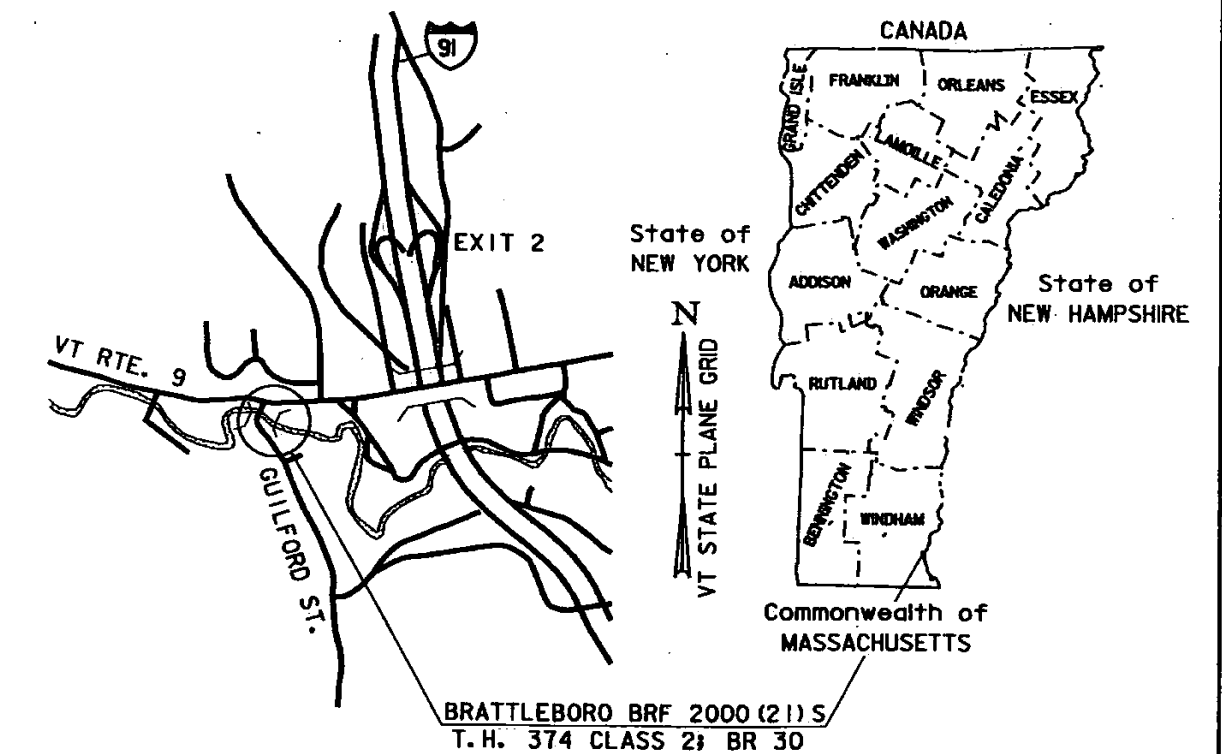
TOWN OF BRATTLEBORO
COUNTY OF WINDHAM

ROUTE NO : T.H. 374 CLASS 2 BRIDGE NO : 30

PROJECT LOCATION : BEGINNING AT A POINT ON EXISTING T.H. 374 APPROXIMATELY 0.11 KILOMETERS
SOUTHEAST OF THE EXISTING INTERSECTION OF T.H. 374 AND VT. 9 AND PROCEEDING
NORTHEASTERLY 110 METERS ALONG A NEW T.H. 374 ALIGNMENT.

PROJECT DESCRIPTION : REHABILITATION OF EXISTING COVERED BRIDGE AND THE CONSTRUCTION OF A NEW
BRIDGE DOWNSTREAM FROM THE EXISTING COVERED BRIDGE, WITH RELATED CHANNEL
AND ROADWAY APPROACH WORK.

LENGTH OF EXISTING STRUCTURE : 24.400 METERS.
LENGTH OF NEW STRUCTURE : 27.750 METERS.
LENGTH OF ROADWAY : 82.250 METERS.
LENGTH OF PROJECT : 110.000 METERS.
LENGTH OF ROW PROJECT : 96.77 METERS. (317.49')



R.O.W. PLANS

BEGIN R.O.W. PROJECT
BRF 2000 (21) S

STA. 10+067.93 26.93M(88.4') RT.

END R.O.W. PROJECT
BRF 2000 (21) S

STA. 10+164.70 11.05M(36.25') RT.

RIGHT-OF-WAY AGENT OF
PROJECT: FRANK J. MALNATI JR.

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	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY :
SURVEYED DATE :
DATUM
VERTICAL
HORIZONTAL

STA. 10+040.000
BEGIN PROJECT

STA. 10+071.125
BEGIN BRIDGE

STA. 10+150.000
END PROJECT

STA. 10+118.875
END BRIDGE

SCALE 1:500

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

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND
SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE
PLANS.

Metric

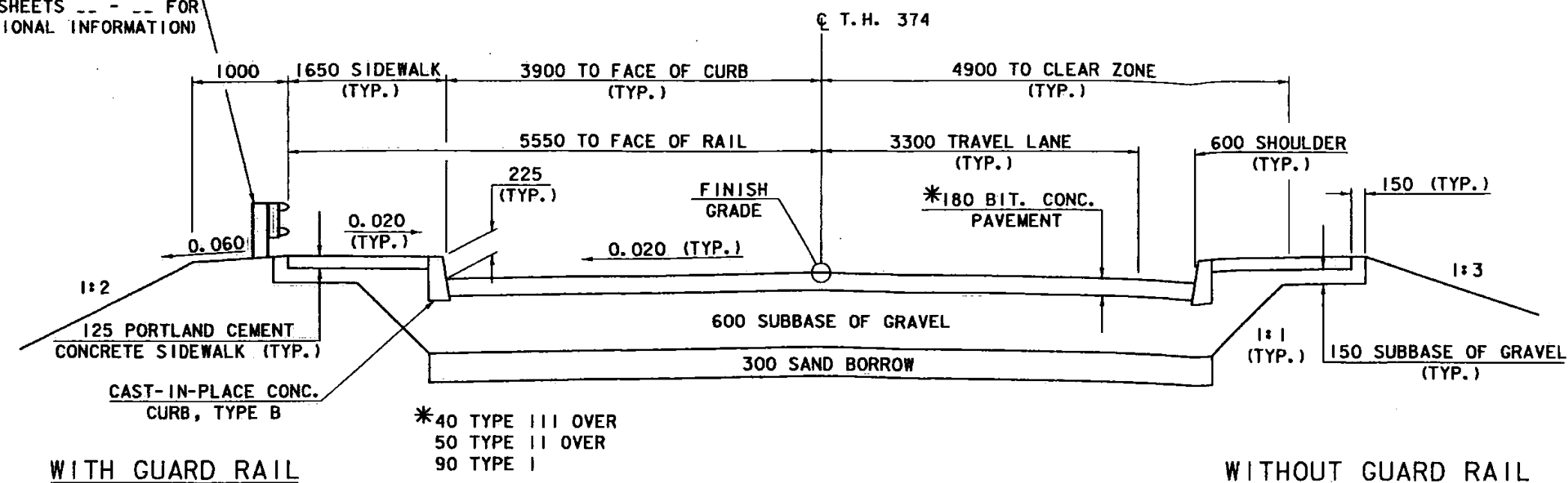
UNLESS NOTED OTHERWISE
STATIONS ARE IN KILOMETERS
ELEVATIONS ARE IN METERS
DIMENSIONS ARE IN MILLIMETERS

APPROVED DATE 5/2/05
Director of Program Development

APPROVED DATE 4/29/05
Chief of Right of Way

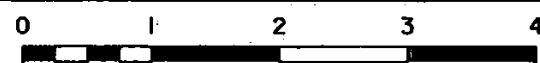
BRATTLEBORO
BRF 2000(21) S
R. O. W. SHEET 1 OF 15 SHEETS

ALUMINUM APPROACH RAIL
(SEE SHEETS --- FOR
ADDITIONAL INFORMATION)

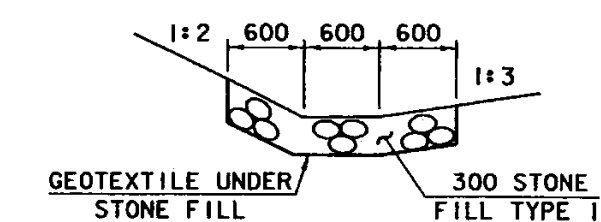


NOTE: UNDERDRAIN NOT SHOWN. SEE MAINLINE CROSS SECTIONS FOR ADDITIONAL INFORMATION

ROADWAY TYPICAL SECTION



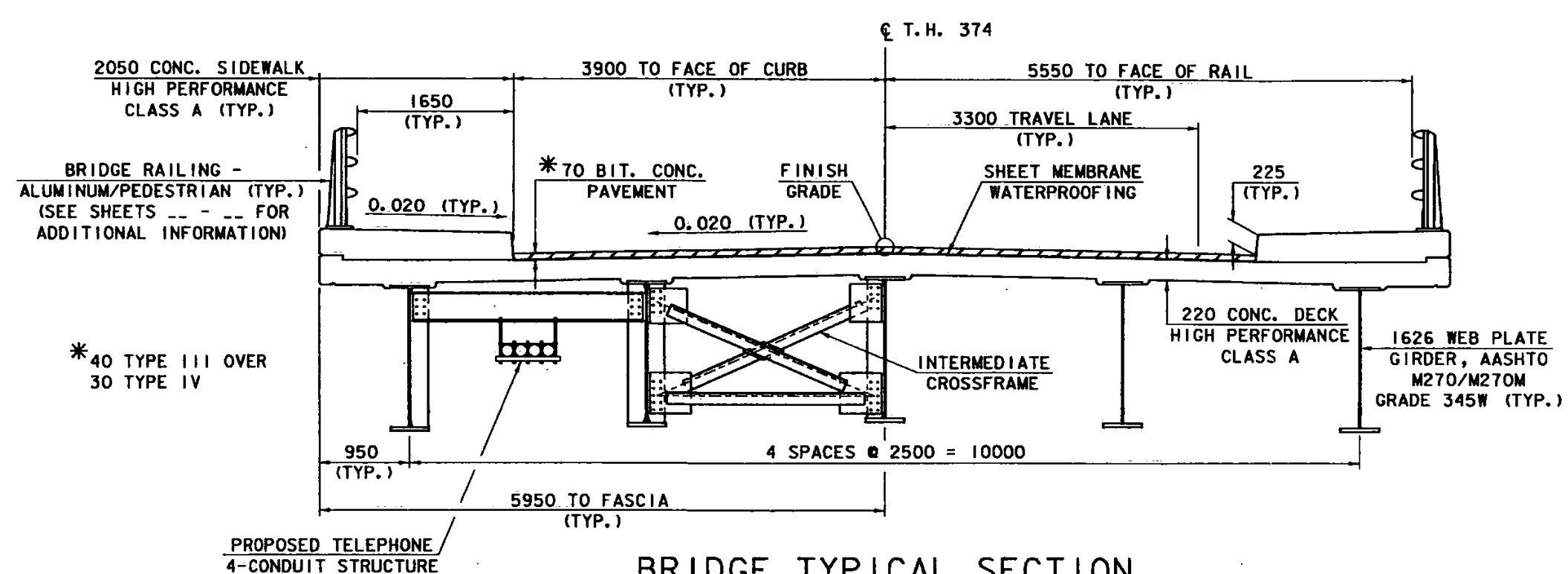
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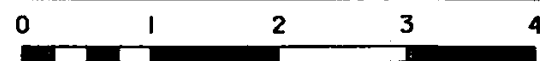
TYPICAL DITCH SECTION



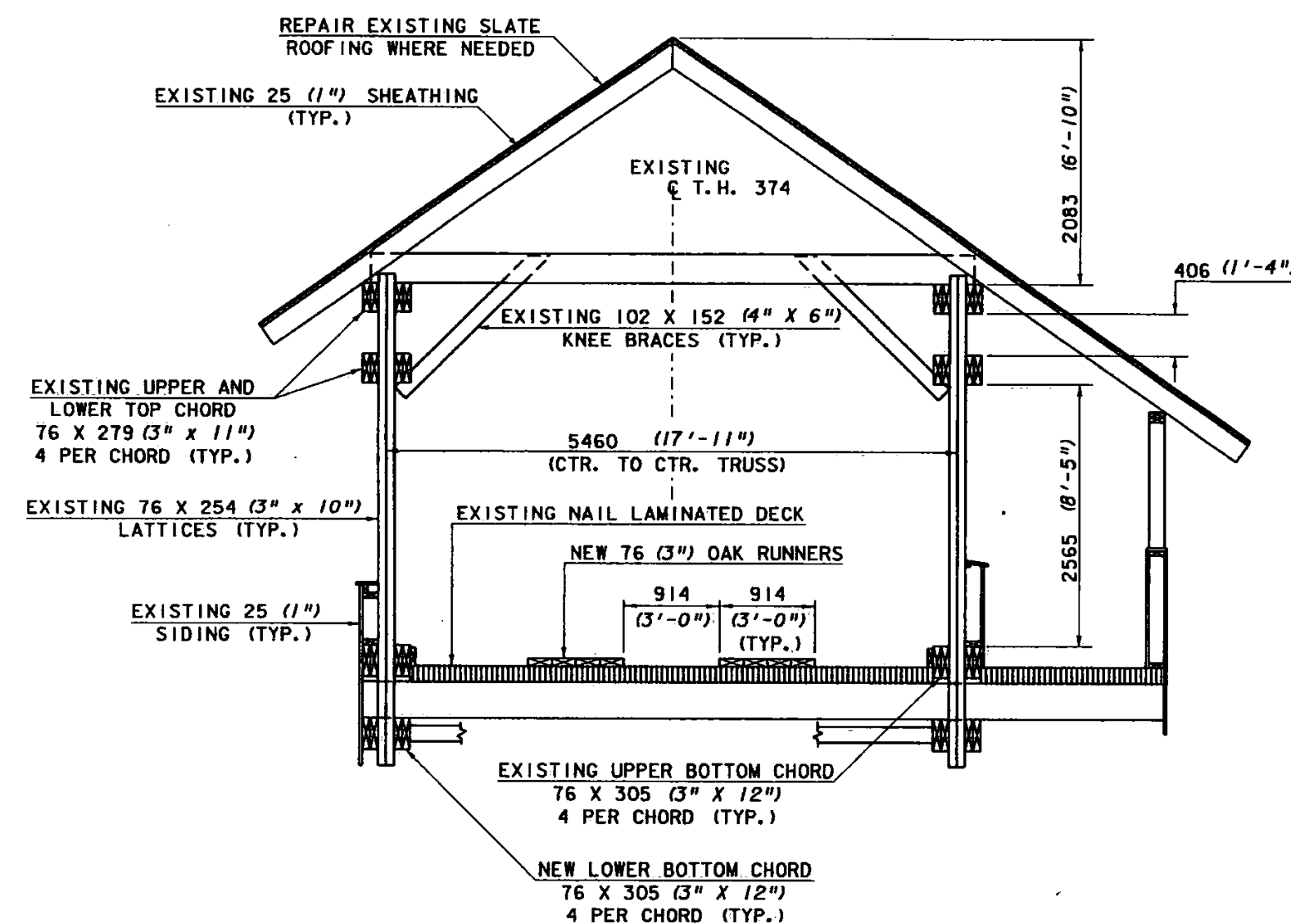
SCALE = 1:40



BRIDGE TYPICAL SECTION



SCALE = 1:40

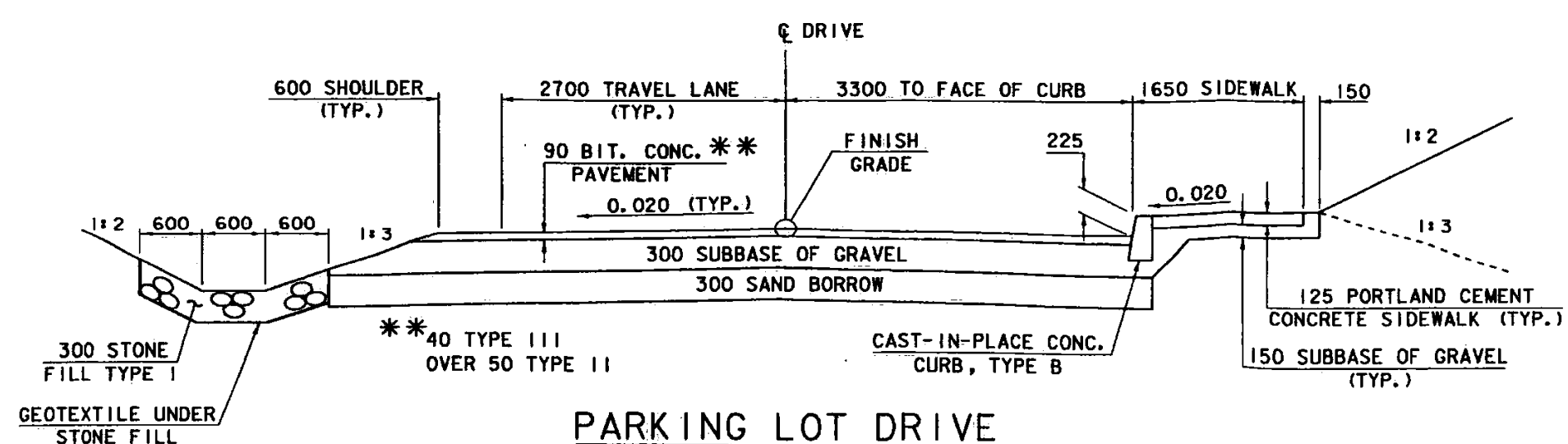


COVERED BRIDGE TYPICAL SECTION

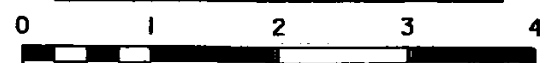


SCALE = 1:40

NOTE:
THE EXISTING COVERED BRIDGE WILL BE REHABILITATED FOR PEDESTRIAN AND BICYCLE TRAFFIC ONLY. ALL VEHICULAR TRAFFIC SHALL BE CARRIED BY THE NEW BRIDGE DOWNSTREAM FROM THE EXISTING BRIDGE. REHABILITATION OF THE COVERED BRIDGE TO INCLUDE REPAIRS TO THE BEARING BLOCKS, BOTTOM CHORD, TRUSS LATTICE MEMBERS, BRACING AND ROOFING. THE COVERED BRIDGE SHALL BE REHABILITATED USING SAME SIZED MEMBERS AND GEOMETRICS AS EXISTING.



PARKING LOT DRIVE TYPICAL SECTION

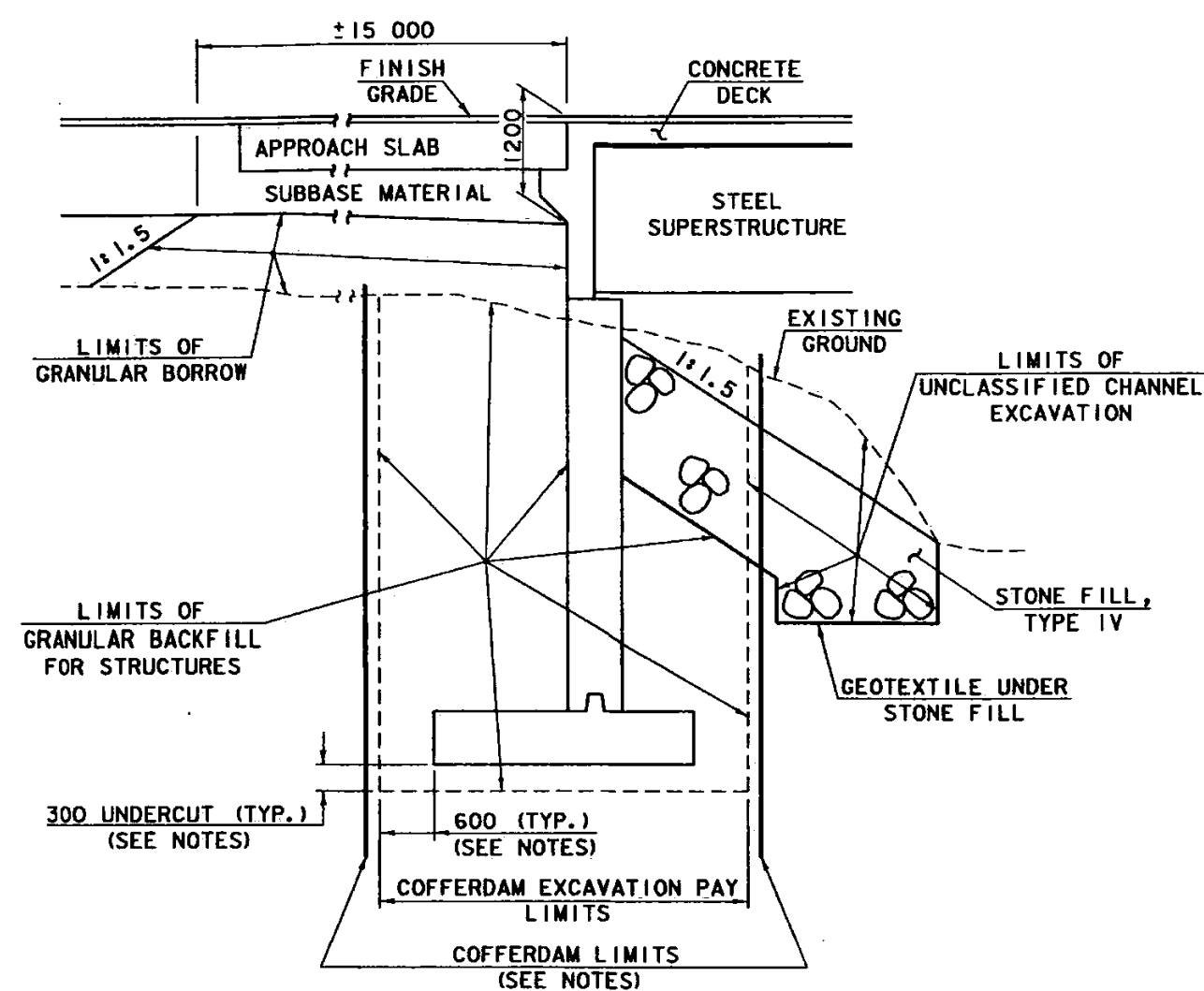


SCALE = 1:40

MATERIAL ITEM	TOLERANCE
PAVEMENT	±5 mm TOTAL THICKNESS
AGGREGATE SURFACE COURSE	± 10 mm
BASE COURSE	± 15 mm
SUBBASE	± 30 mm
SAND BORROW	± 30 mm
GRANULAR BORROW	± 30 mm

PROJECT TYPICAL SECTIONS (1)

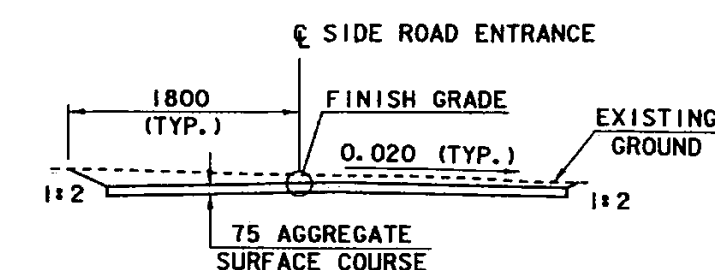
PROJECT NAME: BRATTLEBORO
 PROJECT NUMBER: BRF 2000(2)S
 FILE NAME: 96J228\Structures\sj228typ1.dwg PLOT DATE: 31-MAR-2004
 PROJECT MANAGER: R. R. WHITCOMB DRAWN BY:
 DESIGNED BY: CHECKED BY:
 R.O.W. SHEET 2 OF 15



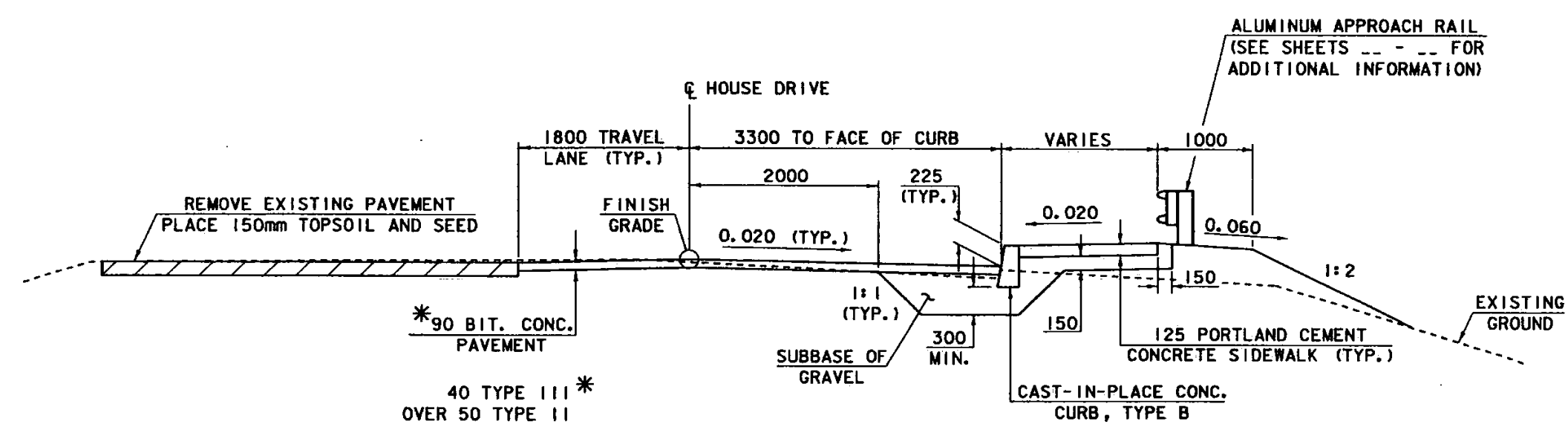
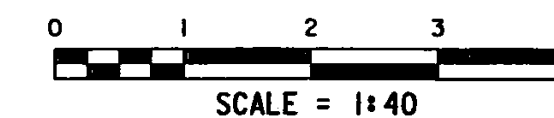
ABUTMENT EARTHWORK TYPICAL SECTION
(NOT TO SCALE)

NOTES

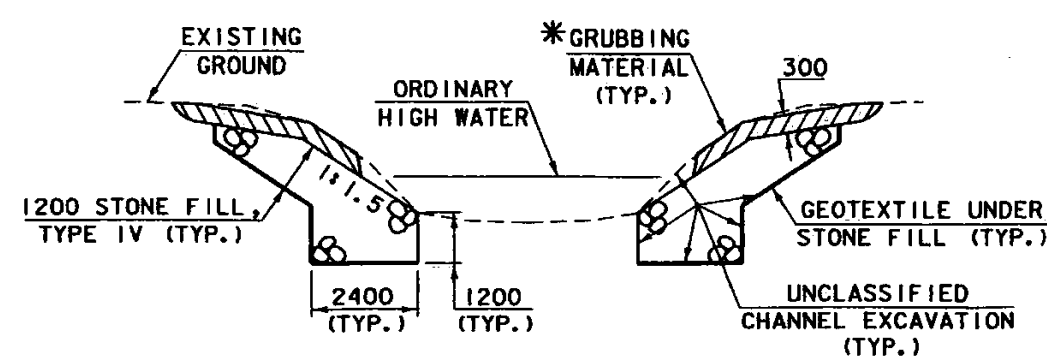
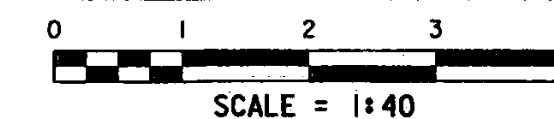
1. COFFERDAM SIZE TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 600 OUTSIDE THE PERIMETER OF THE FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
3. 300 UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.
5. SEE PROJECT NOTES (SHEET --) FOR ADDITIONAL INFORMATION.



SIDE ROAD ENTRANCE TYPICAL SECTION



HOUSE DRIVE TYPICAL SECTION



CHANNEL TYPICAL SECTION
(NOT TO SCALE)

*GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

PROJECT TYPICAL SECTIONS (2)

PROJECT NAME:	BRATTLEBORO
PROJECT NUMBER:	BRF 2000(2)S
FILE NAME:	96J228\Structures\sj228typ2.l
PROJECT MANAGER:	R. R. WHITCOMB
DESIGNED BY:	CHECKED BY:
	DRAWN BY:
	R.O.W. SHEET 3 OF 15

GPS CONTROL POINTS

HVCTRL #1

VT SURVEY DISK STAMPED
 " B95065 "
 N = 38968.9540
 E = 493532.1120
 ELEV. = 127.638

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1995 (CHR)
 GENERAL LOCATION, BRATTLEBORO, VT. AT THE EAST END OF THE VT ROUTE 9
 BRIDGE OVER I-91 IN BRATTLEBORO, SET IN THE TOP OF THE ABUTMENT AT THE
 NORTHEAST CORNER OF THE BRIDGE. THE MARK IS 9.8 M (32.2 FT) NORTH OF
 AND ABOUT LEVEL WITH THE CENTERLINE OF THE MEDIAN STRIP ON VT ROUTE 9,
 0.4 M (1.3 FT) WEST OF THE EAST END OF THE BRIDGE DECK, 0.6 M (2.0 FT)
 NORTH OF THE FACE OF THE BRIDGE CURB, AND 3.1 M (10.2 FT) SOUTHWEST OF
 A FIBERGLASS WITNESS POST.

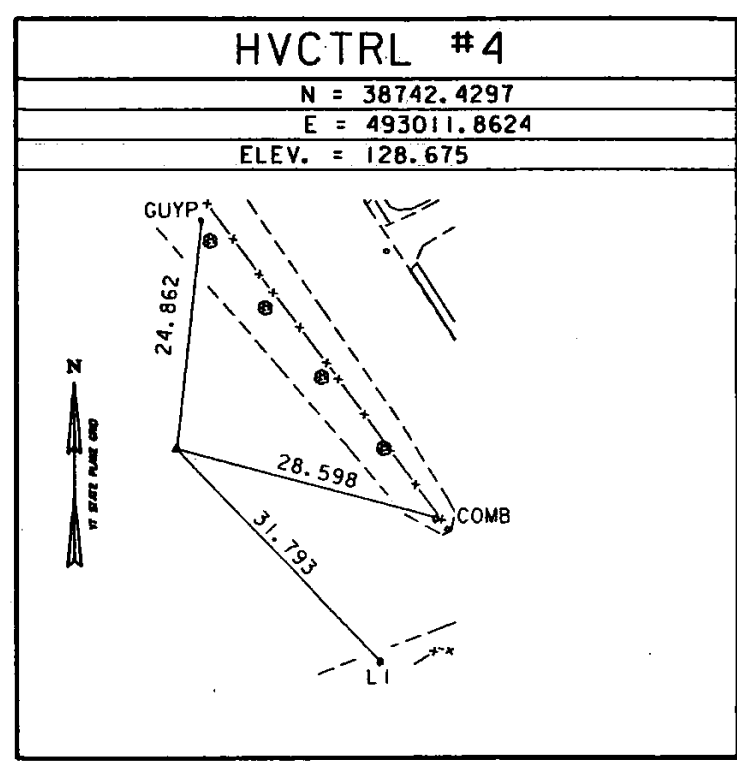
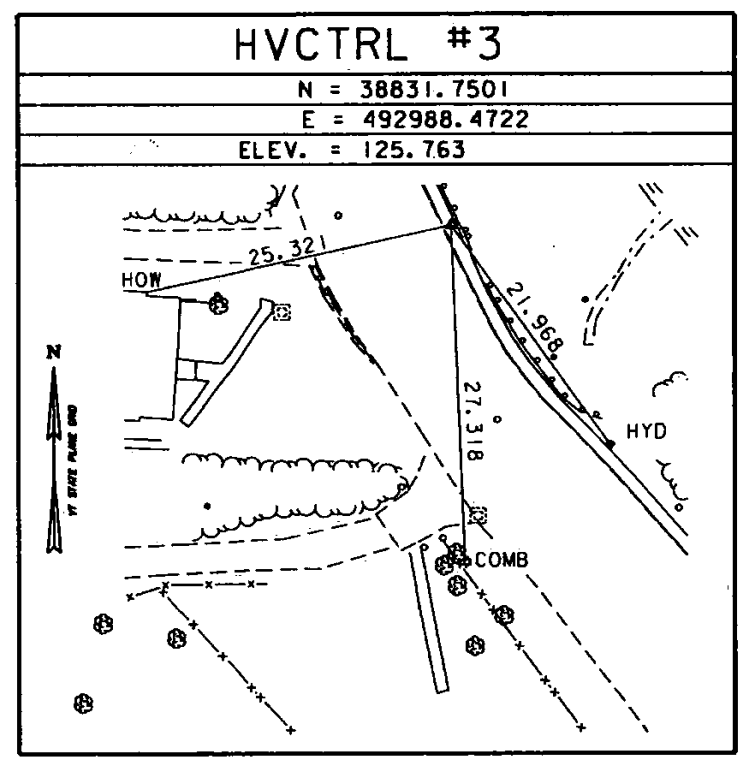
HVCTRL #2

VT SURVEY DISK STAMPED
 " A 14 "
 N = 38885.1910
 E = 493003.3870
 ELEV. = 127.763

RECOVERY NOTE BY VERMONT AGENCY OF TRANSPORTATION 1995 (CHR)
 GENERAL LOCATION, BRATTLEBORO, VT., ABOUT 1.5 MI (2.4 KM) WEST OF
 BRATTLEBORO, ABOUT 14.5 MI (23.3 KM) EAST OF WILMINGTON, AND ABOUT 8.5
 MI (13.7 KM) NORTH OF THE MASSACHUSETTS/VERMONT STATE LINE. TO REACH
 FROM THE EAST END OF THE VT ROUTE 9 BRIDGE OVER I-91 IN BRATTLEBORO GO
 WEST ALONG VT ROUTE 9 FOR 0.3 MI (0.5 KM) THE INTERSECTION OF GUILFORD
 STREET LEFT AT THE CREAMERY COVERED BRIDGE, AND THE MARK ON THE LEFT
 IN THE EAST POINT OF THE MOWED TRIANGLE FORMED BY THE INTERSECTION.
 THE MARK IS SET IN THE TOP OF A 15 CM SQUARE CONCRETE MONUMENT 2 CM
 BELOW GROUND SURFACE. IT IS 7.0 M (23.0 FT) SOUTH OF AND ABOUT LEVEL
 WITH THE CENTERLINE OF VT ROUTE 9, 10.0 M (32.8 FT) WEST OF THE
 CENTERLINE OF THE EAST LEG OF GUILFORD STREET, 19.5 M (64.0 FT) EAST
 OF CENTERLINE OF THE WEST LEG OF GUILFORD STREET, 23.2 M (76.1 FT)
 NORTH OF THE NORTHWEST CORNER OF THE COVERED BRIDGE, 14.2 M (46.6 FT)
 NORTH OF A FIRE HYDRANT, 9.5 M (31.2 FT) EAST OF A SEWER MANHOLE, AND
 0.4 M (1.3 FT) EAST OF A FIBERGLASS WITNESS POST AND ROAD SIGN.

DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT.

TRAVERSE TIES



MAIN TRAVERSE COMPLETED SEP. 17 1997. SURVEYED BY R. GILMAN, P.C. & T. COMPANION

ALIGNMENT

Alignments Current as of 4/27/09

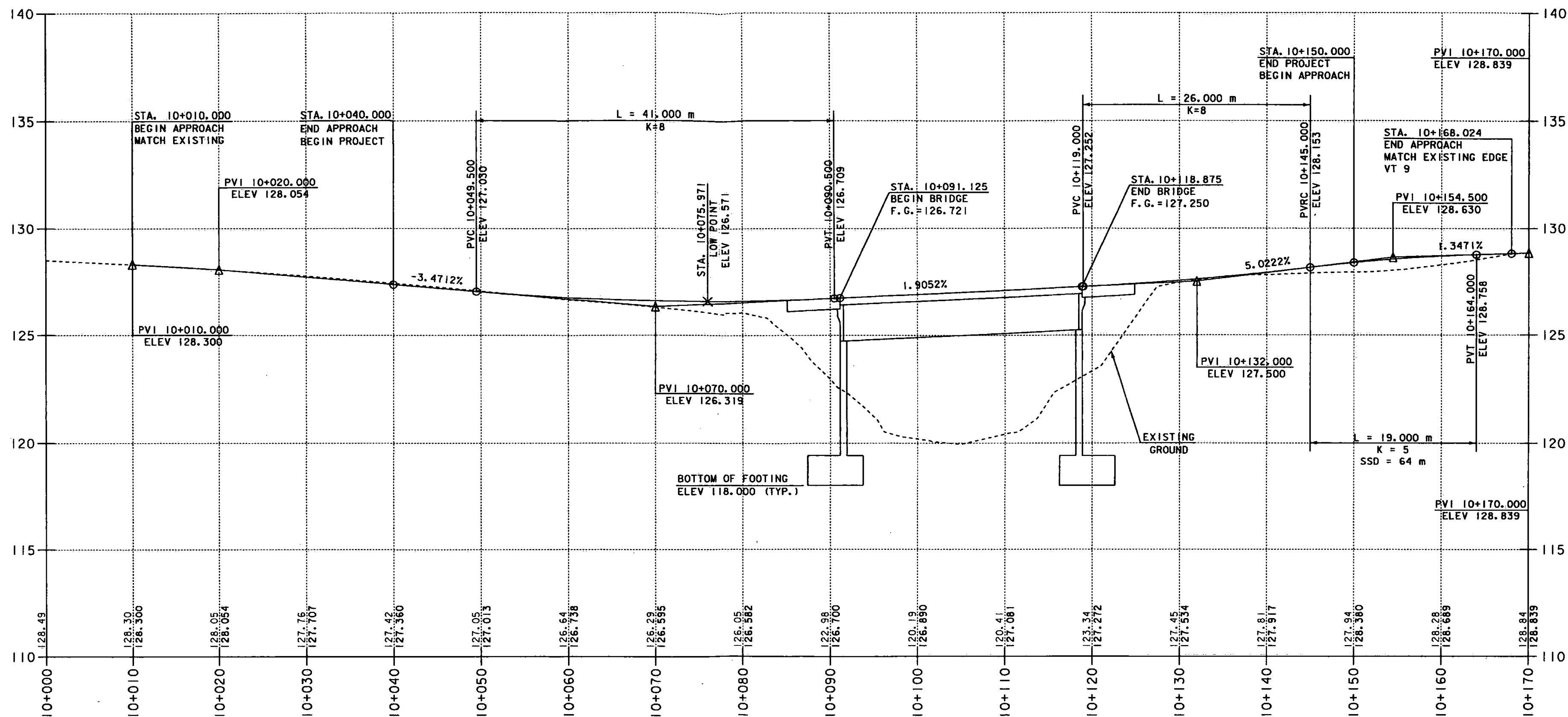
Existing VT 9		
STATION	NORTHING	EASTING
POB 3+000.000	38901.9370	492963.6000
PC 3+024.473	38895.7303	492987.2731
PT 3+091.511	38889.8117	493053.7342
Radius: 200.000 Delta: 19°12'17.42" Left Degree of Curvature (Arc): 8°43'54.82" Length: 67.038 Tangent: 33.836 Chord: 66.724 Middle Ordinate: 2.802 External: 2.842 POE 3+142.701 38893.8400 493104.7660		
Market Drive		
STATION	NORTHING	EASTING
POB 20+000.000	38807.3311	493000.0152
PC 20+011.452	38814.6708	492991.2247
PT 20+021.099	38818.1360	492982.3988
Radius: 15.000 Delta: 36°50'58.32" Left Degree of Curvature (Arc): 116°25'30.93" Length: 9.647 Tangent: 4.937 Chord: 9.482 Middle Ordinate: 0.769 External: 0.810 POE (13) 20+031.111 38818.6619 492972.4010		

Guilford St		
STATION	NORTHING	EASTING
POB 10+000.000	38741.0840	493043.7950
PC 10+066.131	38796.5965	493007.8557
PT 10+089.376	38818.2707	493009.1702
Radius: 18.300 Delta: 72°46'49.32" Right Degree of Curvature (Arc): 95°25'49.94" Length: 23.246 Tangent: 13.487 Chord: 21.714 Middle Ordinate: 3.569 External: 4.433 PC 10+132.272 38851.1974 493036.6631 PT 10+153.917 38871.1991 493043.6250		
Radius: 30.000 Delta: 41°20'21.08" Left Degree of Curvature (Arc): 58°12'45.46" Length: 21.645 Tangent: 11.318 Chord: 21.179 Middle Ordinate: 1.931 External: 2.064 POE 10+171.982 38889.2580 493043.1590		

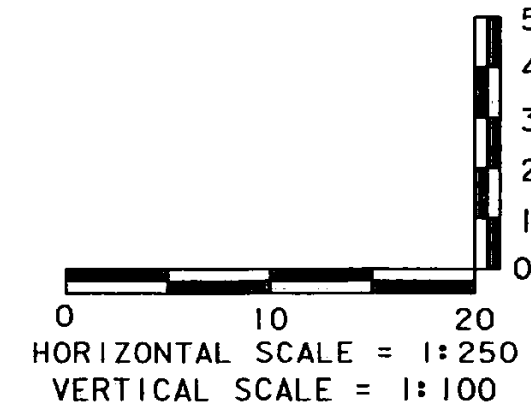
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD-83 (92)
ADJUSTED	NO
TYPE	N/A

PROJECT NAME:	Brattleboro	PLOT DATE:	13-MAY-2011
PROJECT NUMBER:	BRF 2000 (2) S	DRAWN BY:	R. Bullock
PROJECT LEADER:	Roger Whitcomb	CHECKED BY:	C. Carlson
DESIGNED BY:	C. Carlson	ROW SHEET	4A OF 15

Profile Along New Centerline T.H. 374 (Guilford Street)



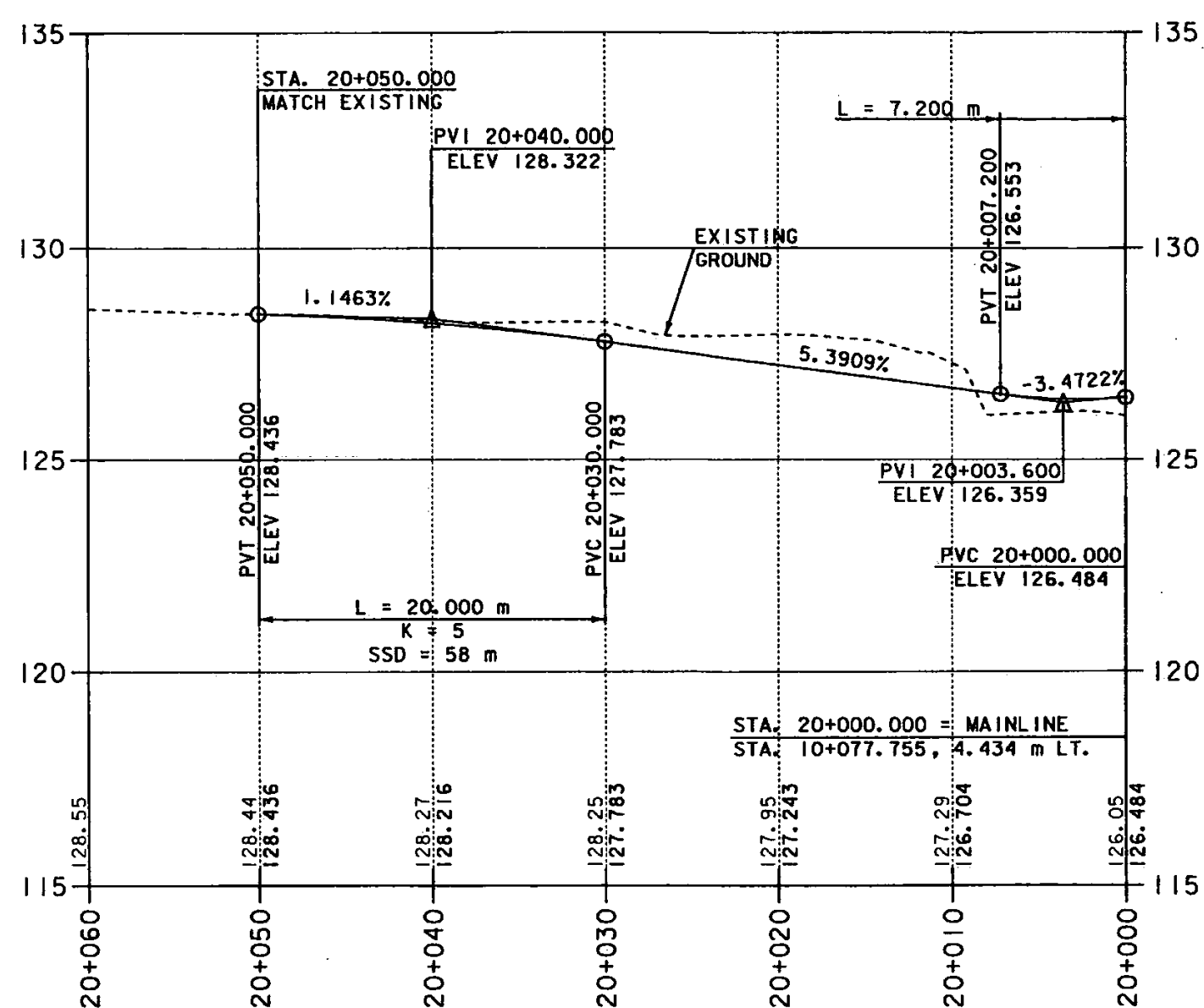
NOTE:
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE EXISTING GROUND.
ELEVATIONS SHOWN TO THE NEAREST THOUSANDTH ARE FINISHED GRADE.



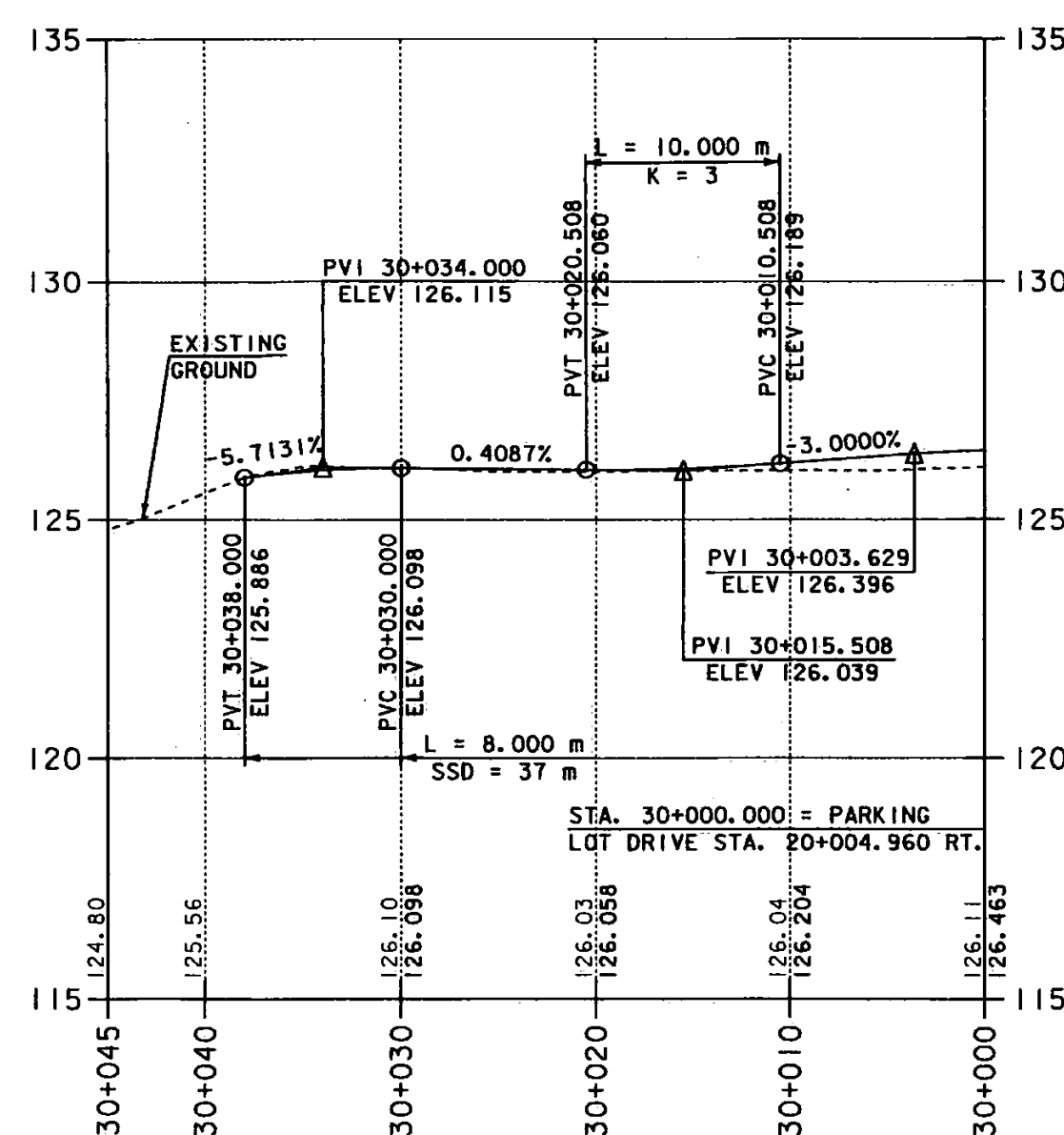
MAINLINE PROFILE

PROJECT NAME:	BRATTLEBORO	PLOT DATE:	31-MAR-2004
PROJECT NUMBER:	BRF 2000(2)S	DRAWN BY:	
FILE NAME:	96J228\Structures\J228pr1.l	CHECKED BY:	
PROJECT MANAGER:	R.R. WHITCOMB		
DESIGNED BY:			
		R.O.W. SHEET	5 OF 15

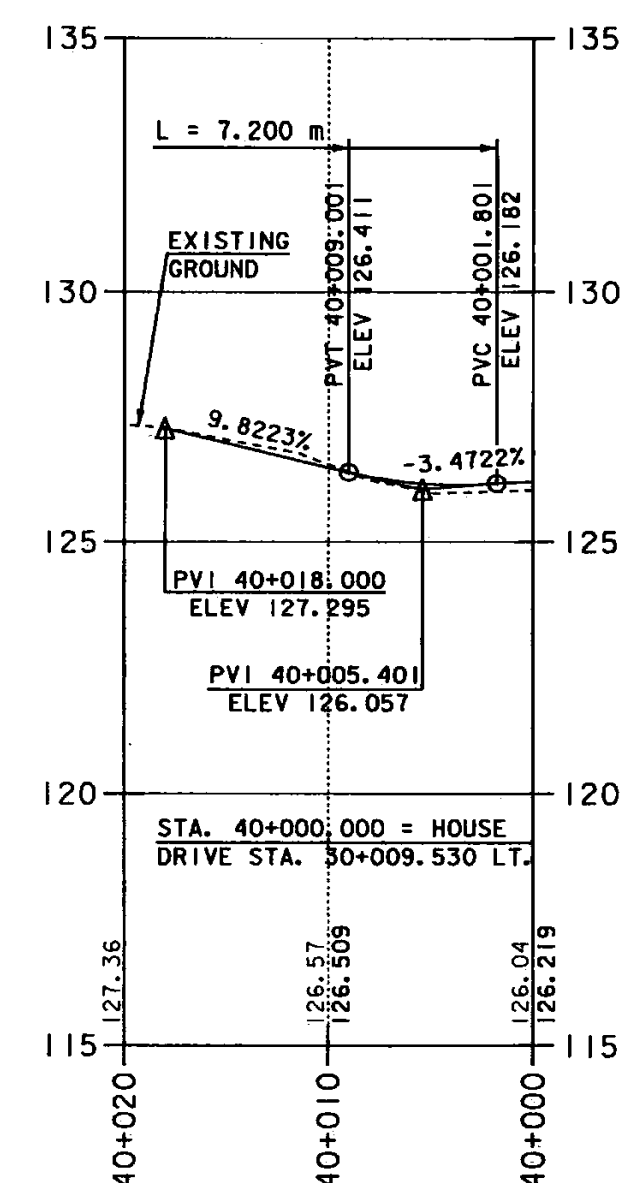
Parking Lot Drive Profile Mainline Sta. 10 + 077.755 Lt.



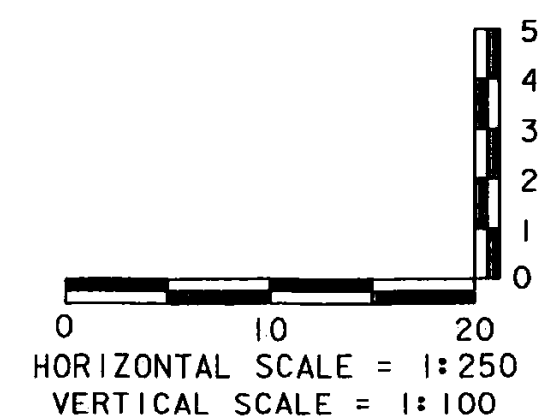
House Drive Profile Parking Lot Drive Sta. 20 + 004.960 Lt.



Side Road Entrance Profile House Drive Sta. 30 + 009.530 Lt.



NOTE:
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE EXISTING GROUND.
ELEVATIONS SHOWN TO THE NEAREST THOUSANDTH ARE FINISHED GRADE.



DRIVE AND SIDE ROAD PROFILES

PROJECT NAME:	BRATTLEBORO	FILE NAME:	96J228\Structures\96J228pr2.1	PLOT DATE:	31-MAR-2004
PROJECT NUMBER:	BRF 2000(2)S	PROJECT MANAGER:	R.R. WHITCOMB	DRAWN BY:	
DESIGNED BY:		CHECKED BY:			
			R.O.W. SHEET 6 OF 15		

PRELIMINARY INFORMATION SHEET



INDEX OF SHEETS

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA Date: 05/02/01

DRAINAGE AREA: 68 sq km
 CHARACTER OF TERRAIN: Forested, rolling to hilly
 STREAM CHARACTERISTICS: Straight with some moderate meandering
 NATURE OF STREAMBED: gravel, cobbles, boulders, some ledge

PEAK FLOW DATA

Q 2.33 = 42 cms Q 50 = 113 cms
 Q 10 = 71 cms Q 100 = 136 cms
 Q 25 = 92 cms Q 500 = 215 cms

DATE OF FLOOD OF RECORD: Unknown
 ESTIMATED DISCHARGE: Unknown
 WATER SURFACE ELEV.: Unknown
 NATURAL STREAM VELOCITY: @ Q25 = 4.0 mps
 ICE CONDITIONS: Minor
 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: N/A

WATERSHED STORAGE: 10% HEADWATERS: X
 UNIFORM: _____
 IMMEDIATELY ABOVE SITE: _____

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single Span Wooden Covered Bridge
 YEAR BUILT: 1879
 CLEAR SPAN(NORMAL TO STREAM): 16.8 m
 VERTICAL CLEARANCE ABOVE STREAMBED: 4.6m (avg. low superstructure elev. = 125.0m)
 WATERWAY OF FULL OPENING: 74 sm
 DISPOSITION OF STRUCTURE: Retain for pedestrian use
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown

WATER SURFACE ELEVATIONS AT:

Q2.33 = 122.1 m VELOCITY = 3.4 mps
 Q10 = 122.7 m " 4.3 mps
 Q25 = 123.2 m " 4.8 mps
 Q50 = 123.5 m " 5.2 mps
 Q100 = 123.9 m " 5.6 mps

LONG TERM STREAMBED CHANGES: 0.3m scour through bridge area

IS THE ROADWAY OVERTOPPED BELOW Q100: no
 FREQUENCY: Greater than Q100
 RELIEF ELEVATION: 126m
 DISCHARGE OVER ROAD @Q100: N/A

UPSTREAM STRUCTURE

TOWN: Brattleboro DISTANCE: 460m
 HIGHWAY #: TH 372 STRUCTURE #: BR 51
 CLEAR SPAN: 15.2 m CLEAR HEIGHT: 3.0 m
 YEAR BUILT: 1994 FULL WATERWAY: 44 sm
 STRUCTURE TYPE: Concrete Slab Bridge

DOWNSTREAM STRUCTURE

TOWN: Brattleboro DISTANCE: 1040m
 HIGHWAY #: 191 SB STRUCTURE #: 6-S
 CLEAR SPAN: 120.4 m CLEAR HEIGHT: 24.4m
 YEAR BUILT: 1960 FULL WATERWAY: 2900 sm
 STRUCTURE TYPE: 3 span plate girder bridge

LOAD FACTOR LOAD RATING (TONS) COVERED BRIDGE

LOADING LEVELS	TRUCK						
	M	MS	3S2	6 AXLE	3A STR.	4A STR.	SA SEMI
INVENTORY							
POSTED							
OPERATING							
COMMENTS:							

LOAD FACTOR LOAD RATING (TONS) NEW BRIDGE

LOADING LEVELS	TRUCK						
	M	MS	3S2	6 AXLE	3A STR.	4A STR.	SA SEMI
INVENTORY							
POSTED							
OPERATING							
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: Single Span Plate Girder Bridge

CLEAR SPAN(NORMAL TO STREAM): 26.5m
 VERTICAL CLEARANCE ABOVE STREAMBED: 5.0 m
 WATERWAY OF FULL OPENING: 103 sm

WATER SURFACE ELEVATIONS AT:

Q2.33 = 122.1 m VELOCITY = 3.0 mps
 Q10 = 122.7 m " 3.7 mps
 Q25 = 123.1 m " 4.0 mps
 Q50 = 123.5 m " 4.3 mps
 Q100 = 123.9 m " 4.6 mps

IS THE ROADWAY OVERTOPPED BELOW Q100: no
 FREQUENCY: greater than Q100
 RELIEF ELEVATION: 126.6 m
 DISCHARGE OVER ROAD @Q100: N/A

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 124.9 m
 VERTICAL CLEARANCE: @ Q25 = 1.8 m

SCOUR: No Contraction Scour @ Q100.

REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV

PERMIT INFORMATION

AVERAGE DAILY FLOW: 1.5 cms DEPTH OR ELEVATION:
 ORDINARY LOW WATER: 0.7 cms 0.1 m
 ORDINARY HIGH WATER: 18 cms 0.6 m

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A
 CLEAR SPAN (NORMAL TO STREAM): N/A
 VERTICAL CLEARANCE ABOVE STREAMBED: N/A
 WATERWAY AREA OF FULL OPENING: N/A

ADDITIONAL INFORMATION

Water surface elevations are reported upstream of the existing covered bridge for both the existing and proposed structures. Velocities are reported at the indicated bridge.

- DESIGN CRITERIA**
- DESIGN LIVE LOAD AASHTO: MS 22.5
 - DESIGN SPAN: 27.000m
 - ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL ON LEDGE
 - ALLOWABLE LOAD FOR PILING TYPE
 - ESTIMATED LENGTH
 - STRUCTURAL STEEL AASHTO M270/M270M GRADE: 345W
 - REINFORCING STEEL GRADE: 420
 - CONCRETE CLASS A (HPC-A) f_c: 30 Mpa
 CONCRETE CLASS B (HPC-B) f_c: 25 Mpa
 - SOIL UNIT WEIGHT: 22 kN/m³
 - DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL

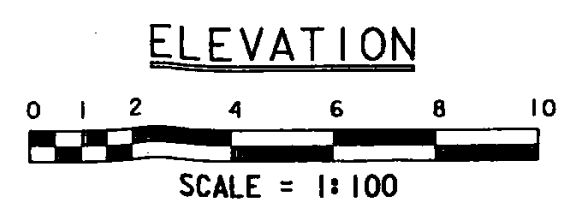
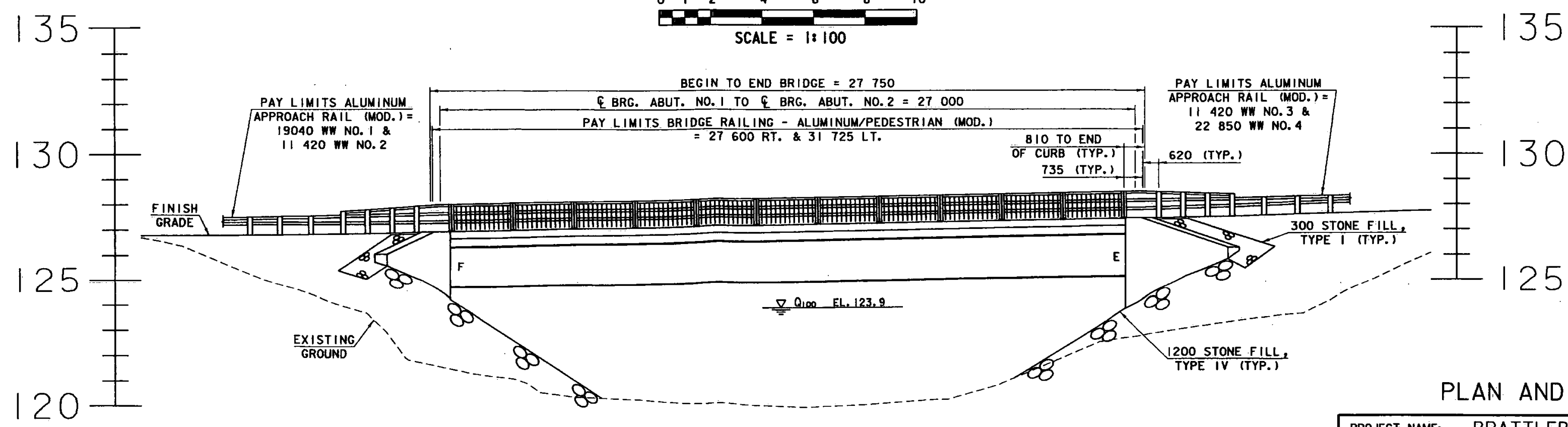
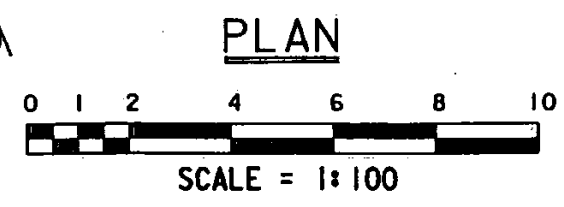
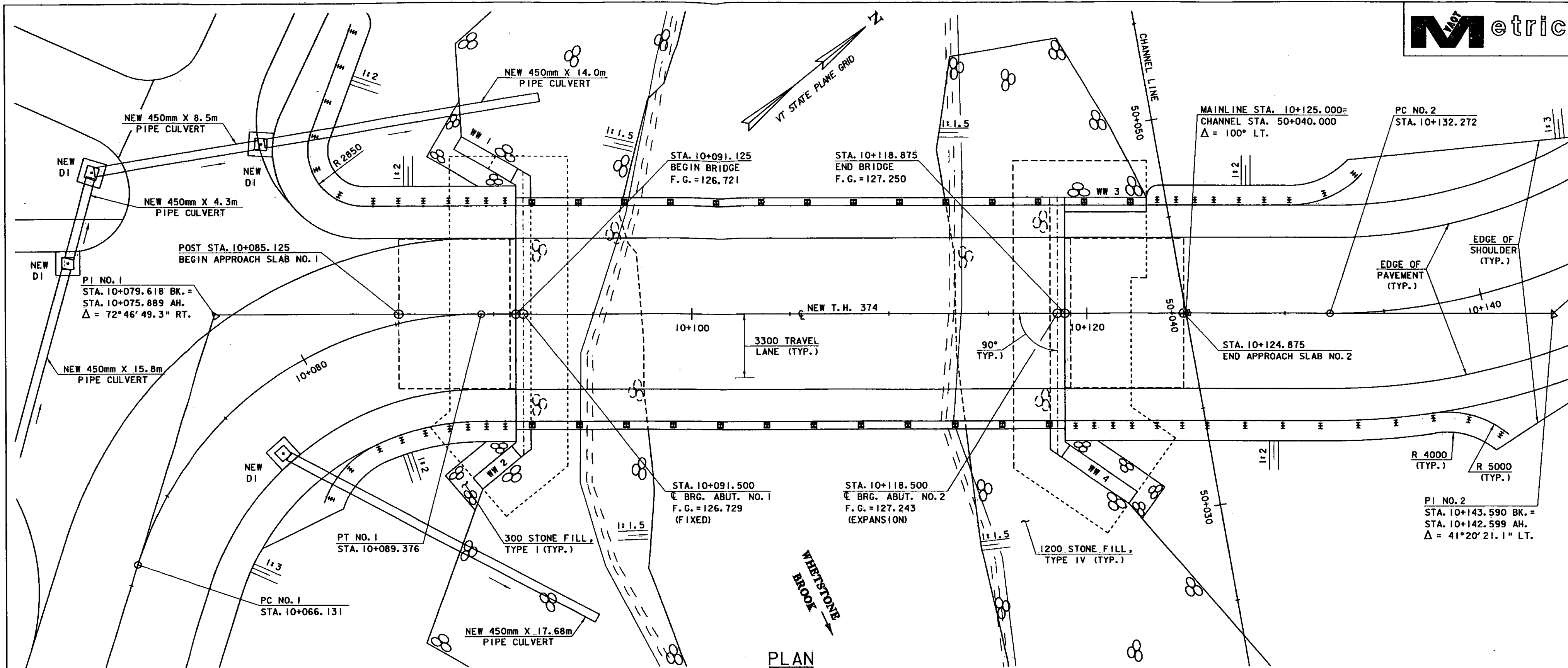
- TRAFFIC MAINTENANCE**
- IS TRAFFIC TO BE MAINTAINED? YES
 IF YES, ON EXISTING STRUCTURE? YES
 OR ON TEMPORARY BRIDGE? N/A
 ONE OR TWO-WAY TRAVEL? N/A
 - TRAFFIC CONTROL SIGNALS REQUIRED? NO
 - ARE SIDEWALKS REQUIRED? NO
 IF SO, ON WHAT SIDE? N/A

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2001	3660	605	57	4	115
2021	4750	645	57	3	130

20 year ESAL for flexible pavement 2001 to 2021 : 1,687,000
 40 year ESAL for flexible pavement 2001 to 2041 : 3,881,000
 Design Speed : 40 km/h

PROJECT NAME: BRATTLEBORO
 PROJECT NUMBER: BRF 2000 (21)S
 FILE NAME: 198j22@structures\j22@pl.xls PLOT DATE: 7/17/03
 PROJECT MANAGER: R.R. WHITCOMB DRAWN BY:
 DESIGNED BY: CHECKED BY:
 PRELIMINARY INFORMATION SHEET ROW SHEET 7 OF 15



PLAN AND ELEVATION

PROJECT NAME:	BRATTLEBORO	PLLOT DATE:	31-MAR-2004
PROJECT NUMBER:	BRF 2000 (2)S	PROJECT MANAGER:	R.R. WHITCOMB
DESIGNED BY:		DRAWN BY:	
		CHECKED BY:	
		R.O.W. SHEET	8 OF 15

SANITARY SEWER MANHOLE (MOD.)
MAINLINE 10+134.0 RT.

CAST IRON GRATE WITH FRAME, TYPE D
MAINLINE 10+076.0 RT.
PARKING LOT DRIVE 20+006.3 RT.
PARKING LOT DRIVE 20+007.5 RT.
PARKING LOT DRIVE 20+011.8 RT.
HOUSE DRIVE 30+011.0 RT.

150mm UNDERDRAIN
MAINLINE 10+040.0 RT. - 10+075.6 RT.

150mm UNDERDRAIN CARRIER PIPE
600 VERTICAL AT MAINLINE 10+040.0 RT.

UNDERDRAIN FLUSHING BASIN (FB)
MAINLINE 10+040.0 RT.

SLEEVES FOR UTILITIES
MAINLINE 10+122.1 LT. - 10+122.7 LT.

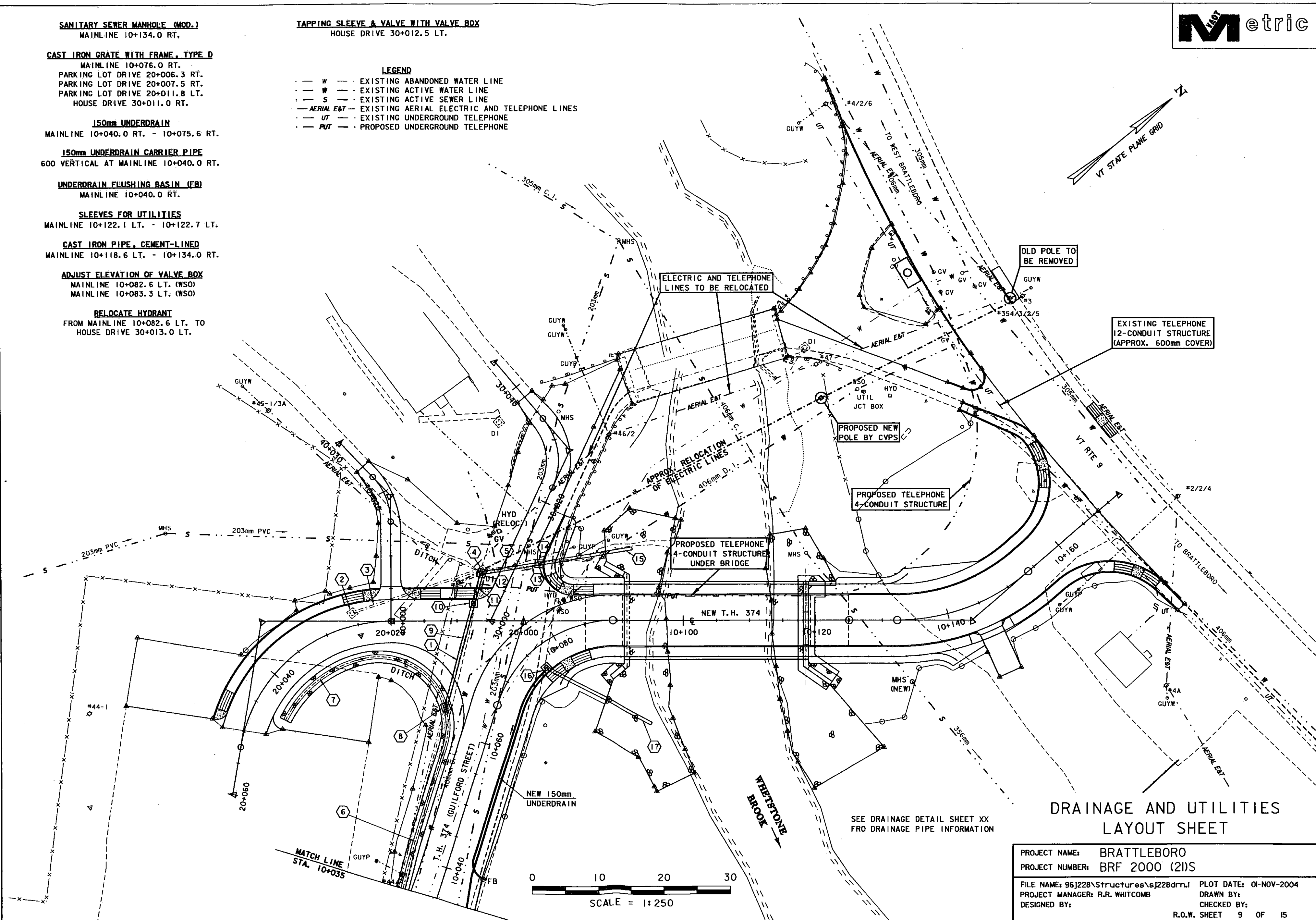
CAST IRON PIPE, CEMENT-LINED
MAINLINE 10+118.6 LT. - 10+134.0 RT.

ADJUST ELEVATION OF VALVE BOX
MAINLINE 10+082.6 LT. (WSO)
MAINLINE 10+083.3 LT. (WSO)

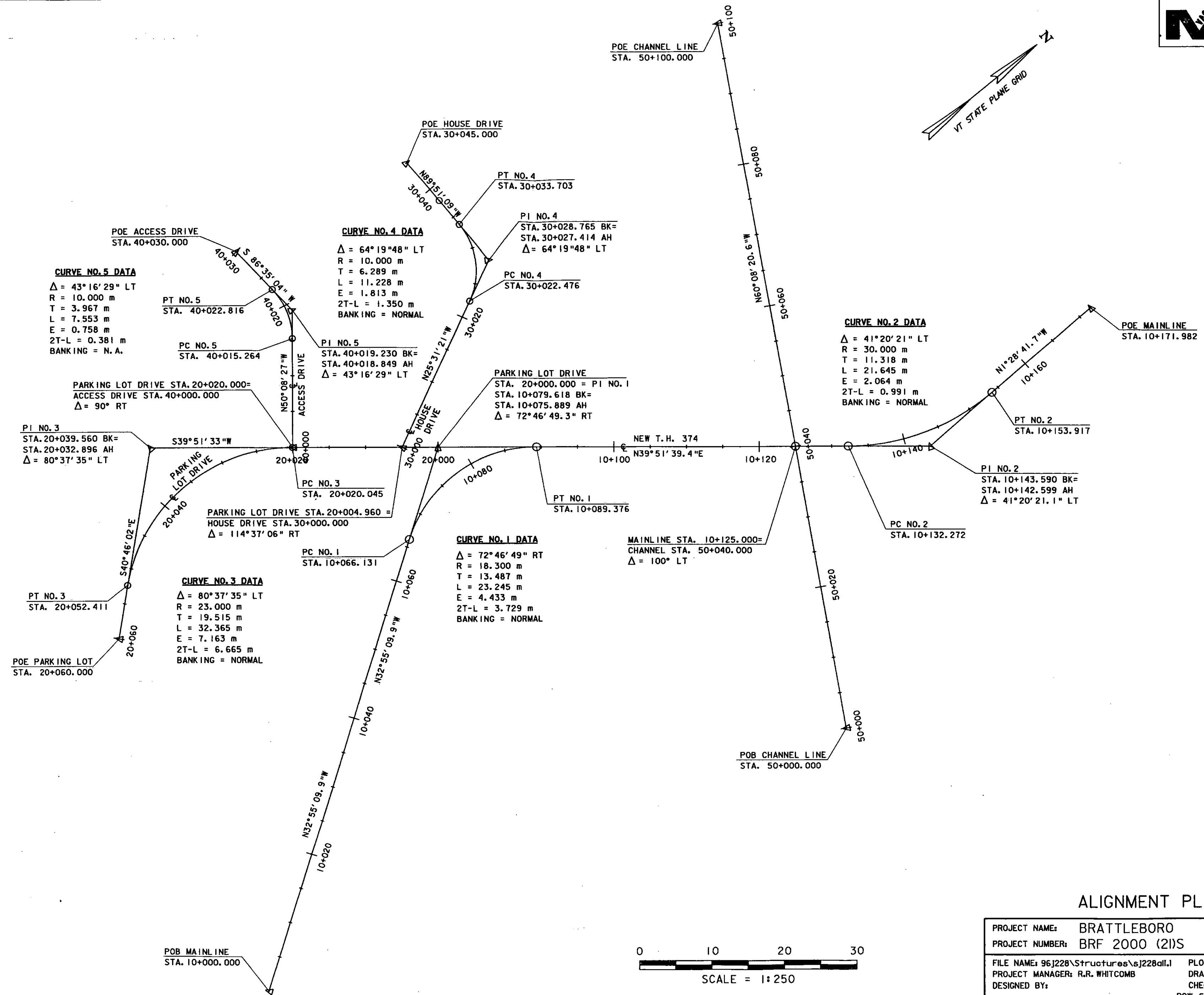
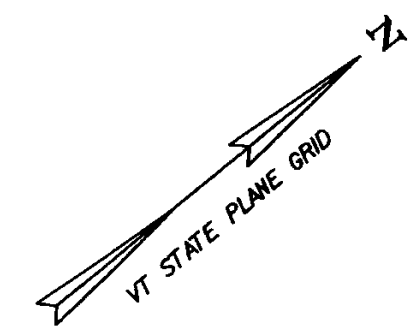
RELOCATE HYDRANT
FROM MAINLINE 10+082.6 LT. TO
HOUSE DRIVE 30+013.0 LT.

TAPPING SLEEVE & VALVE WITH VALVE BOX
HOUSE DRIVE 30+012.5 LT.

- LEGEND**
- W — EXISTING ABANDONED WATER LINE
 - W — EXISTING ACTIVE WATER LINE
 - S — EXISTING ACTIVE SEWER LINE
 - AERIAL E&T — EXISTING AERIAL ELECTRIC AND TELEPHONE LINES
 - UT — EXISTING UNDERGROUND TELEPHONE
 - PUT — PROPOSED UNDERGROUND TELEPHONE



PROJECT NAME:	BRATTLEBORO	PLOT DATE:	01-NOV-2004
PROJECT NUMBER:	BRF 2000 (2)15	DRAWN BY:	
FILE NAME:	96J228\Structures\sj228drn.d	CHECKED BY:	
PROJECT MANAGER:	R.R. WHITCOMB	DESIGNED BY:	
		R.O.W. SHEET 9 OF 15	



CURVE NO. 5 DATA
 $\Delta = 43^\circ 16' 29''$ LT
 R = 10.000 m
 T = 3.967 m
 L = 7.553 m
 E = 0.758 m
 2T-L = 0.381 m
 BANKING = N.A.

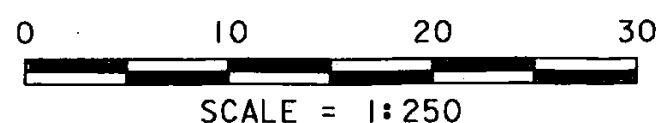
CURVE NO. 4 DATA
 $\Delta = 64^\circ 19' 48''$ LT
 R = 10.000 m
 T = 6.289 m
 L = 11.228 m
 E = 1.813 m
 2T-L = 1.350 m
 BANKING = NORMAL

CURVE NO. 2 DATA
 $\Delta = 41^\circ 20' 21''$ LT
 R = 30.000 m
 T = 11.318 m
 L = 21.645 m
 E = 2.064 m
 2T-L = 0.991 m
 BANKING = NORMAL

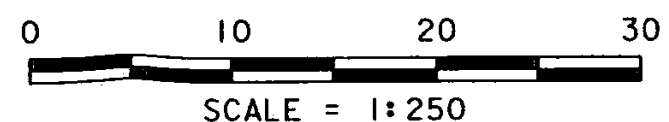
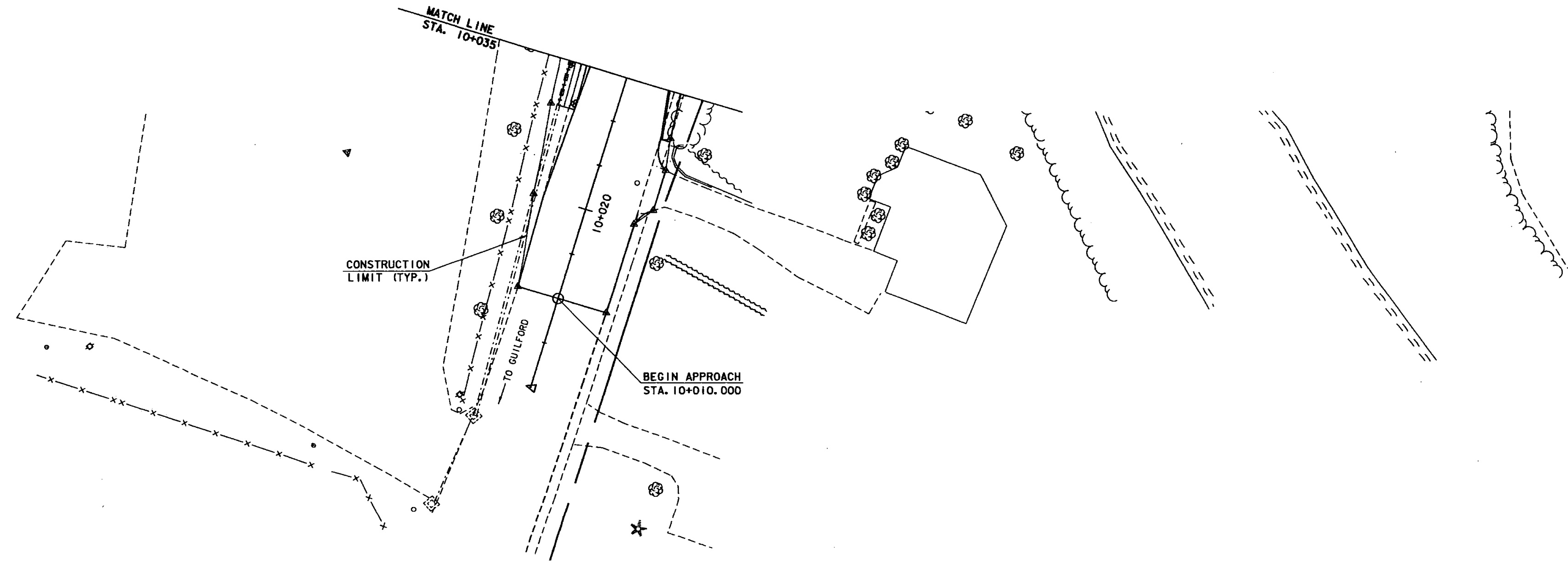
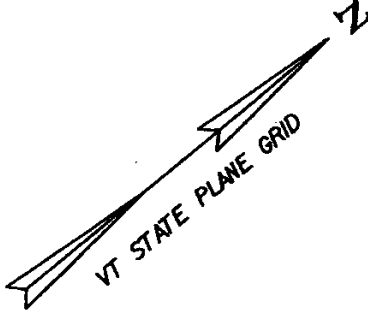
CURVE NO. 3 DATA
 $\Delta = 80^\circ 37' 35''$ LT
 R = 23.000 m
 T = 19.515 m
 L = 32.365 m
 E = 7.163 m
 2T-L = 6.665 m
 BANKING = NORMAL

CURVE NO. 1 DATA
 $\Delta = 72^\circ 46' 49''$ RT
 R = 18.300 m
 T = 13.487 m
 L = 23.245 m
 E = 4.433 m
 2T-L = 3.729 m
 BANKING = NORMAL

ALIGNMENT PLAN



PROJECT NAME:	BRATTLEBORO	PLOT DATE:	11-JAN-2005
PROJECT NUMBER:	BRF 2000 (2)S	DRAWN BY:	
FILE NAME:	96J228\Structures\sj228d11.j	CHECKED BY:	
PROJECT MANAGER:	R.R. WHITCOMB	DESIGNED BY:	
		ROW SHEET	10B OF 15 SHEETS



EROSION CONTROL SHEET (1)

PROJECT NAME:	BRATTLEBORO	PLOT DATE:	01 APR 2004
PROJECT NUMBER:	BRF 2000 (2)S	DRAWN BY:	
FILE NAME:	96J228\Structures\sj22801.rvt	CHECKED BY:	
PROJECT MANAGER:	R.R. WHITCOMB	DESIGNED BY:	
		R. O. W. SHEET 11 OF 15	

**SEEDING FORMULA
RURAL AREAS**

% WT.	kg/ha	NAME	PUR %	GERM %
37.5	26.0	CREEPING RED FESCUE	98	85
37.5	26.0	TALL FESCUE	95	90
5.0	4.0	RED TOP	95	90
15.0	10.0	BIRDSFOOT TREFOIL	98	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	70.0			

GENERAL NOTES

SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED TO BE APPLIED PER SEEDING FORMULA ABOVE OR AS DIRECTED BY THE ENGINEER.

FERTILIZER FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

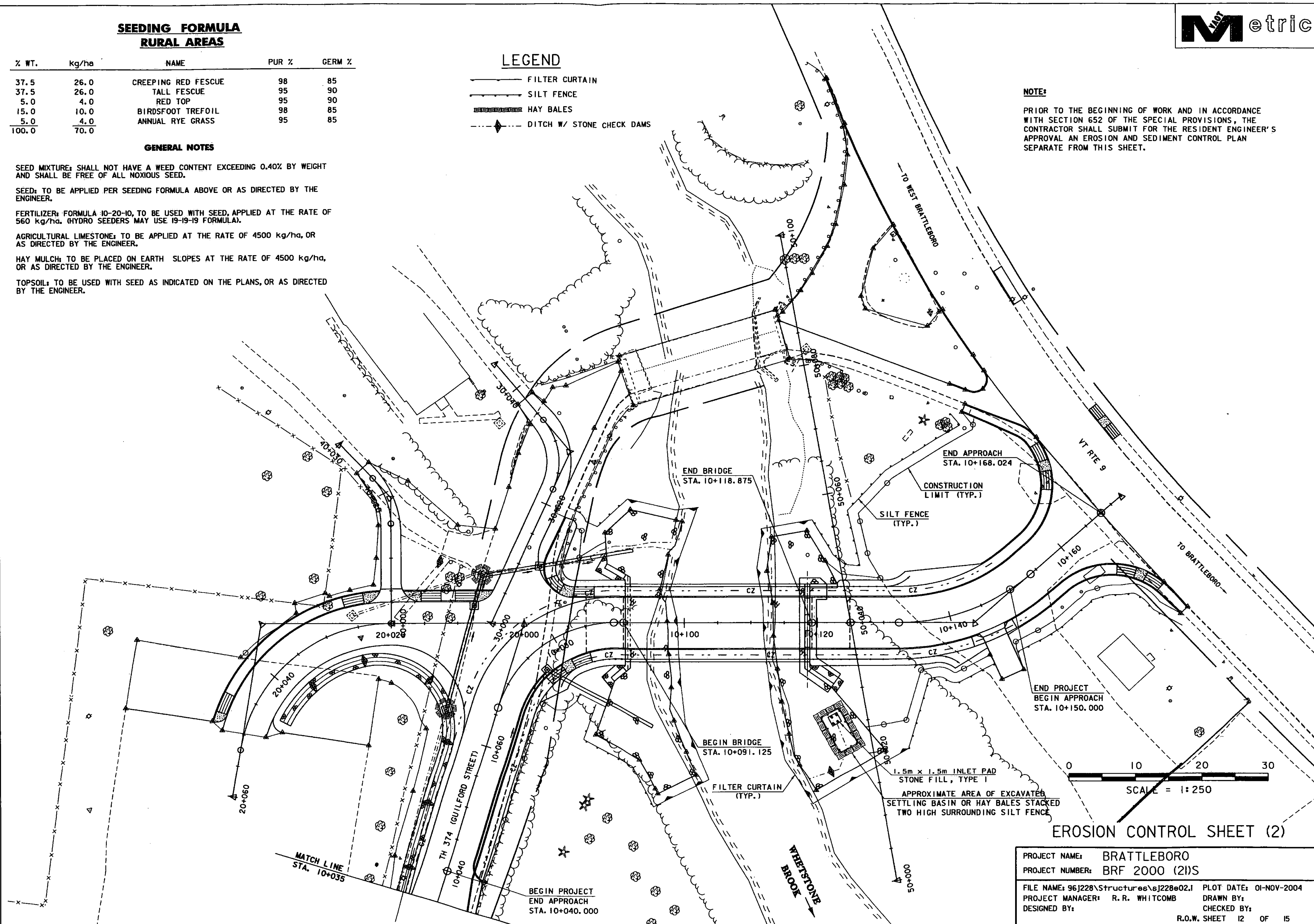
TOPSOIL TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

LEGEND

- FILTER CURTAIN
- SILT FENCE
- HAY BALES
- DITCH W/ STONE CHECK DAMS

NOTE:

PRIOR TO THE BEGINNING OF WORK AND IN ACCORDANCE WITH SECTION 652 OF THE SPECIAL PROVISIONS, THE CONTRACTOR SHALL SUBMIT FOR THE RESIDENT ENGINEER'S APPROVAL AN EROSION AND SEDIMENT CONTROL PLAN SEPARATE FROM THIS SHEET.



PROJECT NAME:	BRATTLEBORO
PROJECT NUMBER:	BRF 2000 (2)S
FILE NAME:	96J228\Structures\6J228e02.1
PROJECT MANAGER:	R. R. WHITCOMB
DESIGNED BY:	
PLOT DATE:	01-NOV-2004
DRAWN BY:	
CHECKED BY:	
R.O.W. SHEET 12 OF 15	

RIGHT - OF - WAY DETAIL SHEET



TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKE AREA ±	REMAINDER AREA ±	RIGHT			RECORDING DATA				REMARKS	
							TYPE	(T)/(P)	AREA ±	TITLE	DATE	TOWN / CITY	BOOK		PAGE
1	MALLORY, NORMAN R. & MARY A.	14	PRK LOT DR 20+005.00 RT. HSE DRIVE 30+007.02 LT.	HSE DRIVE 30+013.74 LT.			DRIVE SLOPE	(T) (T)	22.8 SM						GRAVEL 3.6M (11.8') 245 SF± INCLUDES PDF & EROSION CONTROL
2A	WINCHESTER, RODNEY R. & DOREEN E.	14	10+072.30 RT. 10+067.93 RT.	10+113.30 RT. 10+101.95 RT.	0.12 HA		CONST. SLOPE CHANNEL CUL. & DR. INSTALL INSTALL CHANNEL	(T) (T) (P) (P) (T) (T) (P)	51.9 SM 3.3 SM 152.6 SM 26.9 SM 31.6 SM 7.6 SM	WDOE	2/14/2006	Brattleboro	346	407	0.29 A± 559 SF± INCLUDES PDF & EROSION CONTROL 36 SF± 1,843 SF± EROSION CONTROL, 290 SF± EROSION CONTROL, 340 SF± 81 SF±
2B		14	10+069.63 RT.	10+112.19 LT.	0.05 HA		ALL R.T. & I.								0.13 A± ; TH 374
3	NEW ENGLAND TELEPHONE & TELEGRAPH, COMPANY a/k/a VERIZON NEW ENGLAND, INC.	14	10+148.30 RT. 10+148.30 RT. 10+146.85 RT.	10+164.70 RT. 10+164.70 RT. 10+164.70 RT.	22.6 SM		SLOPE CONST. DRIVE INSTALL	(T) (T) (T) (T)	6.5 SM 92.1 SM	WDOE	11/8/2007	BRATTLEBORO	365	449	243 SF± 70 SF± 991 SF± INCLUDES PDF & EROSION CONTROL GRAVEL 3.6M (11.8') PLANK RAIL ON P/L
4	CENTRAL VERMONT PUBLIC SERVICE CORPORATION														UTILITY
5	VERIZON NEW ENGLAND, INC.														UTILITY
6	TOWN OF BRATTLEBORO (WATER & SEWER)														UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION	DATE
1	13	PARCEL NO. 2 WINCHESTER. CHANGE THE TAKING OF PARCEL 2A FROM 0.27 HA± TO 0.12 HA±; 0.29 A± CHANGE THE TAKING OF PARCEL 2B FROM 0.52 HA± TO 0.05 HA±; 0.13A± PER C.O. 9431 MADE BY: MR APPROVED BY: RPD	7/14/2005
		ELECTRONIC FILES TO STRUCTURES	1/22/2009

PLAN LEGEND

- EXISTING RIGHT-OF-WAY
- TAKING WITH ACCESS
- TAKING WITHOUT ACCESS
- CLEAR ZONE
- PROPERTY LINE
- TOE OF SLOPE
- TOP OF CUT
- SLOPE RIGHT
- CONSTRUCTION RIGHT
- PROJECT DEMARCATION FENCE
- (P) -PERMANENT
- (T) -TEMPORARY
- DR. -DRAINAGE RIGHT
- DIT. -DITCHING RIGHT
- CH. -CHANNEL RIGHT
- DRIVE -DRIVE RIGHT
- CUL. -CULVERT RIGHT
- C&T -CLEARING & TRIMMING RIGHT
- SR -SLOPE RIGHT
- UE -UTILITY EASEMENT

APPROVED: ROGER P. DUMAS DATE: 04-29-05
CHIEF, PLANS & TITLES

PLOT DATE: 1/21/2009

PROJECT NAME:	BRATTLEBORO	PLOT DATE:	12/8/98
PROJECT NUMBER:	BRF 2000(21)S	DRAWN BY:	MR
FILE NAME:	98J228DET.XLS	CHECKED BY:	FJM
PROJECT LEADER:	R. WHITCOMB	R.O.W. SHEET	74 OF 76
DESIGNED BY:	0		



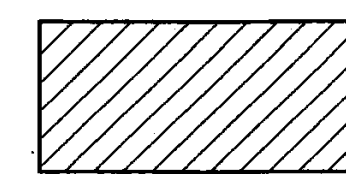
CONSTRUCT PAVED APRON
10+025 RT.

COLD PLANING, BITUMINOUS PAVEMENT
STA 10+010.0 - 10+035.0

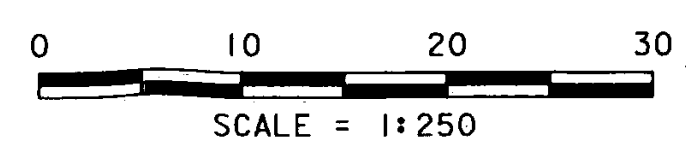
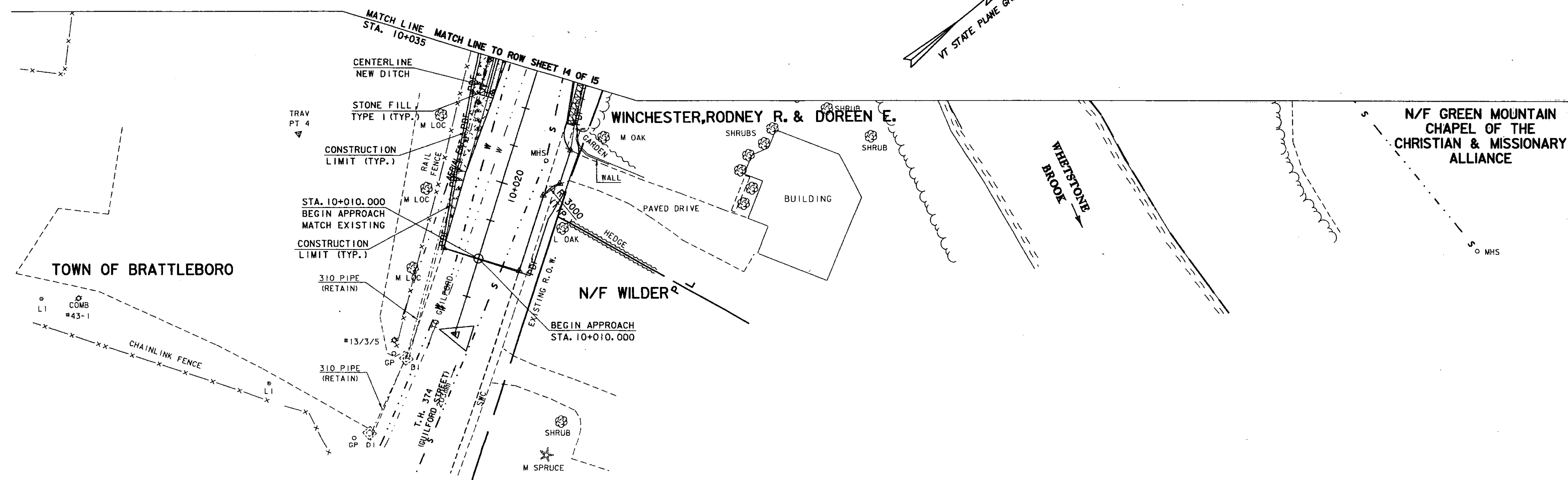
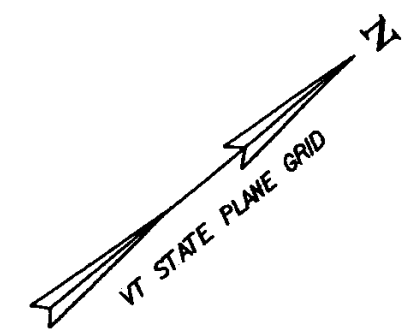
CAST-IN-PLACE CONCRETE CURB, TYPE B
MAINLINE 10+029.6 RT. - 10+035.0 RT.

PORTLAND CEMENT CONCRETE SIDEWALK, 125mm
MAINLINE 10+029.6 RT. - 10+035.0 RT.

LEGEND



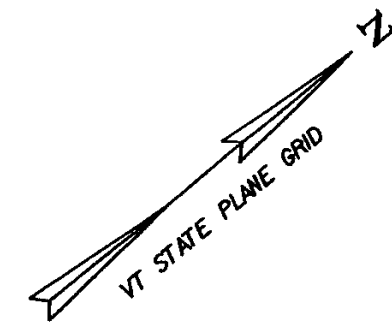
COLD PLANING AREA



**FOR R.O.W.
USE ONLY**

LAYOUT SHEET (1)

PROJECT NAME:	BRATTLEBORO	PLLOT DATE:	21-JAN-2009
PROJECT NUMBER:	BRF 2000 (2)S	DRAWN BY:	C. MOONEY
FILE NAME:	96J228\Str\sJ228bdr.dgn	CHECKED BY:	D. PETERSON
PROJECT MANAGER:	R.R. WHITCOMB	SHEET	75 OF 76
DESIGNED BY:	C. CARLSON		
R.O.W. SHEET	15 OF 15 SHEETS		



CONSTRUCT PARKING LOT DRIVE
MAINLINE 10+077.8 LT.

CONSTRUCT TELEPHONE BUILDING DRIVE
MAINLINE 10+145.0 RT.

CONSTRUCT HOUSE DRIVE
PARKING LOT DRIVE 20+005.0 RT.

CONSTRUCT ACCESS DRIVE
PARKING LOT DRIVE 20+020.0 RT.

CONSTRUCT PAVED APRON
PARKING LOT DRIVE 20+020.0 RT. (2 m)

SPECIAL PROVISION (REMOVE AND SALVAGE EXISTING BUS SHELTER)
MAINLINE 10+161.2 RT. (BUS SHELTER)

REMOVE EXISTING PAVEMENT
SEE PROJECT NOTE 6 ON SHEET 3

SIDEWALK RAMP, TYPE 1
PARKING LOT DRIVE 20+004.7 RT. - 20+010.4 RT.
PARKING LOT DRIVE 20+012.5 RT. - 20+018.2 RT.
PARKING LOT DRIVE 20+021.4 RT. - 20+026.2 RT.
PARKING LOT DRIVE 20+045.4 RT. - 20+049.4 RT.

SIDEWALK RAMP, TYPE 6
MAINLINE 10+074.9 RT. - 10+084.7 RT.
MAINLINE 10+082.3 LT. - 10+087.0 LT.
MAINLINE 10+163.6 RT. - 10+168.2 RT.
MAINLINE 10+163.7 LT. - 10+168.2 LT.
② ALONG VT 9 WEST AS SHOWN

BRIDGE RAILING - ANODIZED ALUMINUM/PEDESTRIAN
MAINLINE 10+091.13 LT. - 10+119.370 LT.
MAINLINE 10+091.13 RT. - 10+119.370 RT.

CAST-IN-PLACE CONCRETE CURB, TYPE B
MAINLINE 10+035.0 RT. - 10+078.7 RT.
MAINLINE 10+080.9 RT. - 10+091.05 RT.
MAINLINE 10+119.45 RT. - 10+143.2 RT.
MAINLINE 10+146.6 RT. - 10+166.6 RT.
MAINLINE 10+167.4 RT. - 10+168.3 RT.
MAINLINE 10+084.5 LT. - 10+091.05 LT.
MAINLINE 10+119.45 LT. - 10+166.7 LT.
MAINLINE 10+167.5 LT. - 10+163.6 LT.
PARKING LOT DRIVE 20+007.3 RT. - 20+015.5 RT.
PARKING LOT DRIVE 20+023.6 RT. - 20+048.1 RT.
HOUSE DRIVE 30+008.3 RT. - 30+019.4 RT.
59.5 m ALONG VT 9 EAST AS SHOWN
① 5.8m ALONG VT 9 WEST AS SHOWN
② 4.3m ALONG VT 9 WEST AS SHOWN

PORTLAND CEMENT CONCRETE SIDEWALK, 125mm
MAINLINE 10+035.0 RT. - 10+091.05 RT.
MAINLINE 10+119.450 RT. - 10+168.3 RT.
PARKING LOT DRIVE 20+004.7 RT. - 20+018.2 RT.
PARKING LOT DRIVE 20+021.4 RT. - 20+049.4 RT.
HOUSE DRIVE 30+019.4 RT. - MAINLINE 10+091.05 LT.
MAINLINE 10+119.450 LT. - 10+163.6 LT.
① ALONG VT 9 WEST AS SHOWN
② ALONG VT 9 WEST AS SHOWN

REMOVING AND RESETTING FENCE
PARKING LOT DRIVE 20+027.9 RT. - 20+031.6 RT.

REMOVAL OF EXISTING FENCE
MAINLINE 10+057.2 LT. - 10+076.4 LT.

PLANK RAIL
MAINLINE 10+145.4 RT. - 10+152.9 RT.

SPECIAL PROVISION (ALUMINUM APPROACH RAILING, ANODIZED)
MAINLINE 10+075.70 RT. - 10+091.13 RT.
HOUSE DRIVE 30+018.47 RT. - 10+091.13 LT.
MAINLINE 10+119.37 LT. - 10+134.73 LT.
MAINLINE 10+119.37 RT. - 10+139.83 RT.

REMOVAL AND DISPOSAL OF GUARDRAIL
HOUSE DRIVE 30+009.3 RT. - 30+018.5 RT.

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF BRATTLEBORO'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

NOTE:
SEE SHEETS 21-22 FOR TRAFFIC SIGNS AND PAVEMENT MARKINGS DETAILS. SEE SHEETS 19-20 FOR DRAINAGE AND UTILITIES DETAILS.

FOR DRAINAGE DETAIL SEE ROW SHEET 9 & 10A OF 15

FOR EROSION CONTROL DETAILS SEE ROW SHEETS 11 & 12 OF 15

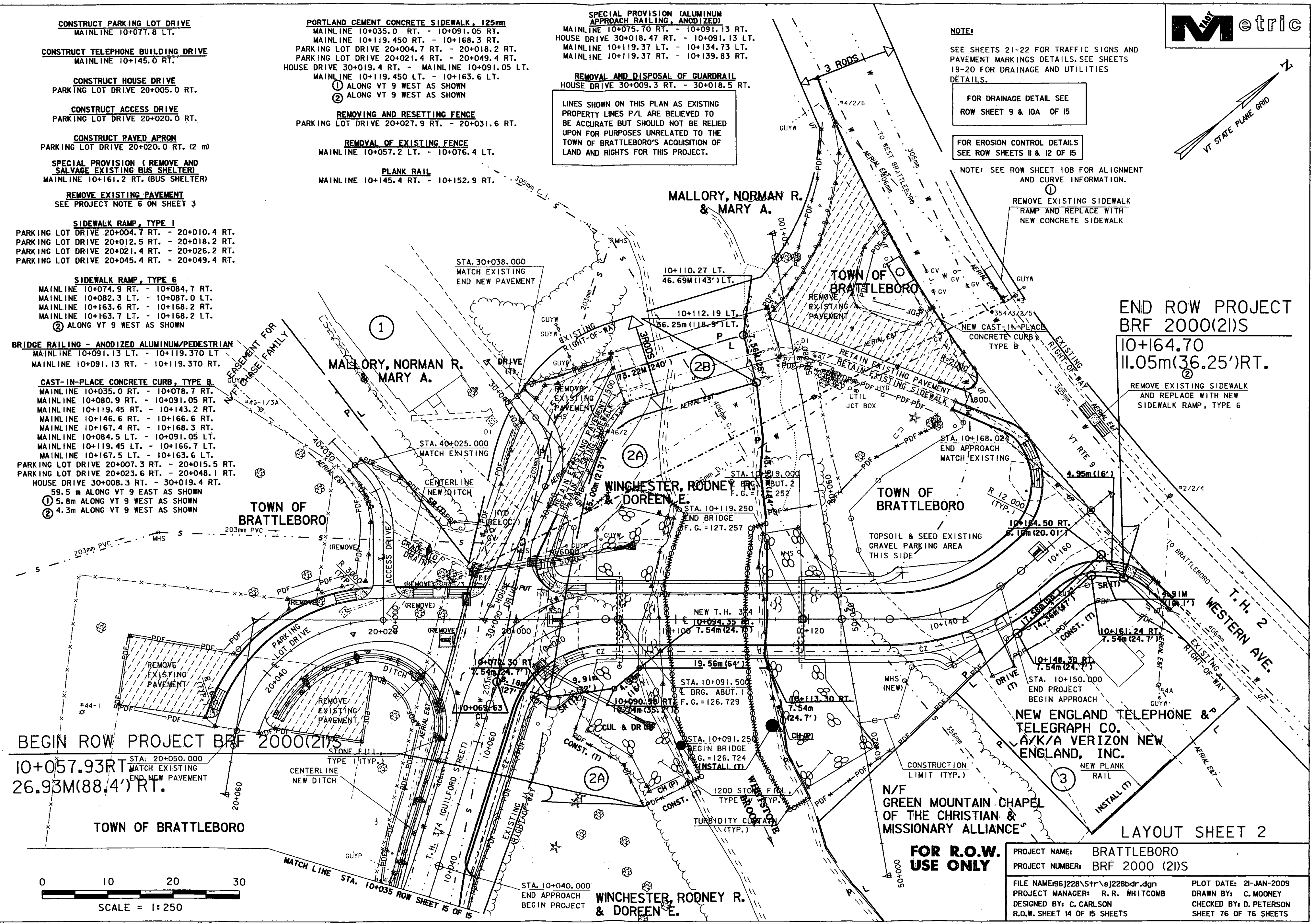
NOTE: SEE ROW SHEET 10B FOR ALIGNMENT AND CURVE INFORMATION.

① REMOVE EXISTING SIDEWALK RAMP AND REPLACE WITH NEW CONCRETE SIDEWALK

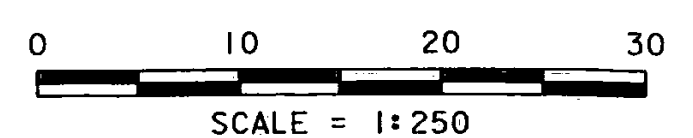
END ROW PROJECT BRF 2000(2)S

10+164.70
11.05m(36.25')RT.

REMOVE EXISTING SIDEWALK AND REPLACE WITH NEW SIDEWALK RAMP, TYPE 6



BEGIN ROW PROJECT BRF 2000(2)S
10+057.93 RT.
26.93M(88.4')RT.



FOR R.O.W. USE ONLY

PROJECT NAME:	BRATTLEBORO	PLOT DATE:	21-JAN-2009
PROJECT NUMBER:	BRF 2000 (2)S	DRAWN BY:	C. MOONEY
FILE NAME:	96J228\Str\9J228bdr.dgn	CHECKED BY:	D. PETERSON
PROJECT MANAGER:	R. R. WHITCOMB	R.O.W. SHEET:	14 OF 15 SHEETS
DESIGNED BY:	C. CARLSON	SHEET:	76 OF 76 SHEETS

LAYOUT SHEET 2