

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF CHESTER

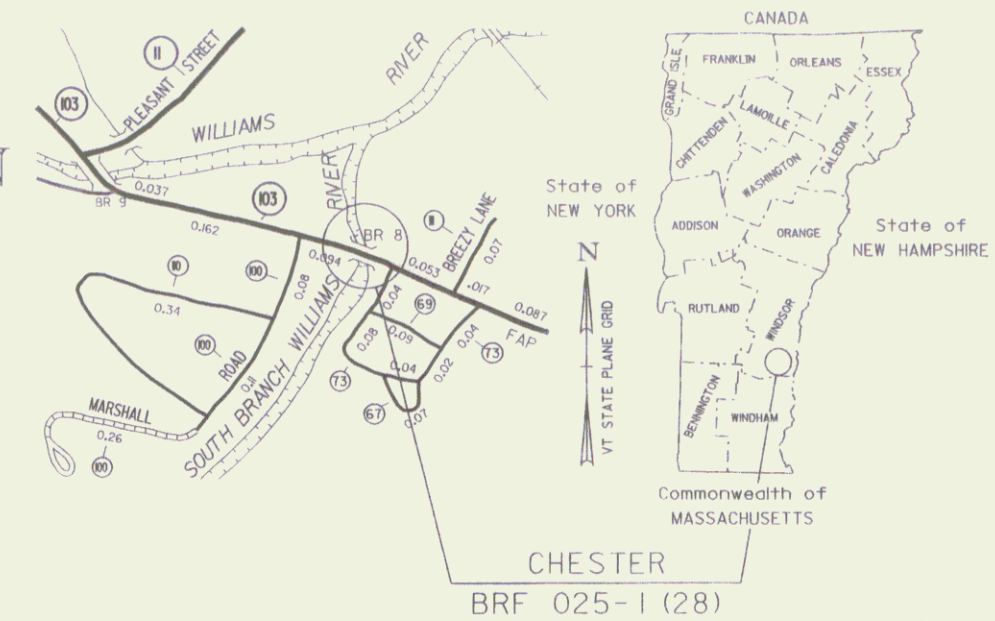
COUNTY OF WINDSOR

ROUTE NO : VT 103 RURAL PRINCIPAL ARTERIAL NATIONAL HIGHWAY SYSTEM BRIDGE NO : 8

PROJECT LOCATION : 0.27 MILES SOUTHEAST OF JUNCTION WITH VT ROUTE II (PLEASANT STREET)

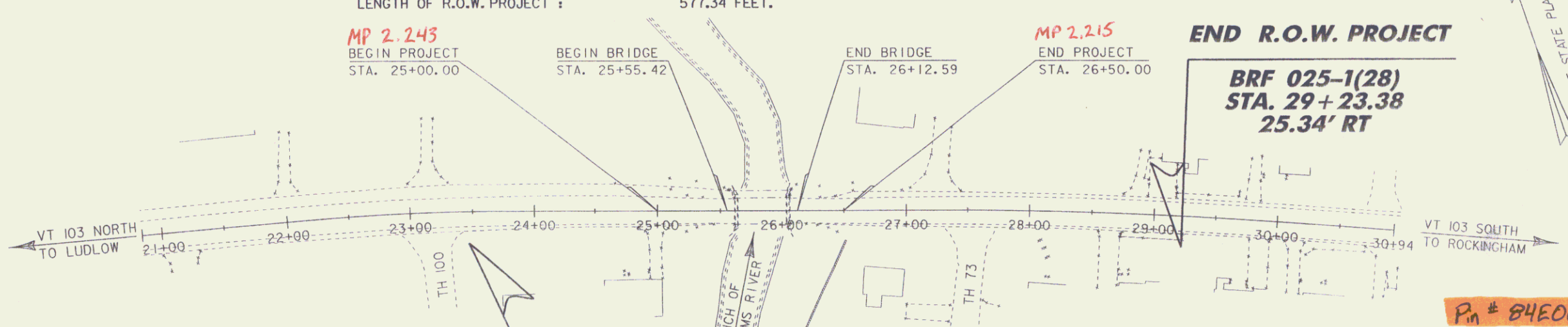
PROJECT DESCRIPTION : THE PROJECT SHALL CONSIST OF THE REPLACEMENT OF THE EXISTING STRUCTURE WITH A NEW STRUCTURE INCLUDING RELATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE : 57.17 FEET.
LENGTH OF ROADWAY : 92.83 FEET.
LENGTH OF PROJECT : 150.00 FEET.
LENGTH OF R.O.W. PROJECT : 577.34 FEET.



R.O.W. PLANS

MP 2.245 BEGIN PROJECT STA. 25+00.00
 BEGIN BRIDGE STA. 25+55.42
 END BRIDGE STA. 26+12.59
 MP 2.215 END PROJECT STA. 26+50.00
END R.O.W. PROJECT
BRF 025-1(28)
STA. 29+23.38
25.34' RT



CONVENTIONAL SYMBOLS

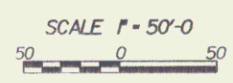
COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 V.S.A. 1111

SURVEYED BY : GILMAN
 SURVEYED DATE : 09/08/98
 DATUM
 VERTICAL : NAVD 88
 HORIZONTAL : NAD 83 (92)

BEGIN R.O.W. PROJECT

BRF 025-1(28)
STA. 23+46.04
25.25' 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 State of Vermont's acquisition of land and rights for this project.

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.

APPROVED: DATE 11-12-09
 Director of Program Development

APPROVED: DATE 11/22/09
 Chief of Right of Way

CHESTER
BRF 025-1(28)
 R.O.W. SHEET 1 OF 17 SHEETS

PLOTTED 28-SEP-2009

PIN # 84E061

TRAFFIC CONTROL NOTES:

TRAFFIC WILL BE MAINTAINED ON A REGIONAL DETOUR VIA VT RT 11 BETWEEN CHESTER AND SPRINGFIELD AND INTERSTATE 89 BETWEEN EXITS 6 AND 7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DETOUR AND CONSTRUCTION SIGNING. THE EXACT LOCATION WILL BE COORDINATED BETWEEN THE RESIDENT ENGINEER AND THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH M.U.T.C.D.

TRAFFIC CONTROL WARNING SIGNS SHALL BE PROVIDED PER STANDARDS E-100, E-102 AND E-102A. ADDITIONAL PROJECT CONSTRUCTION SIGNS SHALL BE INSTALLED AS REQUIRED BY THE RESIDENT ENGINEER. ALL ON AND OFF PROJECT SIGNS AND BARRICADES AS REQUIRED FOR THE DETOUR AND/OR ORDERED BY THE RESIDENT ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PAID FOR UNDER THE ITEM 641.10, "TRAFFIC CONTROL". ALL SIGNS AND BARRICADES SHALL BE INSPECTED DAILY AND REPAIRED AS NECESSARY. ALL SIGNS AND BARRICADES SHALL BE CLEARED OF DUST AND DEBRIS WEEKLY.

PORTABLE CHANGEABLE MESSAGE SIGNS "PCMS" SHALL BE PLACED AT THE APPROXIMATE LOCATIONS SHOWN ON THE PLANS OR WHERE DESIGNATED BY THE RESIDENT ENGINEER. TWO SIGNS SHALL BE PLACED AT THE PROJECT LOCATION 14 DAYS PRIOR TO THE START OF CONSTRUCTION TO WARN OF THE IMPENDING DETOURS. THESE SHALL THEN BE REMOVED AND DEPLOYED TO THE LOCATIONS SHOWN ONCE CONSTRUCTION HAS BEGUN. PAYMENT FOR THESE SIGNS SHALL BE INCLUDED IN ITEM 641.17 "PORTABLE CHANGEABLE MESSAGE"

THE STATE ROUTE MARKERS USED FOR THE DETOUR AS SHOWN ON THE PLANS, SHALL FOLLOW STANDARDS E-127 AND E-136B. THESE SIGNS SHALL BE REMOVED AT THE END OF THE CONSTRUCTION PERIOD. THESE SIGNS AND THEIR REMOVAL SHALL BE PAID FOR UNDER ITEM 641.10 "TRAFFIC CONTROL"

THE CONTRACTOR SHALL INCLUDE ITEM 641.12 "PUBLIC RELATIONS OFFICER" FOR THE COORDINATION OF DETOUR INFORMATION AND TRAFFIC DELAYS FOR THE PUBLIC.

ACCESS TO ALL EXISTING DRIVES AND SIDE ROADS SHALL BE MAINTAINED AT ALL TIMES DURING ALL PHASES OF CONSTRUCTION.

INSTALLATION OF DETOUR SIGNS SHALL NOT BLOCK ANY EXISTING TRAFFIC CONTROL SIGN ASSEMBLIES AND SHALL BE PLACED ADJACENT TO EXISTING SIGN ASSEMBLIES WHEN POSSIBLE. THE CONTRACTOR SHALL TRY TO MAINTAIN AT LEAST 200 FEET BETWEEN SIGN ASSEMBLIES.

EXISTING SIGNS THAT ARE IN CONFLICT WITH THE TRAFFIC FLOW OF THE DETOUR SHALL BE REMOVED OR COVERED BY THE CONTRACTOR. ALL SIGNS REMOVED OR COVERED SHALL BE REPLACED OR UNCOVERED WHEN THE TRAFFIC CONTROL PLAN IS DISASSEMBLED. PAYMENT FOR THIS WORK WILL BE INCIDENTAL TO ITEM 641.10 "TRAFFIC CONTROL"

CONTACT DIG-SAFE AT 1-888-344-7233 PRIOR TO BREAKING GROUND TO INSTALL ANY SIGN POSTS.

DISTANCES:

EXIT 6 TO EXIT 7:	6.5 MILES
EXIT 7 TO SPRINGFIELD VIA VT 11:	3.5 MILES
SPRINGFIELD TO JUNCTION VT-103 & VT 11:	8.0 MILES
CHESTER BRIDGE 8&9 TO EXIT 6 VIA VT 11:	18.0 MILES
CHESTER BRIDGE 8&9 TO EXIT 6 WITH NO DETOUR:	9.0 MILES
EXTRA MILEAGE REQUIRED BY DETOUR:	9.0 MILES



**REGIONAL TRAFFIC CONTROL PLAN
NTS**

PROJECT NAME: CHESTER	FILE NAME: s84e061/detourmap.dgn	PLOT DATE: 28-SEP-2009
PROJECT NUMBER: BRF 025-1(28)	PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: M.FESSEL
	DESIGNED BY: R.S.YOUNG	CHECKED BY: R.S.YOUNG
		ROW SHEET 2 OF 17

PRELIMINARY INFORMATION SHEET

INDEX OF SHEETS

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3	TYPICAL SECTIONS
4	TIE SHEET
5	LAYOUT
6	PROFILE
7	TRAFFIC LAYOUT
8	DETOUR MAP
9	DETOUR NOTES
10	DETOUR SIGNS
11	TRAFFIC SIGN SUMMARY
12	BORING INFORMATION SHEET
13-14	BORING LOGS
15	PLAN AND ELEVATION
16	MISCELLANEOUS DETAILS
17	ENVIRONMENTAL IMPACTS
18	EPSC NARRATIVE
19-21	EPSC SHEETS
22-23	EPSC DETAIL SHEETS
24-25	MAINLINE CROSS SECTIONS
26-27	CHANNEL CROSS SECTIONS
28	REFERENCE PLANS

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA Date: Jan. 8, 2009

DRAINAGE AREA: 11.0 sq. mi.
 CHARACTER OF TERRAIN: Hilly to mountainous, mostly forested.
 STREAM CHARACTERISTICS: Sinuous, slightly incised with a wide floodplain.
 NATURE OF STREAMBED: Mostly cobbles with some gravel.

PEAK FLOW DATA

Q 2.33 =	700 cfs	Q 50 =	2570 cfs
Q 10 =	1600 cfs	Q 100 =	3080 cfs
Q 25 =	2100 cfs	Q 500 =	4510 cfs

DATE OF FLOOD OF RECORD: September 1938
 ESTIMATED DISCHARGE: Unknown
 WATER SURFACE ELEV.: Unknown
 NATURAL STREAM VELOCITY: @ Q50 = 8.9 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:

PROPOSED STRUCTURE

STRUCTURE TYPE: Single span pre-cast concrete beam bridge

CLEAR SPAN(NORMAL TO STREAM): 53'
 VERTICAL CLEARANCE ABOVE STREAMBED: 7'
 WATERWAY OF FULL OPENING: 290 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	573.9'	VELOCITY=	7.3 fps
Q10 =	575.5'	-	10.4 fps
Q25 =	576.3'	-	8.4 fps
Q50 =	576.8'	-	6.8 fps
Q100 =	577.2'	-	5.8 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Between Q10 and Q25
 RELIEF ELEVATION: 576.1'
 DISCHARGE OVER ROAD @Q100: 1700 cfs

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 577.1'
 VERTICAL CLEARANCE: @ Q50 = 0.3'

SCOUR: Less than 1' of contraction scour up to Q500.

REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

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

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single span steel beam bridge with concrete deck
 YEAR BUILT: 1924
 CLEAR SPAN(NORMAL TO STREAM): 39'
 VERTICAL CLEARANCE ABOVE STREAMBED: 7'
 WATERWAY OF FULL OPENING: 240 sq. ft.
 DISPOSITION OF STRUCTURE: Remove and replace
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: See borings.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	573.9'	VELOCITY=	7.1 fps
Q10 =	575.6'	-	10.8 fps
Q25 =	576.3'	-	9.4 fps
Q50 =	577.4'	-	6.6 fps
Q100 =	577.5'	-	7.7 fps

LONG TERM STREAMBED CHANGES: None noted.

PERMIT INFORMATION

AVERAGE DAILY FLOW:	20 cfs	DEPTH OR ELEVATION:	
ORDINARY LOW WATER:	10 cfs		0.5'
ORDINARY HIGH WATER:	300 cfs		2.0'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporary bridge required. Traffic will use an offsite detour.
 CLEAR SPAN(NORMAL TO STREAM):
 VERTICAL CLEARANCE ABOVE STREAMBED:
 WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Between Q10 and Q25
 RELIEF ELEVATION: 576.1'
 DISCHARGE OVER ROAD @Q100: 1840 cfs

UPSTREAM STRUCTURE

TOWN: Chester DISTANCE: 5,500'
 HIGHWAY #: T.H. 3, VT Route 35 & FAS 0125 STRUCTURE #: 7
 CLEAR SPAN: 72' CLEAR HEIGHT: 7.5'
 YEAR BUILT: 1949 FULL WATERWAY:
 STRUCTURE TYPE: Single span steel beam bridge

DOWNSTREAM STRUCTURE

TOWN: Confluence with Middle Branch Williams River DISTANCE: 600'
 HIGHWAY #: STRUCTURE #:
 CLEAR SPAN: CLEAR HEIGHT:
 YEAR BUILT: FULL WATERWAY:
 STRUCTURE TYPE:

DESIGN CRITERIA

- DESIGN LIVE LOAD AASHTO: HL-93
- DESIGN SPAN: 56 FEET
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL ON LEDGE
- ALLOWABLE LOAD FOR PILING TYPE ESTIMATED LENGTH ABUT #1 - 17', ABUT #2 - 7'
- STRUCTURAL STEEL AASHTO M270MM270 GRADE: N/A
- REINFORCING STEEL GRADE: 60
- CONCRETE, HIGH PERFORMANCE CLASS A f_c: 4000 psi
CONCRETE, HIGH PERFORMANCE CLASS B f_c: 3500 psi
- DESIGN SOIL UNIT WEIGHT: 140 pcf
- DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL: N/A

LOADING LEVELS

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

TRAFFIC MAINTENANCE

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

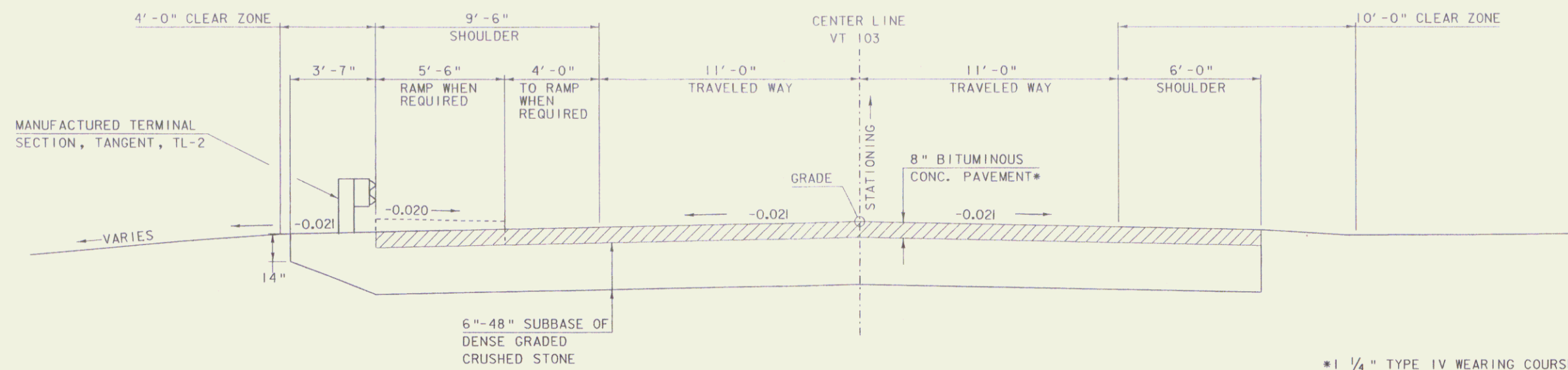
TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2013	7200	1100	50	8.3	730
2033	8600	1300	50	10.8	1100

20 year ESAL for flexible pavement from 2013 to 2033 : 5,927,000
 40 year ESAL for flexible pavement from 2013 to 2053 : 13,731,000
 Design Speed : 30 mph

PROJECT NAME: CHESTER
 PROJECT NUMBER: BRF 025-1(28)

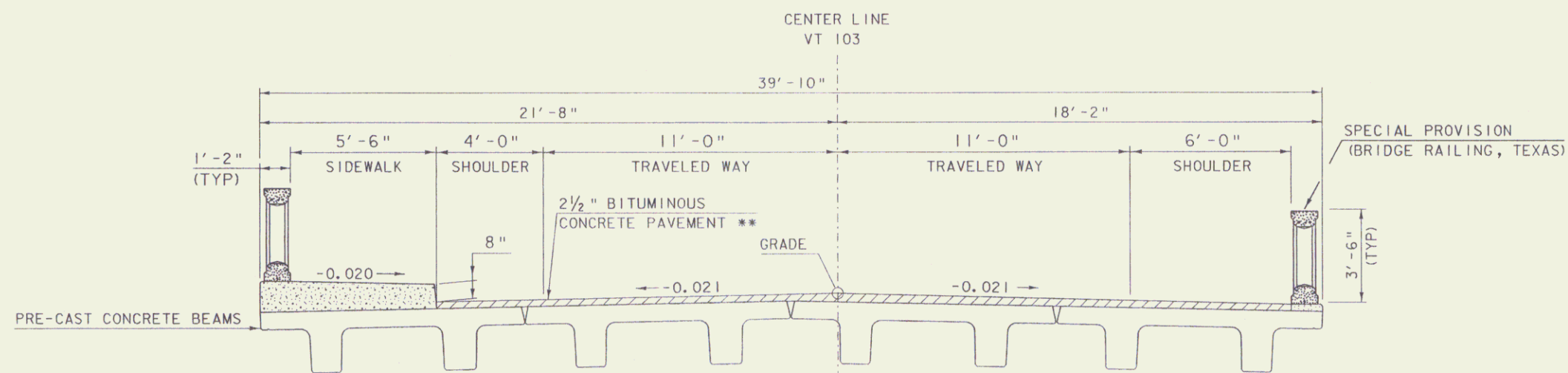
FILE NAME: s84e061excel.dgn PLOT DATE: 3/10/2009
 PROJECT LEADER: C.P.WILLIAMS DRAWN BY: M.FESSEL
 DESIGNED BY: R.S.YOUNG CHECKED: R.S.YOUNG
 PRELIMINARY INFORMATION SHEET ROW SHEET 4 OF 17



TYPICAL ROADWAY SECTION

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

- *1 1/4" TYPE IV WEARING COURSE OVER
- 1 1/4" TYPE IV BINDER COURSE OVER
- 2 1/2" TYPE II BASE COURSE OVER
- 2 1/2" TYPE II BASE COURSE



PROPOSED TYPICAL BRIDGE SECTION

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

- **1 1/4" TYPE IV WEARING COURSE OVER
- 1 1/4" TYPE IV BINDER COURSE

MATERIAL TOLERANCES

(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

SCALE 3/8" = 1'-0"
 1 0 1 2 3 4

PROJECT NAME: CHESTER
 PROJECT NUMBER: BRF 025-1(28)

FILE NAME: 84e061/Str/typ.dgn
 PROJECT LEADER: C.P.WILLIAMS
 DESIGNED BY: R.S.YOUNG

PLOT DATE: 28-SEP-2009
 DRAWN BY: M.FESSEL
 CHECKED BY: R.S.YOUNG
 ROW SHEET 5 OF 17

GPS CONTROL POINTS

HVCTRL #1
 DOTTAVIO AZ MK
 NORTH = 273787.07
 EAST = 1619869.46
 ELEV. = 577.75

GENERAL LOCATION, 10.4 MI (16.7 KM) NORTHWEST OF BELLOWS FALLS, 6 MI (9.7 KM) SOUTHWEST OF SPRINGFIELD AND 5.5 MI (8.9 KM) NORTH OF GRAFTON. TO REACH FROM THE JUNCTION OF VT ROUTE 103 AND VT ROUTE 11 (EAST) IN CHESTER PROCEED SOUTHEAST ON VT ROUTE 103 FOR .8 MI (1.3 KM) TO THE MARK ON THE RIGHT (WEST). THE MARK IS 75.5 FT (23.0 M) SOUTHEAST OF THE SOUTHEAST CORNER OF THE PUTNEY PASTA BUILDING, 70 FT (21.3 M) SOUTH OF A SEWER MANHOLE, 48 FT (14.6 M) WEST OF AND LEVEL WITH THE CENTERLINE OF ROUTE 103, 14 FT (4.3 M) SOUTHEAST OF A FIRE HYDRANT AND 8.5 FT (2.6 M) EAST OF UTILITY POLE NUMBER 3/88/3/40 AND A FIBERGLASS WITNESS POST. OWNERSHIP UNKNOWN.

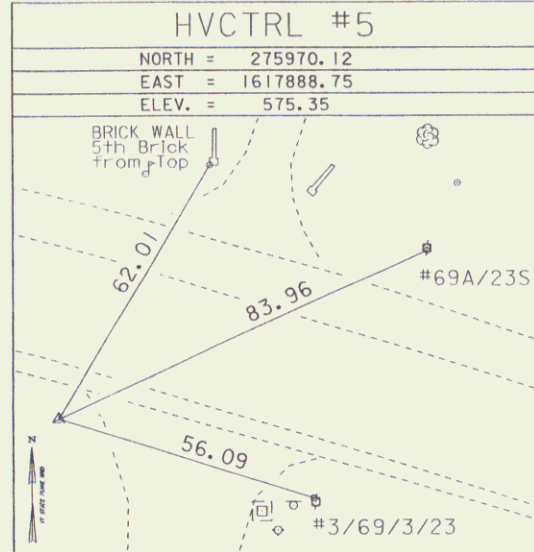
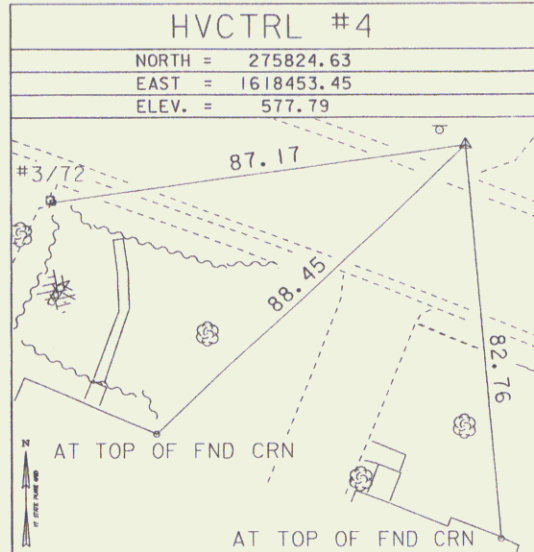
HVCTRL #2
 DOTTAVIO
 NORTH = 275233.88
 EAST = 1619439.55
 ELEV. = 563.37

GENERAL LOCATION, 10.7 MI (17.2 KM) NORTHWEST OF BELLOWS FALLS, 6 MI (9.7 KM) SOUTHWEST OF SPRINGFIELD AND 5.5 MI (8.9 KM) NORTH OF GRAFTON. TO REACH FROM THE JUNCTION OF VT ROUTE 103 AND VT ROUTE 11 (EAST) IN CHESTER PROCEED SOUTHEAST ON VT ROUTE 103 FOR .5 MI (0.8 KM) TO THE MARK ON THE RIGHT (WEST). THE MARK IS 64 FT (19.5 M) NORTHEAST OF THE NORTHEAST CORNER OF DIAMOND JIMS LOG CABIN RESTAURANT, 34.5 FT (10.5 M) WEST OF AND 1 FT (0.3 M) HIGHER THAN THE CENTERLINE OF ROUTE 103, 19 FT (5.8 M) SOUTH OF THE CENTERLINE OF THE NORTHERLY PAVED DRIVE ENTRANCE TO THE SAID RESTAURANT, 10 FT (3.0 M) NORTH OF THE NORTHEAST CORNER OF A PAVED PARKING LOT, AND 6.2 FT (1.9 M) NORTHEAST OF UTILITY POLE NUMBER 79-1 AND A FIBERGLASS WITNESS POST. OWNERSHIP RAY DOTTAVIO, PHONE NO. (802) 875-4040.

TRAVERSE TIES

HVCTRL #3
 NORTH = 275583.42
 EAST = 1618985.42
 ELEV. = 568.66

PK Nail
not Tied

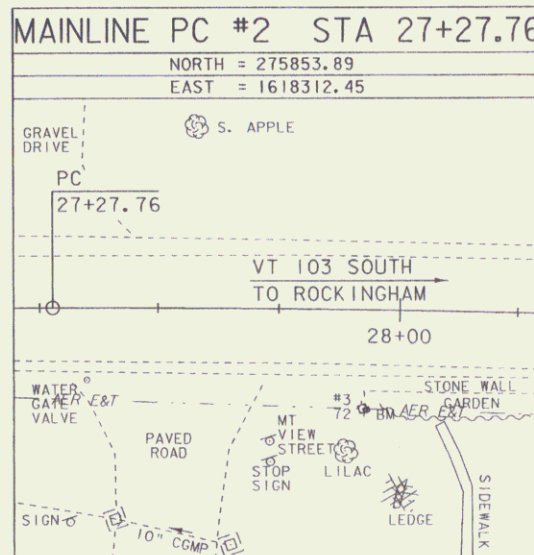
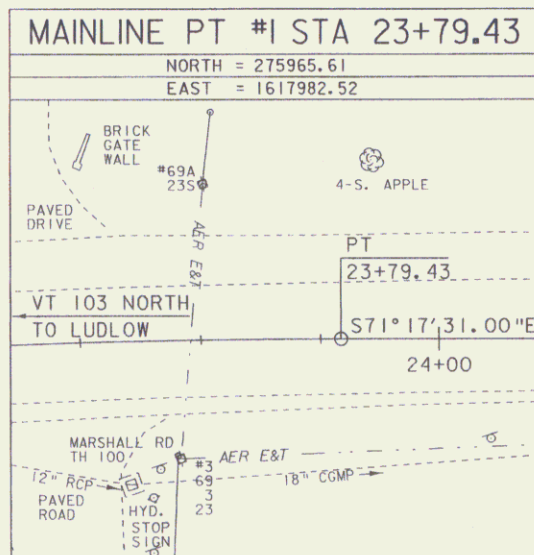


NORTH =
 EAST =
 ELEV. =

NORTH =
 EAST =
 ELEV. =

• Main Traverse Completed 09/08/98 by R. Gilman P.C. & T. Companion

ALIGNMENT TIES



NORTH =
 EAST =

NORTH =
 EAST =

NORTH =
 EAST =

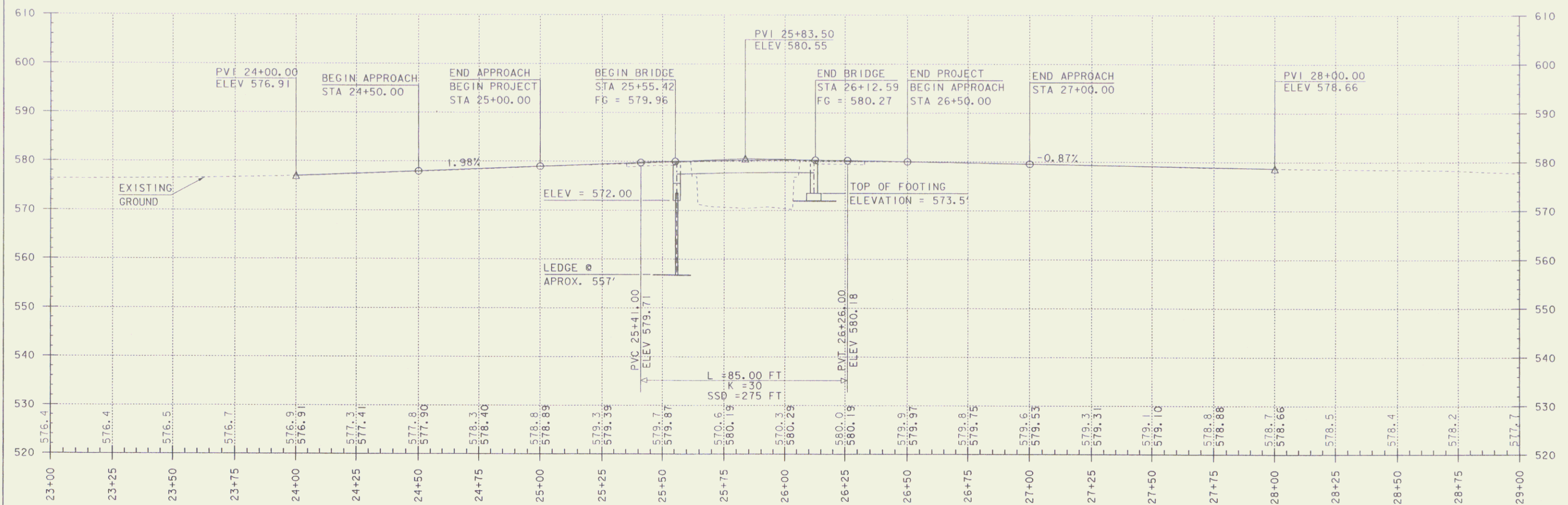
DATUM
 VERTICAL NAVD 88
 HORIZONTAL NAD 83 (92)
 ADJUSTMENT Compass

NOT TIED

NOT TIED

PROJECT NAME: Chester
 PROJECT NUMBER: BRF 025-1(28)S
 FILE NAME: 84e061\survey\84e061.dgn PLOT DATE: 28-SEP-2009
 PROJECT LEADER: DRAWN BY: R. Bullock
 DESIGNED BY: CHECKED BY:
 ALIGNMENT & TRAVERSE TIES ROW SHEET 6 OF 17

VT103 PROFILE

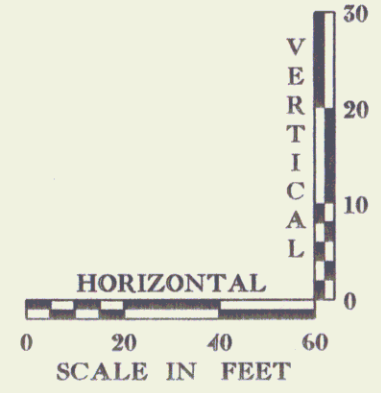
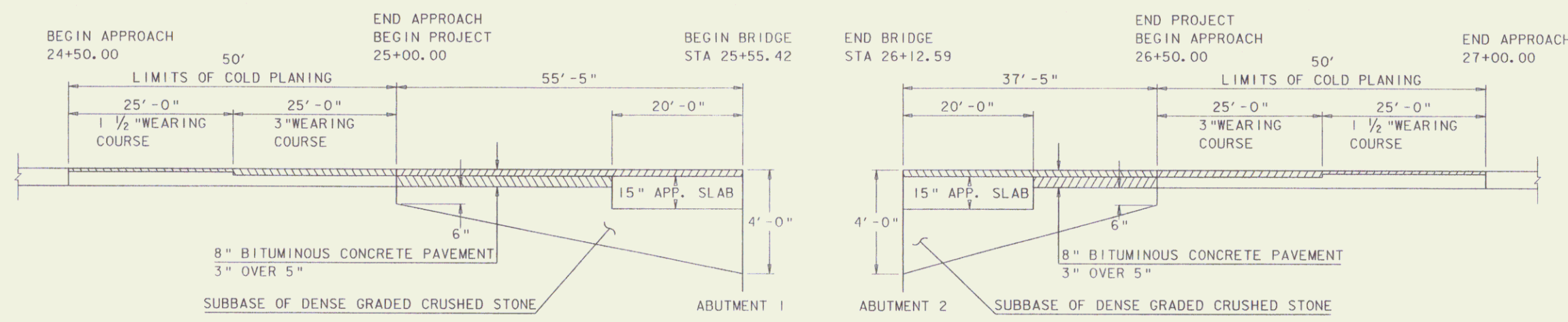


NOTES:

GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ϕ .

GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ϕ .

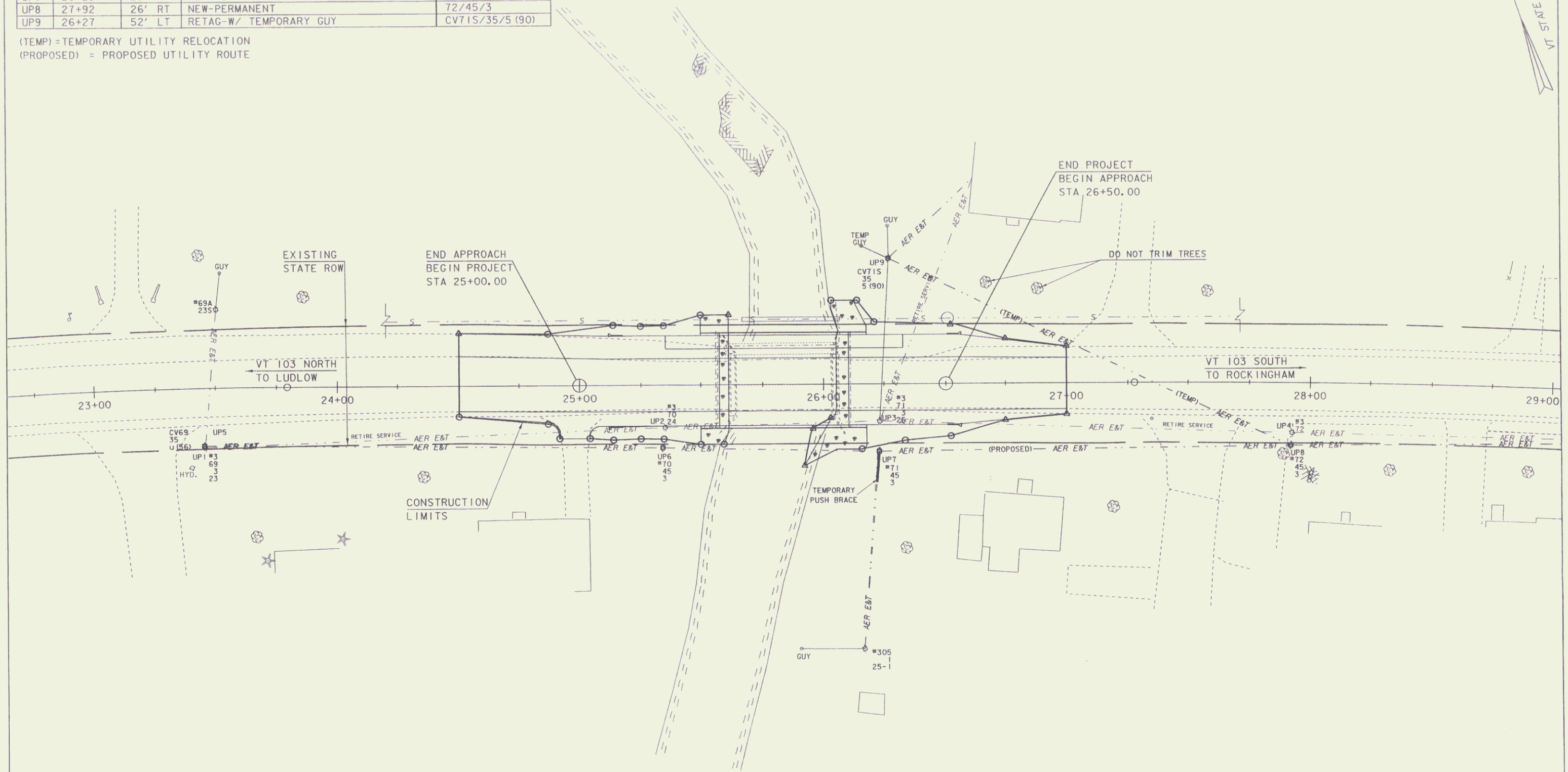
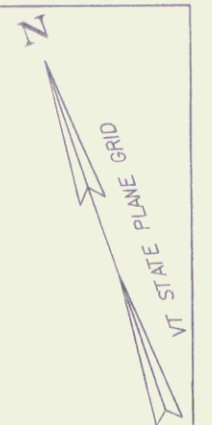
LINE	SURFACE	OFFSET
---	x84e061og	0.00
---	MAINLINE	0.00
Scaled	2.0000	Times Ver.
Scaled	1.0000	Times Hor.



PROJECT NAME: CHESTER
 PROJECT NUMBER: BRF 025-1(28)
 FILE NAME: B4e061/Str/s84e061pro.dgn PLOT DATE: 28-SEP-2009
 PROJECT LEADER: C.P.WILLIAMS DRAWN BY: M.FESSEL
 DESIGNED BY: R.S.YOUNG CHECKED BY: R.S.YOUNG
 ROW SHEET 7 OF 17

MARK	STATION	OFFSET	REMARKS	POLE NUMBER
UP1	23+45	25' RT	REMOVE	3/69/3/23
UP2	25+35	18' RT	REMOVE	3/10/24
UP3	26+23	15' RT	REMOVE	3/11/3/25
UP4	27+93	21' RT	REMOVE	3/72
UP5	23+45	24' RT	NEW-PERMANENT	CV69/35/U(56)
UP6	25+34	26' RT	NEW-PERMANENT	70/45/3
UP7	26+23	28' RT	NEW-PERMANENT-W/TEMPORARY PUSH BRACE	71/45/3
UP8	27+92	26' RT	NEW-PERMANENT	72/45/3
UP9	26+27	52' LT	RETAG-W/ TEMPORARY GUY	CV71S/35/5(90)

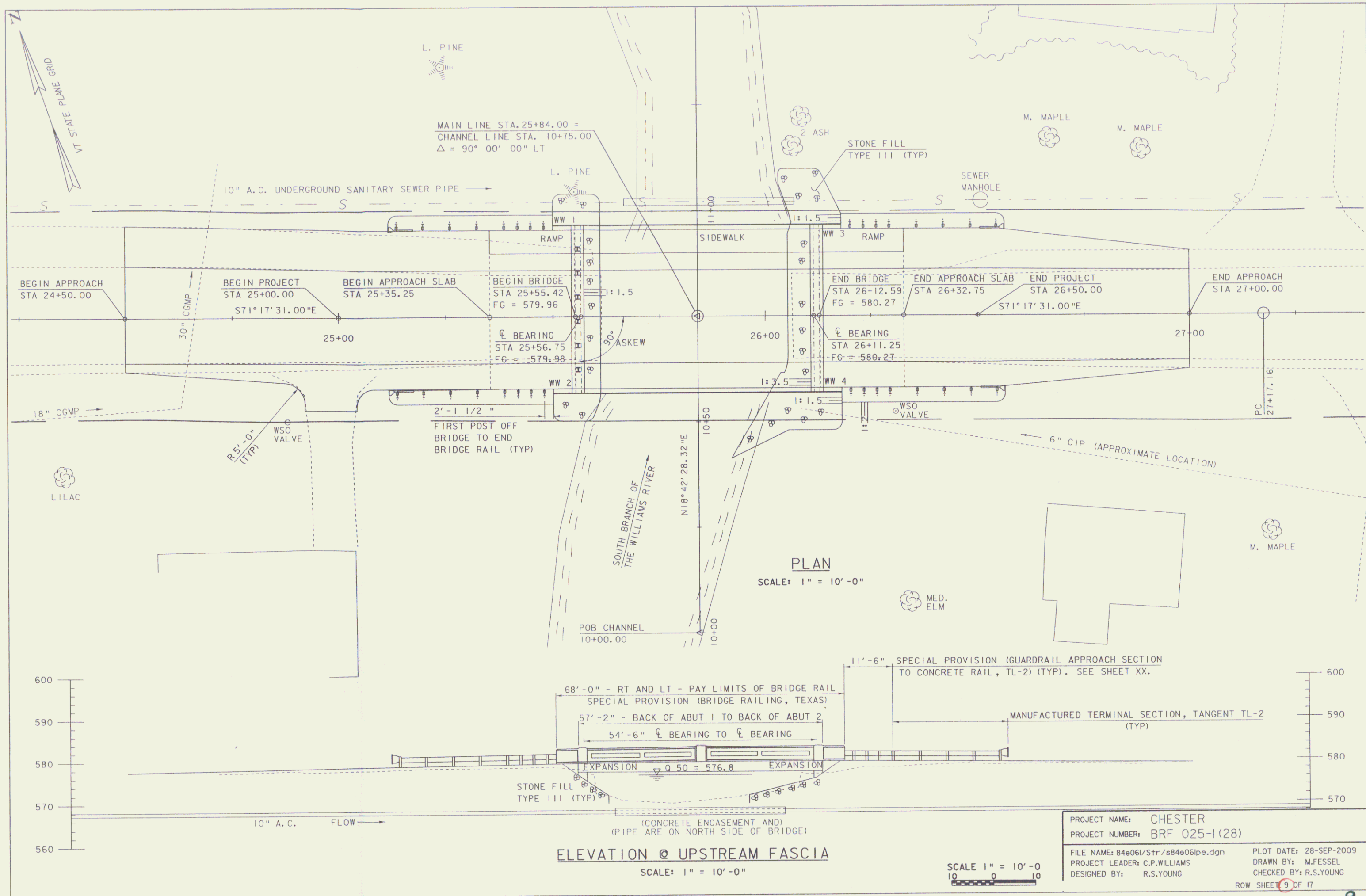
(TEMP) = TEMPORARY UTILITY RELOCATION
 (PROPOSED) = PROPOSED UTILITY ROUTE



UTILITIES RELOCATION

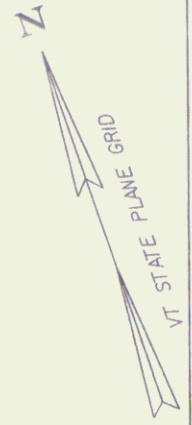
SCALE 1" = 20'-0"
 20 0 20

PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(28)
FILE NAME:	84e061/Str/bdr_u11111es.dgn
PROJECT LEADER:	C.P.WILLIAMS
DESIGNED BY:	R.S.YOUNG
PLOT DATE:	28-SEP-2009
DRAWN BY:	M.FESSEL
CHECKED BY:	R.S.YOUNG
ROW SHEET:	8 OF 17



LEGEND	
— AER E&T	AERIAL ELECTRIC & TELEPHONE
— ARCH	ARCHEOLOGICAL AREA
— HISTORIC	HISTORIC AREA
P	PROPERTY LINE
L	RIPARIAN BUFFER
— S	SANITARY SEWER PIPE


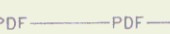
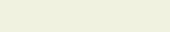
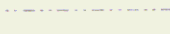

SOIL CLASSIFICATION
 SOIL TYPE: URBAN LAND-COLTON-CROGHAN COMPLEX
 SLOPES: 0-8%
 "K" FACTOR: .24/.17
 NOTE: THIS IS THE ONLY SOIL TYPE WITHIN THE PROJECT LIMITS.

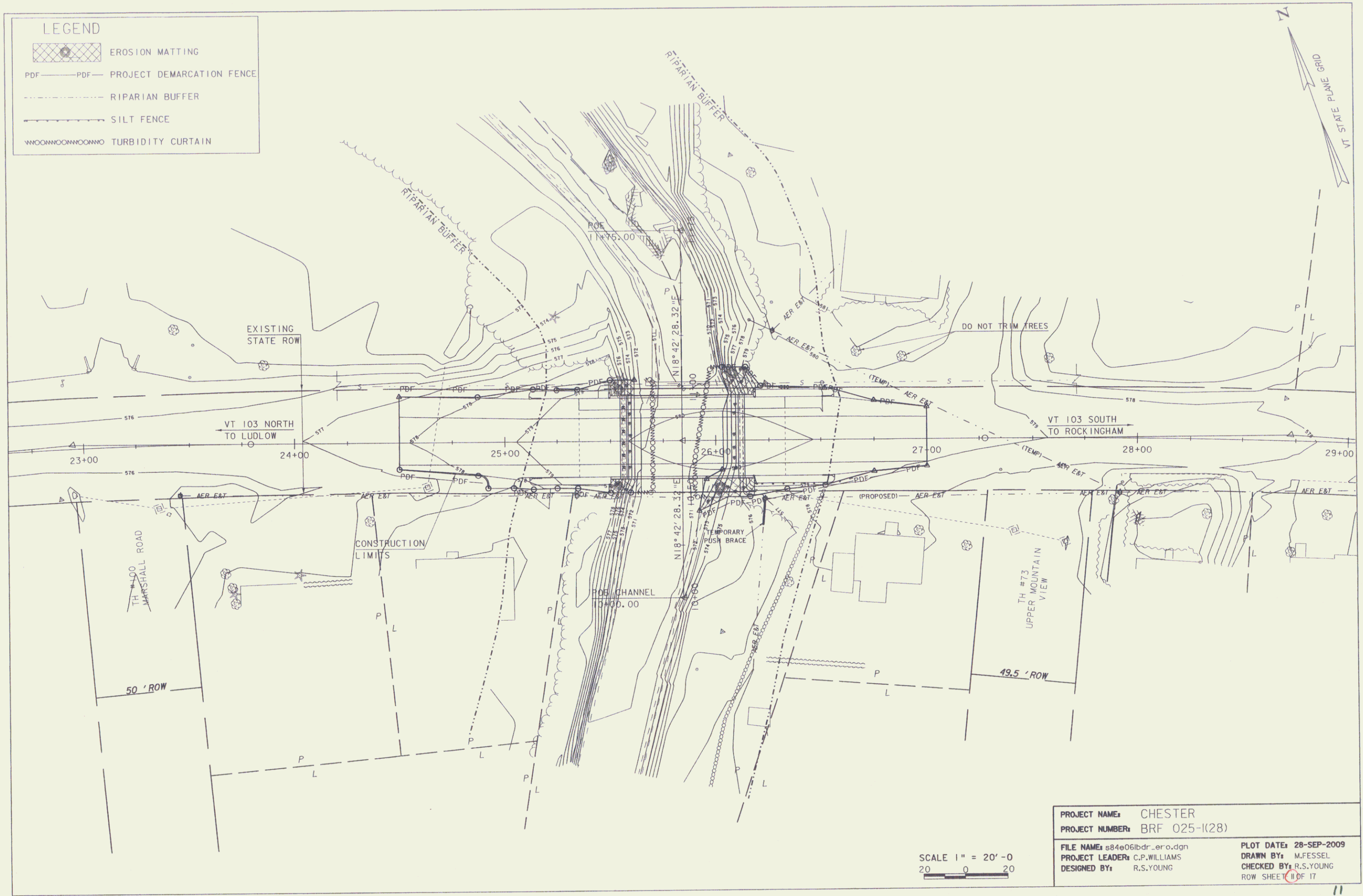


SCALE 1" = 20'-0"
 20 0 20

PROJECT NAME: CHESTER	PLOT DATE: 28-SEP-2009
PROJECT NUMBER: BRF 025-1(28)	DRAWN BY: M.FESSEL
FILE NAME: s84e06ibdr_ero.dgn	CHECKED BY: R.S.YOUNG
PROJECT LEADER: C.P.WILLIAMS	ROW SHEET 10 OF 17
DESIGNED BY: R.S.YOUNG	

LEGEND




-  EROSION MATTING
-  PROJECT DEMARCATION FENCE
-  RIPARIAN BUFFER
-  SILT FENCE
-  TURBIDITY CURTAIN

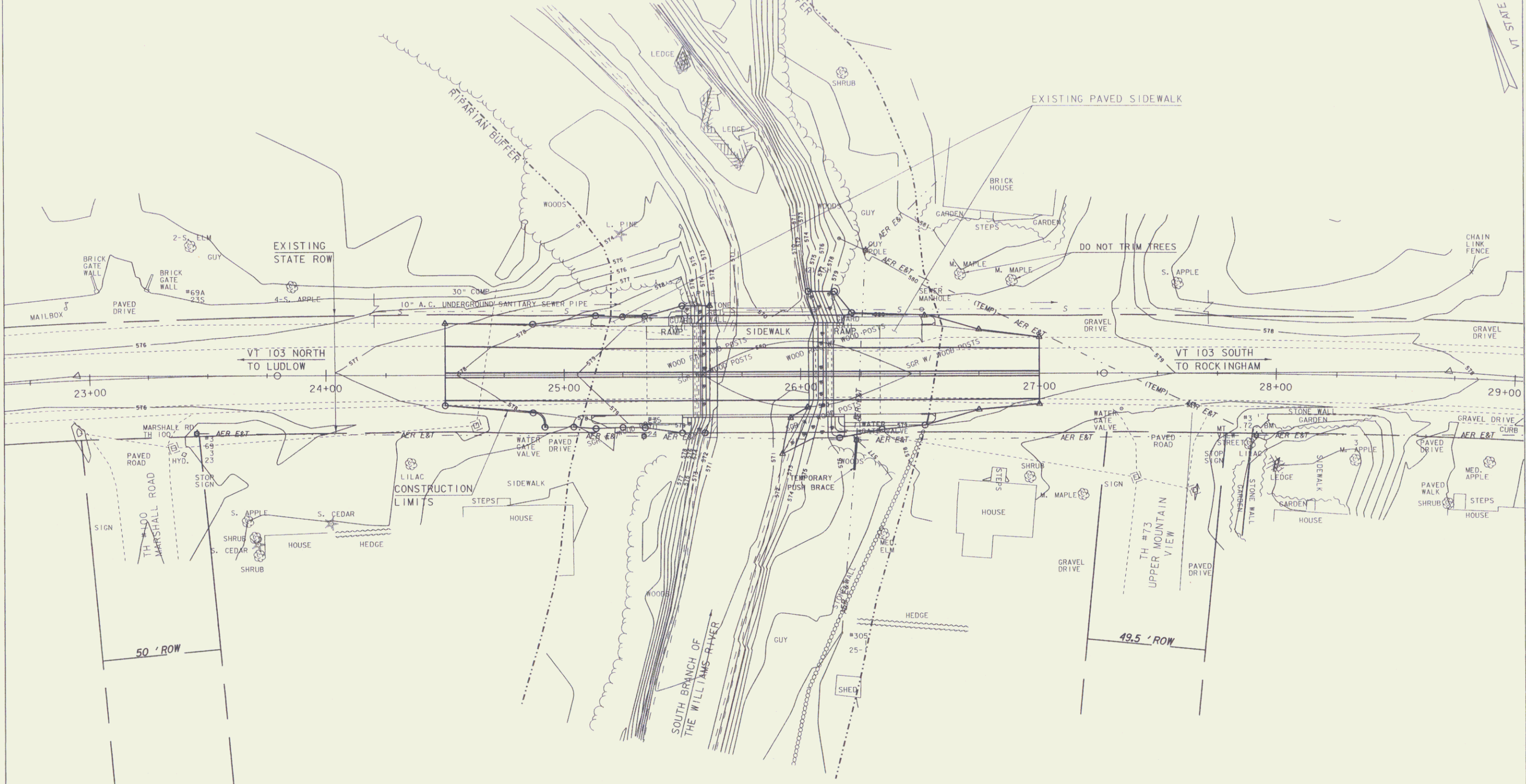


SCALE 1" = 20'-0"
 20 0 20

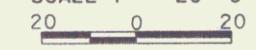
PROJECT NAME: CHESTER	PLOT DATE: 28-SEP-2009
PROJECT NUMBER: BRF 025-1(28)	DRAWN BY: M.FESSEL
FILE NAME: s84e06lbr_ero.dgn	CHECKED BY: R.S.YOUNG
PROJECT LEADER: C.P.WILLIAMS	ROW SHEET: 11 OF 17
DESIGNED BY: R.S.YOUNG	

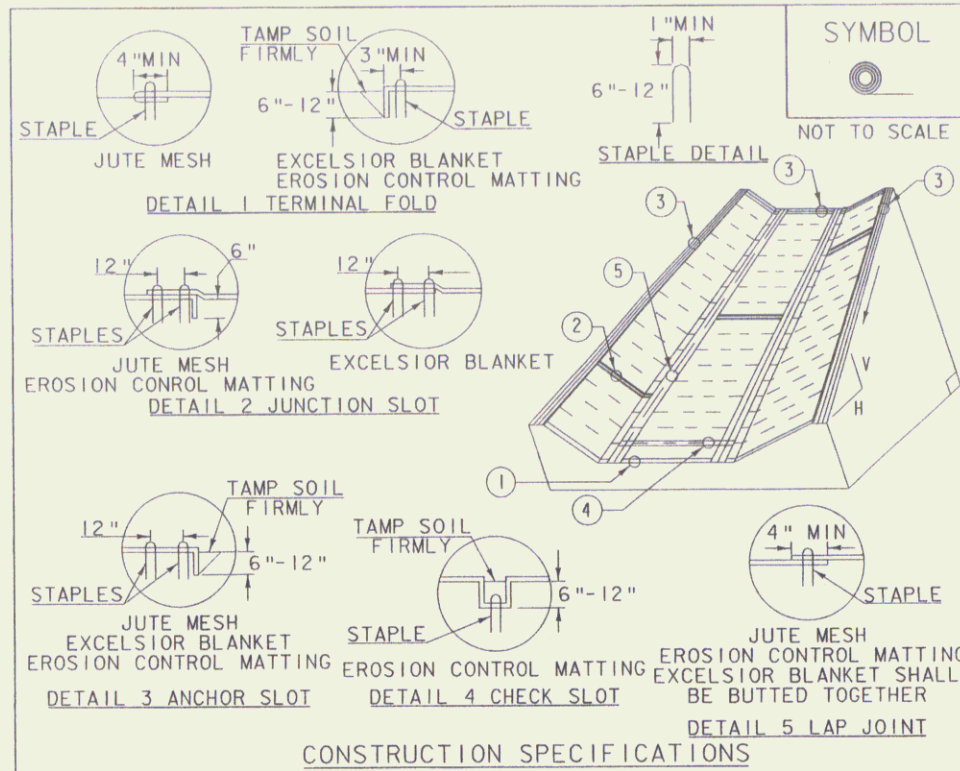
LEGEND

-  RIPARIAN BUFFER ZONE
-  EROSION MATTING
-  SEED AND MULCH



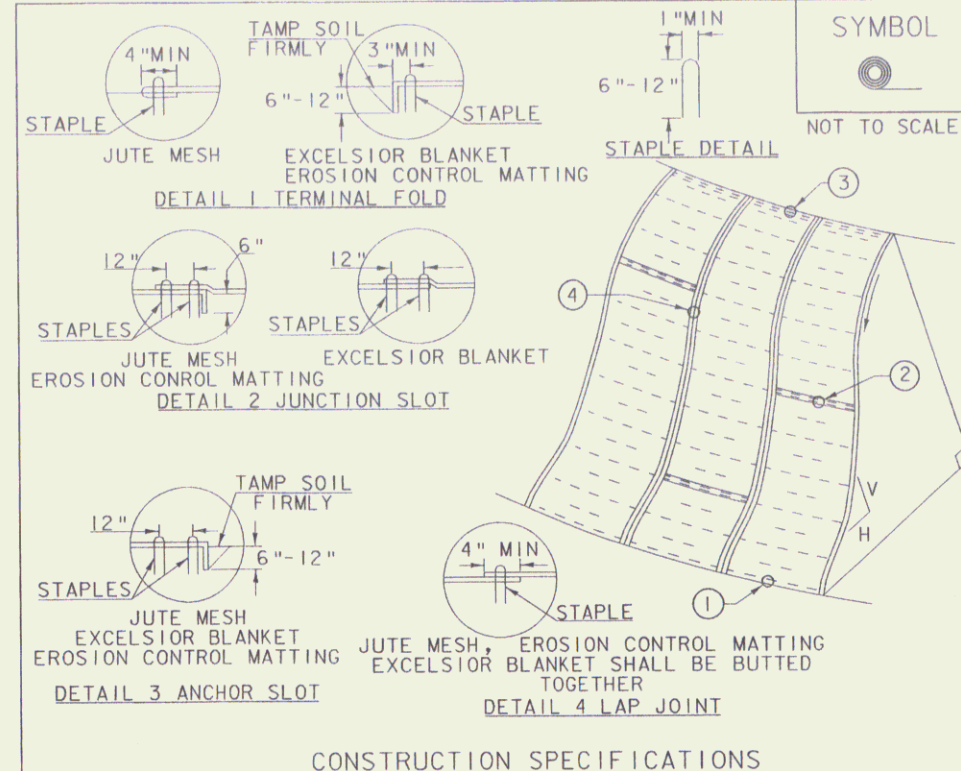
PROJECT NAME:	CHESTER	FILE NAME:	s84e06lbr_ero.dgn	PLOT DATE:	28-SEP-2009
PROJECT NUMBER:	BRF 025-1(28)	PROJECT LEADER:	C.P.WILLIAMS	DRAWN BY:	M.FESSEL
		DESIGNED BY:	R.S.YOUNG	CHECKED BY:	R.S.YOUNG
				ROW SHEET:	12 OF 17

SCALE 1" = 20'-0"




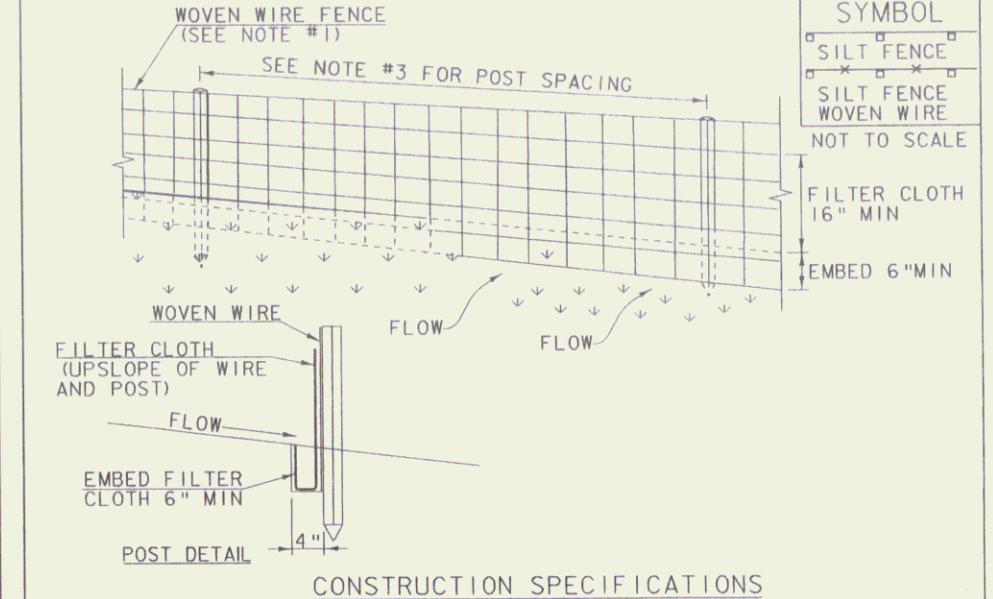
- CONSTRUCTION SPECIFICATIONS**
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	ROLLED EROSION CONTROL PRODUCT (RECP) DITCH
NOTES: REFER TO *THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- *FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).	
REVISIONS MARCH 8, 2007 JMF APRIL 16, 2007 WHF JANUARY 13, 2009 WHF	



- CONSTRUCTION SPECIFICATIONS**
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

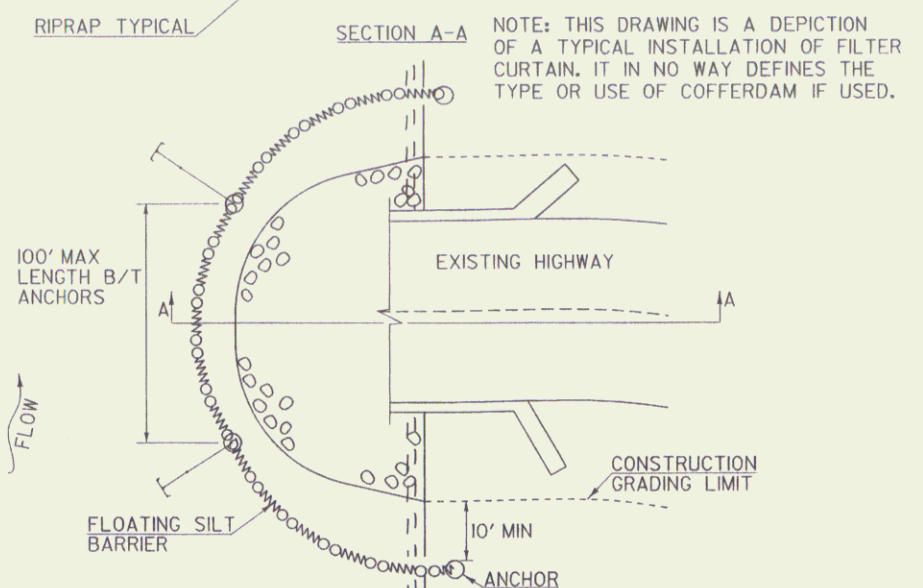
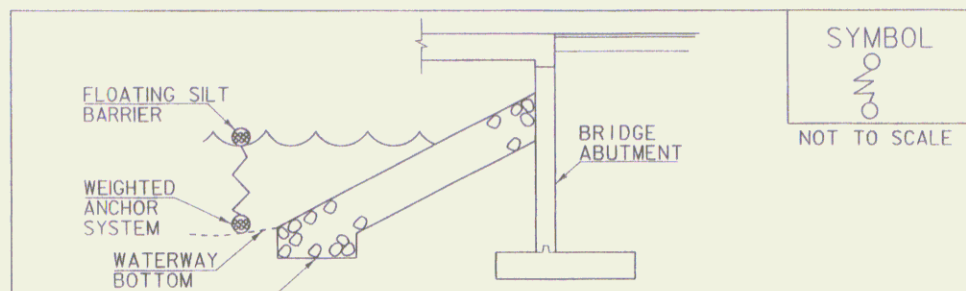
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE
NOTES: REFER TO *THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- *FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).	
REVISIONS APRIL 16, 2007 JMF JANUARY 13, 2009 WHF	



- CONSTRUCTION SPECIFICATIONS**
1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	SILT FENCE
NOTES: REFER TO *THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- *FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).	
REVISIONS MARCH 21, 2008 WHF DECEMBER 11, 2008 WHF JANUARY 13, 2009 WHF	

PROJECT NAME: CHESTER	PLOT DATE: 28-SEP-2009
PROJECT NUMBER: BRF 025-(128)	DRAWN BY: M.FESSEL
FILE NAME: s84e06ierodetalls.dgn	CHECKED BY: R.S.YOUNG
PROJECT LEADER: C.P.WILLIAMS	ROW SHEET 13 OF 17
DESIGNED BY: R.S.YOUNG	



CONSTRUCTION SPECIFICATIONS

1. FILTER CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FEET/SECOND.
2. MAXIMUM 100' LENGTH BETWEEN ANCHORS.
3. LAST SECTION SHALL TERMINATE A MINIMUM OF 10' BEYOND LIMIT OF DISTURBANCE.
4. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE WHICH ALLOWS THE CURTAIN TO CONFORM TO THE BOTTOM OF THE WATERWAY.
5. THE CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE MINIMIZING THE ESCAPE OF SEDIMENTS INTO WATERWAY.

FILTER CURTAIN

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
SEPTEMBER 4, 2009	WHF

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 FOR GEOTEXTILE FOR FILTER CURTAIN (PAY ITEM 649.61).

**SEEDING FORMULA
URBAN AREAS**

% WT.	LBS. /A.	NAME	PUR %	GERM %
42.5	34.0	CREEPING RED FESCUE	98	85
10.0	8.0	PERENIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	80.0			

SEEDING 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 FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(28)

FILE NAME: s84e061erodetals.dgn PLOT DATE: 28-SEP-2009
PROJECT LEADER: C.P.WILLIAMS DRAWN BY: M.FESSEL
DESIGNED BY: R.S.YOUNG CHECKED BY: R.S.YOUNG
ROW SHEET 14 OF 17

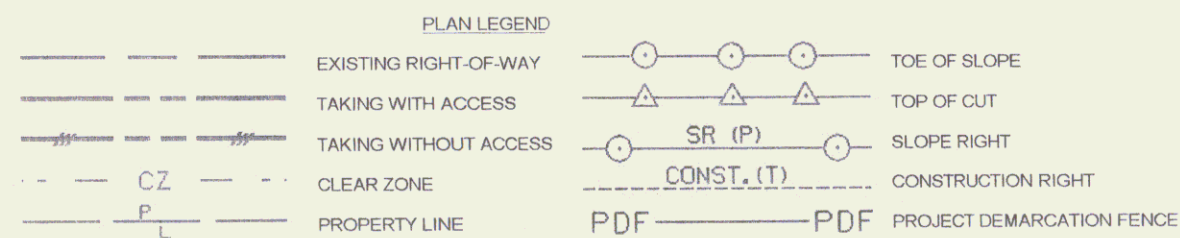
RIGHT - OF - WAY DETAIL SHEET

TABLE OF PROPERTY ACQUISITION

PARCEL NO	PROPERTY OWNER	SHEET NO	BEGINNING STATION	ENDING STATION	TAKE	REMAINDER	RIGHT			RECORDING DATA					REMARKS
					AREA±	AREA±	TYPE	(T)(P)	AREA ±	TITLE	DATE	TOWN / CITY	BOOK	PAGE	
1	DODIER, JACQUES J.	16	25+14.57 LT 25+35.88 LT 25+55.22 LT	25+69.98 LT 25+61.25 LT			CONST CHANNEL REMOVE	(T) (P) (T)	73 SF 83 SF						INCLUDES PDF & EC TREE (PINE)
2	THE BRATTLEBORO SAVINGS AND LOAN ASSOCIATION, F.A.	16	23+46.04 RT	24+37.25 RT			UTILITY	(P)	716 SF						
3	PECK, PRISCILLA E.	16	24+36.37 RT 24+88.00 RT	25+32.21 RT			UTILITY ACCESS	(P) (T)	883 SF	WD	03/19/10	CHESTER	100	79-80	ACCESS THRU BARRICADES
4	UNION HIGH SCHOOL DISTRICT #35 (GREEN MOUNTAIN UNION HIGH SCHOOL)	16	25+30.74 RT 25+32.22 RT 25+91.39 RT 25+92.00 RT 26+23.00 RT	26+60.74 RT 25+59.26 RT 26+42.41 RT 26+27.56 RT			UTILITY CONST CONST CHANNEL INSTALL	(P) (T) (T) (P) (T)	1,308 SF 41 SF 136 SF 97 SF 41 SF						INCLUDES PDF & EC PUSH BRACE, (UTILITY)
5	HINDS, JR., ALLISON U. & CAMPERCHIOLI, JEANNE	16	26+56.98 RT	27+28.87 RT			UTILITY	(P)	734 SF	WD	04/08/10	CHESTER	100	104-105	
6	BITTNER, GEORGE W. & MARY B.	16, 17	25+96.00 LT 26+03.23 LT 26+07.00 LT 26+11.30 LT 26+15.66 LT 26+23.14 LT 26+26.84 LT 26+27.00 LT 26+27.00 LT	26+05.46 LT 26+17.63 LT 26+53.47 LT 26+15.66 LT 26+29.72 LT 26+61.63 LT 26+84.39 LT			CONST CHANNEL TRIM SLOPE INSTALL UTILITY INSTALL UTILITY UTILITY	(T) (P) (T) (P) (T) (P) (T) (T)	71 SF 111 SF 46 SF 153 SF	WD	03/19/10	CHESTER	100	81-83	INCLUDES PDF & EC TREES INCLUDES PDF & EC GUY WIRE & ANCHOR GUY WIRE & ANCHOR AERIAL WIRE "DO NOT TRIM" TREES, AERIAL WIRE
7	PERRY, PAMELA L.	16, 17	27+77.99 RT	28+55.39 RT			UTILITY	(P)	644 SF						
8	WESTINE, HOWARD R. & DORIS I.	17	28+55.14 RT	29+23.37 RT			UTILITY	(P)	396 SF	WD	03/19/10	CHESTER	100	84-85	
9	TOWN OF CHESTER		23+46.04 RT	29+23.38 RT			UTILITY								
10	CENTRAL VERMONT PUBLIC SERVICE CORPORATION		23+46.04 RT	29+23.38 RT			UTILITY								
11	COMCAST OF CONNECTICUT, ETC LLC		23+46.04 RT	29+23.38 RT			UTILITY								
12	TELEPHONE OPERATING COMPANY OF VERMONT LLC		23+46.04 RT	29+23.38 RT			UTILITY								

TABLE OF REVISIONS

REVISION NO	SHEET NO	DESCRIPTION	DATE
1	15, 16	PARCEL NO. 3 PECK. REMOVE KATHLEEN PECK TRAVERSE AS AN OWNER PER C.O. 9580. MADE BY: MR	12/08/09 APPROVED BY: HP



EC - EROSION CONTROL
(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: HARRY PETROVS, DATE 11-12-09,
CHIEF, PLANS & TITLES

PLOT DATE 05/26/10

PROJECT NAME: **CHESTER**
PROJECT NUMBER: **BRF 025-1(28)**
FILE NAME: r04e061detail.xls
PROJECT LEADER: C. WILLIAMS
DESIGNED BY: R. YOUNG
R.O.W. DETAIL SHEET #1

PLOT DATE:
DRAWN BY: MT
CHECKED BY: JB
ROW SHEET 15 OF 17

CONSTRUCT 5' PAVED APRON
 @ STA 24+98 - 12' WIDTH

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA 25+11 LT - 25+61 LT
 STA 26+06 LT - 26+57 LT
 STA 25+23 RT - 25+61 RT
 STA 26+07 RT - 26+45 RT

REMOVE GRAVEL BAR
 STA 10+41 RT - 10+61 RT

SPECIAL PROVISION (GUARDRAIL APPROACH SECTION TO CONCRETE BRIDGE RAIL, TL-2)
 STA 25+38.50 LT - 25+51.00 LT
 STA 26+17.00 LT - 26+29.50 LT
 STA 25+38.50 RT - 25+51.00 RT
 STA 26+17.00 RT - 26+29.50 RT

REMOVING SIGNS
 STA 22+56 RT
 STA 25+59 LT
 STA 25+59 RT
 STA 25+61 RT
 STA 26+07 LT
 STA 26+07 RT
 STA 26+13 LT
 STA 28+64 LT

TRAFFIC SIGNS, TYPE A
 STA 25+49 RT
 STA 26+19 LT

REMOVING LARGE TREES
 STA 25+55 LT
 TRIM TREES
 STA 26+06 LT

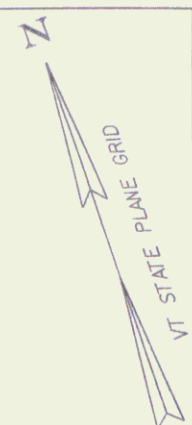
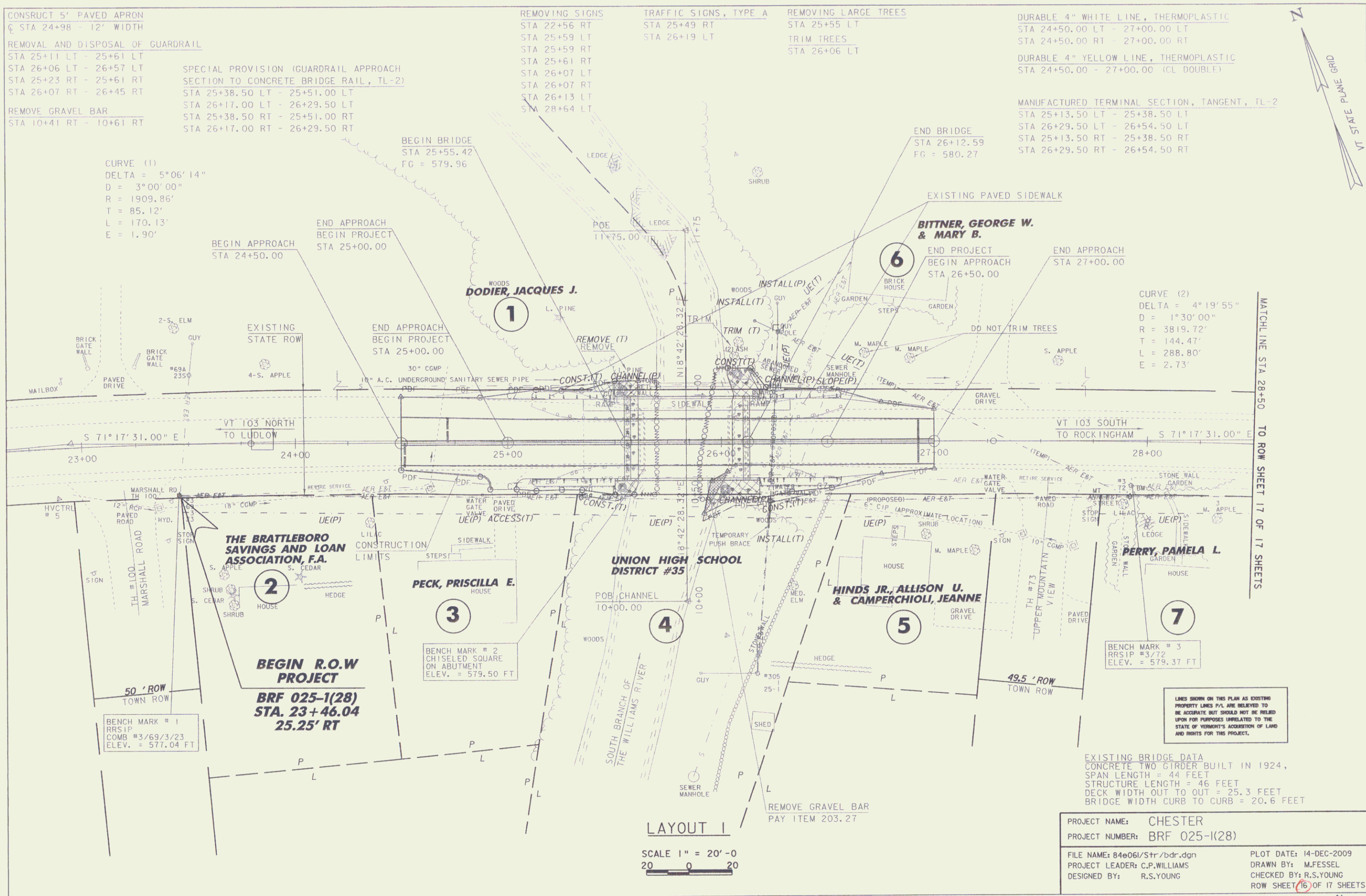
DURABLE 4" WHITE LINE, THERMOPLASTIC
 STA 24+50.00 LT - 27+00.00 LT
 STA 24+50.00 RT - 27+00.00 RT

DURABLE 4" YELLOW LINE, THERMOPLASTIC
 STA 24+50.00 - 27+00.00 (CL DOUBLE)

MANUFACTURED TERMINAL SECTION, TANGENT, TL-2
 STA 25+13.50 LT - 25+38.50 LT
 STA 26+29.50 LT - 26+54.50 LT
 STA 25+13.50 RT - 25+38.50 RT
 STA 26+29.50 RT - 26+54.50 RT

CURVE (1)
 DELTA = 5°06'14"
 D = 3°00'00"
 R = 1909.86'
 T = 85.12'
 L = 170.13'
 E = 1.90'

CURVE (2)
 DELTA = 4°19'55"
 D = 1°30'00"
 R = 3819.72'
 T = 144.47'
 L = 288.80'
 E = 2.73'



MATCHLINE STA 28+50 TO ROW SHEET 17 OF 17 SHEETS

BENCH MARK # 1
 RRS IP #3/72
 COMB #3/69/3/23
 ELEV. = 577.04 FT

BEGIN R.O.W PROJECT
 BRF 025-1(28)
 STA. 23+46.04
 25.25' RT

BENCH MARK # 2
 CHISELED SQUARE
 ON ABUTMENT
 ELEV. = 579.50 FT

BENCH MARK # 3
 RRS IP #3/72
 ELEV. = 579.37 FT

NOTED SHOWN ON THIS PLAN AS EXISTING
 PROPERTY LINES ARE BELIEVED TO
 BE ACCURATE BUT SHOULD NOT BE RELIED
 UPON FOR PURPOSES UNRELATED TO THE
 STATE OF VERMONT'S ACQUISITION OF LAND
 AND RIGHTS FOR THIS PROJECT.

EXISTING BRIDGE DATA
 CONCRETE TWO GIRDER BUILT IN 1924,
 SPAN LENGTH = 44 FEET
 STRUCTURE LENGTH = 46 FEET
 DECK WIDTH OUT TO OUT = 25.3 FEET
 BRIDGE WIDTH CURB TO CURB = 20.6 FEET

LAYOUT 1

SCALE 1" = 20'-0"
 20 0 20

PROJECT NAME: CHESTER
 PROJECT NUMBER: BRF 025-1(28)
 FILE NAME: B4e061/Str/bdr.dgn
 PROJECT LEADER: C.P.WILLIAMS
 DESIGNED BY: R.S.YOUNG
 PLOT DATE: 14-DEC-2009
 DRAWN BY: M.FESSEL
 CHECKED BY: R.S.YOUNG
 ROW SHEET 16 OF 17 SHEETS



BITTNER, GEORGE W.
& MARY B.

6

NF DAVISON

TO ROW SHEET 16 OF 17 SHEETS
MATCHLINE STA 28+50

29+00

30+00

VT 103 SOUTH
TO ROCK INGHAM

30+94

WESTINE, HOWARD R.
& DORIS I.

8

NF STEWART

PERRY, PAMELA L.

7

END R.O.W
PROJECT
BRF 025-1(28)
STA. 29+23.38
25.34' 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
STATE OF VERMONT'S ACQUISITION OF LAND
AND RIGHTS FOR THIS PROJECT.

LAYOUT 2

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(28)

FILE NAME: 84e061/Str/bdr.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG

PLOT DATE: 03-NOV-2009
DRAWN BY: M.FESSEL
CHECKED BY: R.S.YOUNG
ROW SHEET 17 OF 17 SHEETS