INDEX OF SHEETS
(SEE SHEET 2)

RECORD PLANS	
CONTRACTOR:	WINTERSET, INC.– LYNDONVILLE, VT
RESIDENT ENGINEER:	PAUL PERRY
CONSTRUCTION BEGAN:	SEPTEMBER 7, 2010
CONSTRUCTION COMPLETE:	DECEMBER 2, 2010
RECORD PLANS BY:	PAUL PERRY & NICK GARBACIK

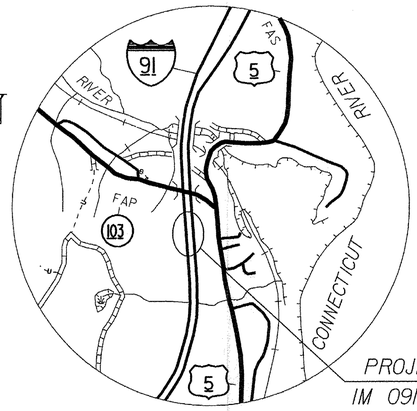
I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

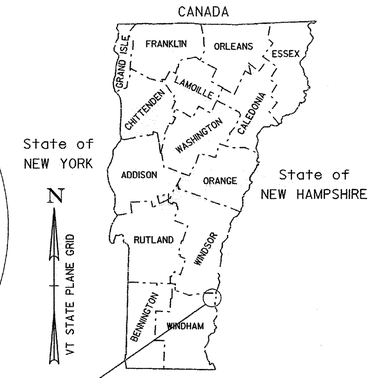
BY Paul K. Perry RESIDENT ENGINEER

DATE 6-12-13

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.

STATE OF VERMONT
AGENCY OF TRANSPORTATION





PROPOSED IMPROVEMENT
TOWN OF ROCKINGHAM
COUNTY OF WINDHAM
PRINCIPLE ARTERIAL - INTERSTATE 91 (NORTHBOUND)

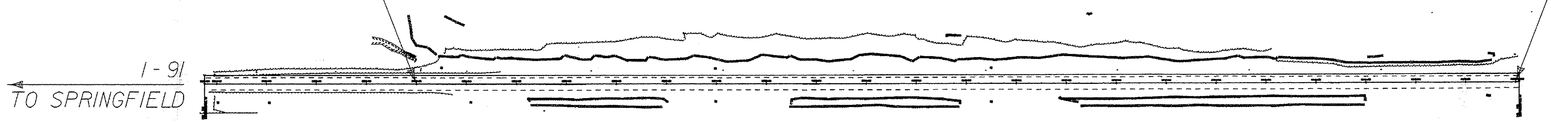
PROJECT LOCATION: BEGINNING AT APPROXIMATELY MM 34.70 AND EXTENDING NORTHERLY 0.42 MILES TO APPROXIMATELY MM 35.12, ADJACENT TO THE NORTHBOUND LANE.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES ROCK SCALING, ROCK DOWELING, TRIM BLASTING, SHOTCRETING, DITCHING, DRAINAGE, TRAFFIC CONTROL AND OTHER RELATED ITEMS.

LENGTH OF PROJECT: 2,200 FT 0.42 MILES

STATION 1860+00
END PROJECT
IM 091 - 1(57)

STATION 1838+00
BEGIN PROJECT
IM 091 - 1(57)





0 150 300
SCALE IN FEET

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 : VTRANS
SURVEYED DATE : 2008

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83(CORS96)

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.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED Richard Tetreault DATE 5-25-10

PROJECT MANAGER : KEN ROBIE

PROJECT NAME : ROCKINGHAM
PROJECT NUMBER : IM 091-1(57)

SHEET 1 OF 78 SHEETS

INDEX OF SHEETS

INDEX OF SHEETS

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2.	INDEX OF SHEETS
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4.-7.	TYPICAL DETAIL SHEETS
8.-9.	QUANTITY SHEETS
10.	DRAINAGE DETAIL SHEET
11.	EARTHWORKS SHEET
12.	GENERAL NOTES
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27.-65.	CROSS SECTION SHEETS
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69.-71.	EXISTING CONDITIONS LAYOUT SHEETS
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76.	EPSC NARRATIVE
77.-78.	TRAFFIC CONTROL SHEETS

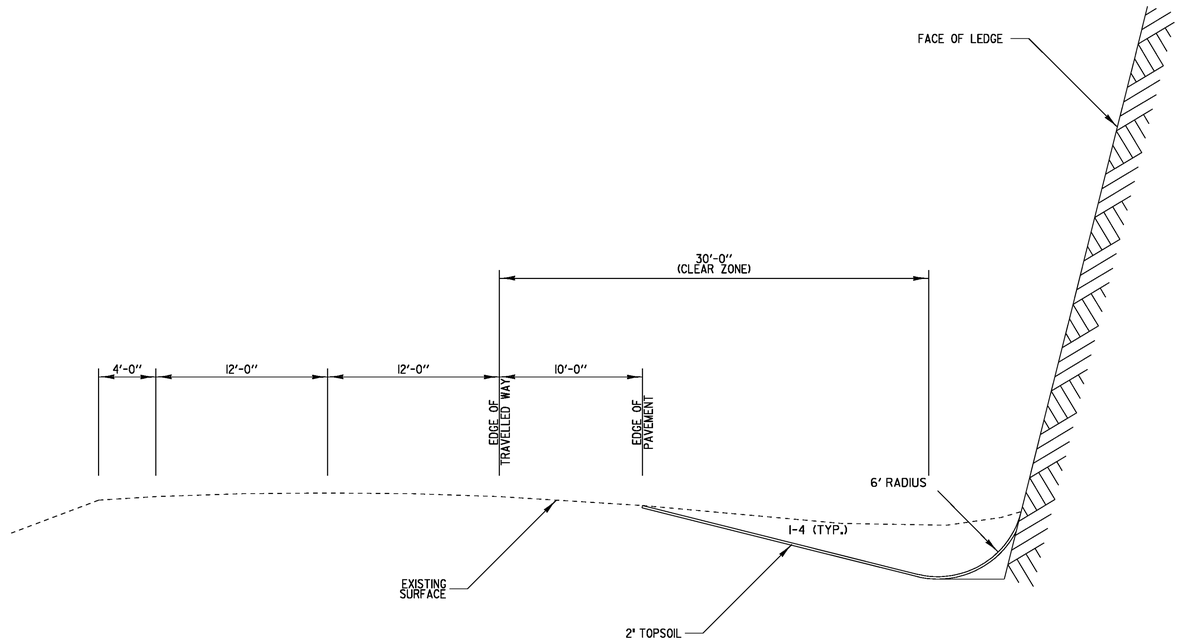
VAOT DESIGN STANDARDS

A-60	STANDARD TYPICAL FOR SLOPES IN SOLID ROCK EXCAVATION DRILLING AND BLASTING OF SOLID ROCK SUBGRADE	06-01-94
B-5	EMBANKMENT ON EARTH SLOPE, EMBANKMENT ON ROCK SLOPE MUCK EXCAVATION, TYPICAL SLOPE ROUNDING	06-01-94
D-4	VARIOUS DRAINAGE DETAILS	08-13-07
D-8	REINFORCED CONCRETE DROP INLET WITH PRECAST COVER AND GRATE	01-03-00
E-100	CONSTRUCTION APPROACH SIGNS	01-02-04
E-101	CONSTRUCTION SIGN DETAILS	05-30-03
E-102	CONSTRUCTION SIGN DETAILS	06-30-03
E-102A	CONSTRUCTION SIGN DETAILS	05-01-04
E-106	TRAFFIC CONTROL MISCELLANEOUS DETAILS	03-01-04
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	06-30-03
E-109	TRAFFIC CONTROL DEVICES FOR TEMPORARY TERMINATION OF FREEWAY FACILITIES	08-08-95
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE	08-08-95
G-1	STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)	01-03-00

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

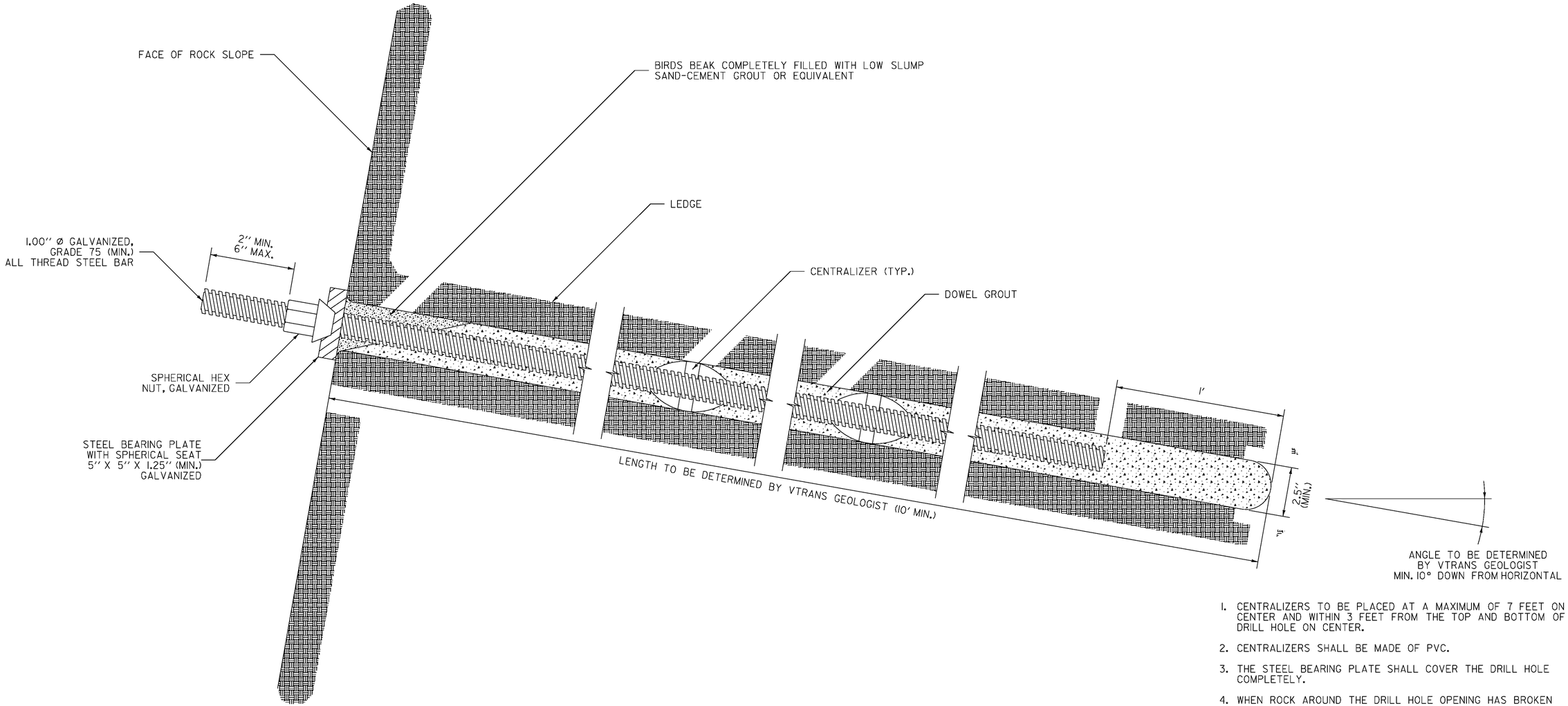
FILE NAME: 07a158/Design/d07a158frm.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
INDEX OF SHEETS

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 2 OF 78



I-91 TYPICAL DITCHING DETAIL

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158frm.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TYPICAL SECTION SHEET	SHEET 3 OF 78



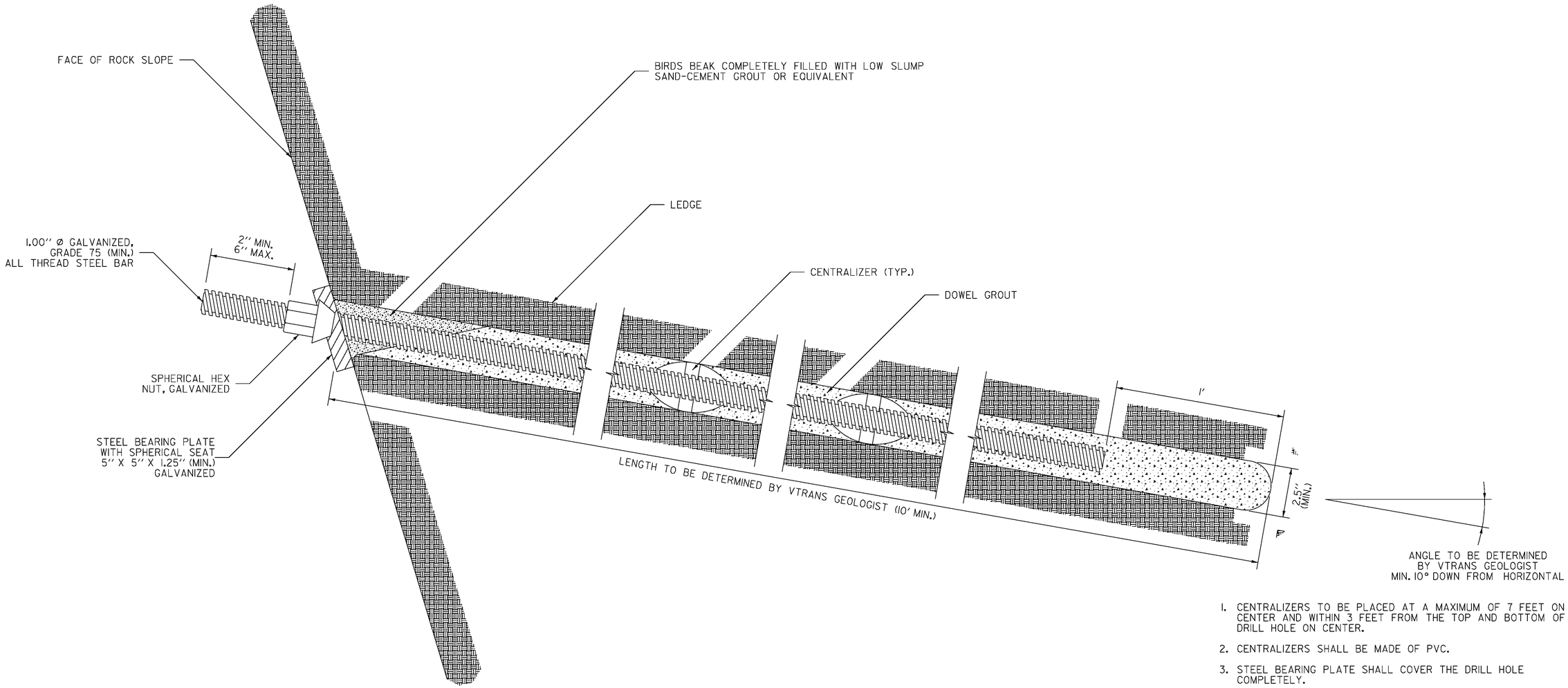
TYPICAL ROCK DOWEL DETAIL

NOT TO SCALE

1. CENTRALIZERS TO BE PLACED AT A MAXIMUM OF 7 FEET ON CENTER AND WITHIN 3 FEET FROM THE TOP AND BOTTOM OF DRILL HOLE ON CENTER.
2. CENTRALIZERS SHALL BE MADE OF PVC.
3. THE STEEL BEARING PLATE SHALL COVER THE DRILL HOLE COMPLETELY.
4. WHEN ROCK AROUND THE DRILL HOLE OPENING HAS BROKEN A CEMENT PAD FOR THE STEEL BEARING PLATE SHALL BE MADE AS NEEDED.
5. THE TOTAL LENGTH OF THE STEEL BAR TO BE PAID FOR SHALL BE EQUAL TO THE LENGTH OF THE DRILL HOLE, THE BAR CAN BE TRIMMED AFTER INSTALLATION.
6. ALL DRILL HOLES SHALL BE OVERDRILLED BY ONE FOOT (ONE FOOT BETWEEN END OF BAR AND BOTTOM OF DRILL HOLE).
7. PAY ITEM 900.640 SPECIAL PROVISION (ROCK DOWELING).

PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)

FILE NAME: 07A158/Design/d07a158det.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TYPICAL DETAIL SHEET 1	SHEET 4 OF 78



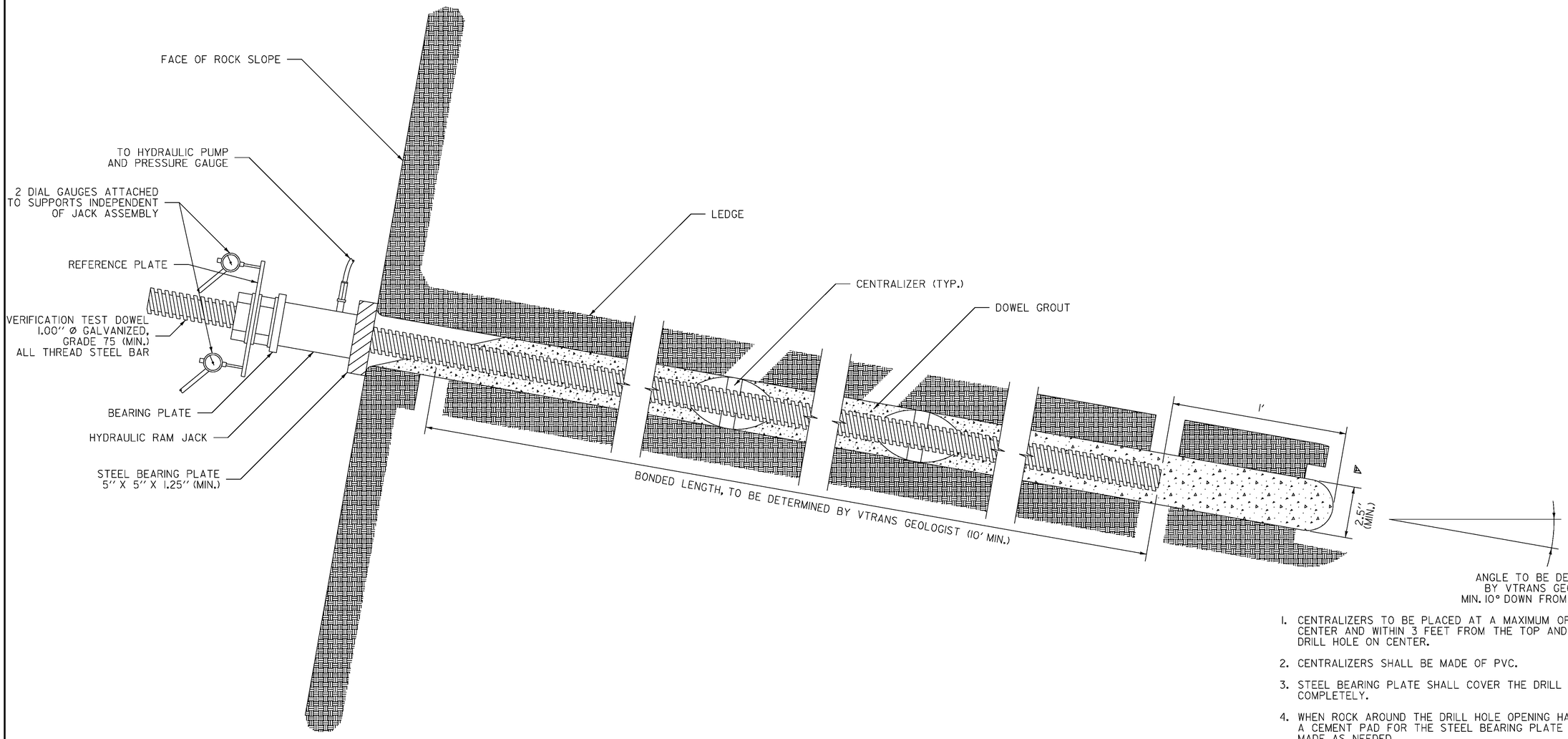
TYPICAL ROCK DOWEL DETAIL OVERHANGING CONDITION

NOT TO SCALE

1. CENTRALIZERS TO BE PLACED AT A MAXIMUM OF 7 FEET ON CENTER AND WITHIN 3 FEET FROM THE TOP AND BOTTOM OF DRILL HOLE ON CENTER.
2. CENTRALIZERS SHALL BE MADE OF PVC.
3. STEEL BEARING PLATE SHALL COVER THE DRILL HOLE COMPLETELY.
4. WHEN ROCK AROUND THE DRILL HOLE OPENING HAS BROKEN A CEMENT PAD FOR THE STEEL BEARING PLATE SHALL BE MADE AS NEEDED.
5. THE TOTAL LENGTH OF THE STEEL BAR TO BE PAID FOR SHALL BE EQUAL TO THE LENGTH OF THE DRILL HOLE, THE BAR CAN BE TRIMMED AFTER INSTALLATION.
6. ALL DRILL HOLES SHALL BE OVERDRILLED BY ONE FOOT. (ONE FOOT BETWEEN END OF BAR AND BOTTOM OF DRILL HOLE).
7. PAY ITEM 900.640 SPECIAL PROVISION (ROCK DOWELING).

PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)

FILE NAME: 07a158/Design/d07a158det.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TYPICAL DETAIL SHEET 2	SHEET 5 OF 78

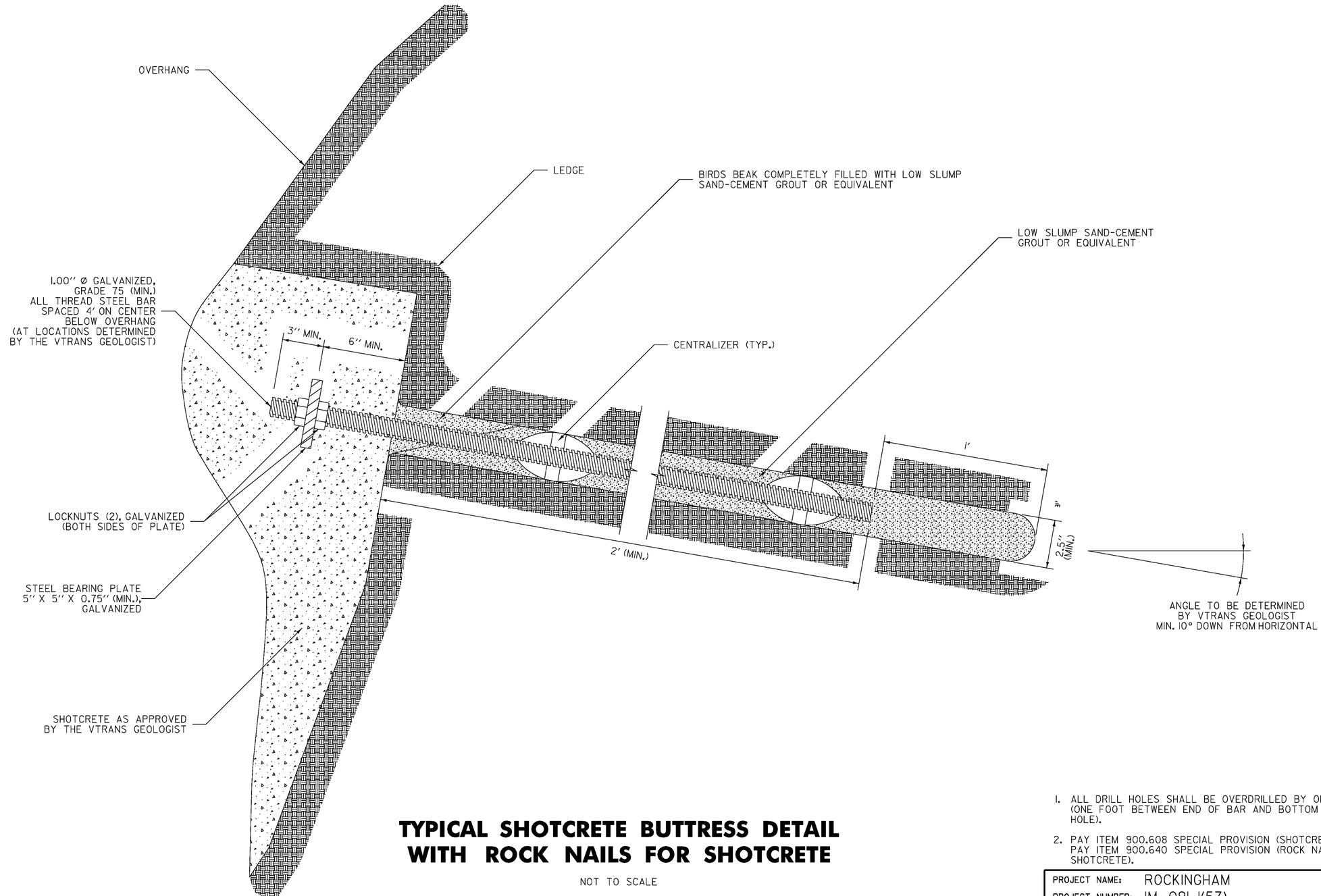


TYPICAL ROCK DOWEL PULL-OUT TEST DETAIL

NOT TO SCALE

1. CENTRALIZERS TO BE PLACED AT A MAXIMUM OF 7 FEET ON CENTER AND WITHIN 3 FEET FROM THE TOP AND BOTTOM OF DRILL HOLE ON CENTER.
2. CENTRALIZERS SHALL BE MADE OF PVC.
3. STEEL BEARING PLATE SHALL COVER THE DRILL HOLE COMPLETELY.
4. WHEN ROCK AROUND THE DRILL HOLE OPENING HAS BROKEN A CEMENT PAD FOR THE STEEL BEARING PLATE SHALL BE MADE AS NEEDED.
5. THE TOTAL LENGTH OF THE STEEL BAR TO BE PAID FOR SHALL BE EQUAL TO THE LENGTH OF THE DRILL HOLE, THE BAR CAN BE TRIMMED AFTER INSTALLATION.
6. ALL DRILL HOLES SHALL BE OVERDRILLED BY ONE FOOT. (ONE FOOT BETWEEN END OF BAR AND BOTTOM OF DRILL HOLE).
7. PAY ITEM 900.645 SPECIAL PROVISION (ROCK DOWEL TESTING).

PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)
FILE NAME: 07a158/Design/d07a158det.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TYPICAL DETAIL SHEET 3	SHEET 6 OF 78



TYPICAL SHOTCRETE BUTTRESS DETAIL WITH ROCK NAILS FOR SHOTCRETE

NOT TO SCALE

1. ALL DRILL HOLES SHALL BE OVERDRILLED BY ONE FOOT. (ONE FOOT BETWEEN END OF BAR AND BOTTOM OF DRILL HOLE).
2. PAY ITEM 900.608 SPECIAL PROVISION (SHOTCRETE) AND PAY ITEM 900.640 SPECIAL PROVISION (ROCK NAIL FOR SHOTCRETE).

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07A158/Design/d07a158det.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TYPICAL DETAIL SHEET 4	SHEET 7 OF 78

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
ROADWAY	EROSION CONTROL	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
1			1		ACRE	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.11	.006			
8747			8747		CY	COMMON EXCAVATION	203.15	-			
50			50		CY	SOLID ROCK EXCAVATION	203.16	EST			
25			25		CY	TRENCH EXCAVATION OF EARTH	204.20	7			
15			15		CY	TRENCH EXCAVATION OF ROCK	204.21	EST			
1			1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-			
15			15		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	5			
20			20		LF	24" CPEP	601.0920	2			
3			3		EACH	24" CPEPES	601.7020	-			
3			3		EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-			
3			3		EACH	CAST IRON COVER WITH FRAME	604.55	-			
40			40		HR	POWER BROOM RENTAL, TYPE II	608.31	EST			
3			3		EACH	YIELDING MARKER POSTS	619.17	-			
2			2		EACH	ENERGY ABSORPTION ATTENUATOR	621.56	-			
2200			2200		LF	TEMPORARY TRAFFIC BARRIER	621.90	4			
240			240		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST			
320			320		HR	FLAGGERS	630.15	EST			
		1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-			
		3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-			
1			1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
1			1		LS	TRAFFIC CONTROL	641.10	-			
2			2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
1			1		EACH	PORTABLE ARROW BOARD	641.16	-			
4600			4600		LF	TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE	646.621	EST			
100			100		EACH	LINE STRIPING TARGETS	646.76	EST			
450			450		SF	PAVEMENT MARKING MASK	646.86	EST			
	120		120		SY	GEOTEXTILE FOR SILT FENCE	649.51	2			
	150		150		LB	SEED	651.15	15			
	1150		1150		LB	FERTILIZER	651.18	23			
	5		5		TON	AGRICULTURAL LIMESTONE	651.20	.49			
350			350		CY	TOPSOIL	651.35	11			
	1		1		LS	EPSC PLAN	652.10	-			
	20		20		HR	MONITORING EPSC PLAN	652.20	EST			
	1		1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-			
	6100		6100 ⚠		SY	TEMPORARY EROSION MATTING	653.20	91			
	30		30		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	4			
	15		15		CY	VEHICLE TRACKING PAD	653.35	EST			
	3		3		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-			
	2310		2310		LF	PROJECT DEMARCATION FENCE	653.55	8			
1			1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			

⚠ REVISED ITEM QUANTITY - 7/8/10

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158frm.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
QUANTITY SHEET 1

PLOT DATE: 08-JUL-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 8 OF 78

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
ROADWAY	EROSION CONTROL	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
700			700		CY	SPECIAL PROVISION (REMOVAL OF LEDGE SALVAGE MATERIAL)	900.608	75			
60			60		CY	SPECIAL PROVISION (SHOTCRETE)	900.608	6			
500			500		CY	SPECIAL PROVISION (TRIM BLASTING, TRUCK MEASUREMENT)	900.608	9			
200			200		HR	SPECIAL PROVISION (HAND SCALING)	900.630	60			
150			150		HR	SPECIAL PROVISION (MACHINE SCALING)	900.630	6			
1020			1020		LF	SPECIAL PROVISION (ROCK DOWELING)	900.640	15			
100			100		LF	SPECIAL PROVISION (ROCK NAIL FOR SHOTCRETE)	900.640	20			
1			1		LS	SPECIAL PROVISION (ROCK DOWEL TESTING)	900.645	-			

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158frm.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
QUANTITY SHEET 2

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 9 OF 78

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE DETAIL SHEET

STATION	STATION	POS.	ASKEW	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW	ES	CB		DEPTH DI	CONC CLASS B	REINF STEEL	DI GRATE	CHAN ELEV	CRM	TRENCH EXCAVATION		COMM EXC	UNC CHAN EXC	STRUCT EXCAV	GRAN BKFLL STRUCT	GRAN BORR	EROS MATT	STONE FILL		MARKER POSTS				REMARKS
			NO. DEG	INLET	OUTLET	IN	OUT	SPAN IN	RISE IN	L FT	D IN	L FT	PCCSP TH	CAAP TH	RCP CL	CSP TH	CPEP SL	PCCSP P/I TH	NO. DEG	EA	EA		FT	CY	LBS	TYPE	EA	CY	EARTH CY	ROCK CY	CY	CY	CY	CY	CY	SY	CY	TYPE	LT EA	RT EA			
1848+50		CL		DI	DI																																					
1848+50		RT		MES	DI						24	6					X			1									5	5				3						1			NEW PIPE, CHANGE ELEVATION, NEW COVER
1848+52	1854+00	RT		DI	DI																				1	1																EXISTING PIPE, INSTALL COVER ON EXISTING DI
1854+02		CL		DI	DI																																					EXISTING PIPE
1854+02		RT		MES	DI						24	4					X			1									5	5				3						1			NEW PIPE, CHANGE ELEVATION, NEW COVER
1854+04	1859+48	RT		DI	DI																				1	1																EXISTING PIPE, INSTALL COVER ON EXISTING DI
1859+22		CL		DI	DI																																					EXISTING PIPE
1859+50		RT		MES	DI						24	8					X			1									8	5				4						1			NEW PIPE, CHANGE ELEVATION, NEW COVER
1859+52	1860+00	RT		DI	HW																				1	1																INSTALL COVER ON EXISTING DI
SUMMARY																	18			3					3	3		18	15				10						3			MES: METAL END SECTION

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158frm.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
DRAINAGE DETAIL SHEET

PLOT DATE: 01-JUN-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 10 OF 78

STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK VOLUME	ROCK EXCAVATION AREA	ROCK EXCAVATION VOLUME	EMBANKMENT AREA	EMBANKMENT VOLUME	AREA	VOLUME
	FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.
1838+00		0							
	50		47						
1838+50		51							
	50		101						
1839+00		58							
	50		118						
1839+50		69							
	50		143						
1840+00		85							
	50		173					CUT	1576
1840+50		102						ROCK	0
	50		250					R.FAC	.495
1841+00		169						FILL	0
	50		284					F.FAC	1.15
1841+50		138						EX. C	1576
	50		212						
1842+00		91							
	50		138						
1842+50		58							
	50		112						
1843+00		63							
1843+00		63							
	50		112						
1843+50		58							
	50		128						
1844+00		80							
	50		195						
1844+50		130							
	50		223						
1845+00		111							
	50		178					CUT	1672
1845+50		81						ROCK	0
	50		160					R.FAC	.495
1846+00		92						FILL	0
	50		174					F.FAC	1.15
1846+50		96						EX. C	1672
	50		179						
1847+00		97							
	50		169						
1847+50		85							
	50		154						
1848+00		81							
1848+00		81							
	50		174						
1848+50		107							
	50		181						
1849+00		88							
	50		145						
1849+50		69							
	50		166						
1850+00		110							
	50		203					CUT	1908
1850+50		108						ROCK	0
	50		225					R.FAC	.495
1851+00		135						FILL	0
	50		232					F.FAC	1.15
1851+50		116						EX. C	1908
	50		208						
1852+00		109							
	50		173						
1852+50		78							
	50		201						
1853+00		140							
1853+00		140							
	50		324						
1853+50		211							
	50		277						
1854+00		89							
	50		295						
1854+50		231							
	50		455						
1855+00		261						CUT	2704
	50		415					ROCK	0
1855+50		187						R.FAC	.495
	50		288					FILL	0

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK VOLUME	ROCK EXCAVATION AREA	ROCK EXCAVATION VOLUME	EMBANKMENT AREA	EMBANKMENT VOLUME	AREA	VOLUME
	FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.
1857+50		106							
	50		195						
1858+00		105							
	50		194						
1858+50		104						CUT	887
	50		193					ROCK	0
1859+00		104						R.FAC	.495
	50		201					FILL	0
1859+50		113						F.FAC	1.15
	50		104					EX. C	887
1860+00		0							

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK VOLUME	ROCK EXCAVATION AREA	ROCK EXCAVATION VOLUME	EMBANKMENT AREA	EMBANKMENT VOLUME	AREA	VOLUME
	FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.

SUMMARY AND BALANCES

STATION TO STATION		TOT EXC. EARTH & ROCK C.Y.	ROCK EXCAV C.Y.	EMBANK C.Y.	EXCESSES CUT	EXCESSES FILL	ACUMULATIVE EXCESSES CUT	ACUMULATIVE EXCESSES FILL
1838+00	1843+00	1576	0	0	1576		1576	
1843+00	1848+00	1672	0	0	1672		3248	
1848+00	1853+00	1908	0	0	1908		5156	
1853+00	1857+50	2704	0	0	2704		7860	
1857+50	1860+00	887	0	0	887		8747	

REMARKS

EARTH AND ROCK EXCAVATION	8747
SOLID ROCK EXCAVATION	50
EARTH EXCAVATION	8747
PLANIMETERED FILL	0
LESS FACTORED SOLID ROCK	0
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	0
NET PLANIMETERED FILL	0
FACTOR	0
PLANIMETERED FILL INCLUDING FACTOR	0
MATERIALS AVAILABLE FOR FILLS	0
EARTH EXCAVATION	8747
CHANNEL EXCAVATION	0
UNDERDRAIN EXCAVATION	0
STRUCTURE EXCAVATION	0
TOTAL MATERIAL AVAILABLE FOR FILL	8747
TOTAL FILL INCLUDING FACTOR	0
TOTAL MATERIAL FOR FILL	0
BORROW	0
EXCESS EXCAVATION	0

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: D7a158/Design/d07a158frm.dgn PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN CHECKED BY: S. MENARD
EARTHWORKS SHEET SHEET 11 OF 78

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006 AND ITS LATEST REVISIONS.

2. EXISTING DIMENSIONS SHOWN IN THE PLANS WERE DEVELOPED FROM LIMITED FIELD SURVEY AND ORIGINAL DESIGN PLANS AND ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CHECKING ALL DIMENSIONS APPLICABLE TO THIS WORK.

3. IN ACCORDANCE WITH SUBSECTION 107.12 THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING PAVEMENT, PAVEMENT MARKINGS, GUARDRAIL, PIPES, DROP INLETS, CONCRETE SIGN FOUNDATIONS AND HEADWALLS. THE CONTRACTOR, AT NO ADDITIONAL COMPENSATION, SHALL REPAIR ALL EXISTING PAVEMENT, PAVEMENT MARKINGS, GUARDRAIL, PIPES, DROP INLETS, CONCRETE SIGN FOUNDATIONS AND HEADWALLS DAMAGED DURING CONSTRUCTION ACTIVITIES TO THE SATISFACTION OF THE ENGINEER.

4. THE CONTRACTOR SHALL REMOVE, STOCKPILE, AND REINSTALL SIGNS, MILE MARKER POSTS, AND DELINEATORS WHERE REQUIRED WORK MAY CAUSE DAMAGE TO THEM. THIS WORK SHALL BE INCIDENTAL TO ITEM 641.10 "TRAFFIC CONTROL".

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBLITY TO VERIFY LOCATIONS OF BURIED CABLE THROUGH DIG SAFE PRIOR TO THE START OF CONSTRUCTION.

LEDGE REMOVAL NOTES

1. PRIOR TO SUBMITTING A BID IT WILL BE REQUIRED THAT ALL BIDDING CONTRACTORS ATTEND A PRE BID MEETING ON SITE, WITH VTRANS STAFF, TO FAMILIARIZE THEMSELVES WITH THE CURRENT SITE CONDITIONS AND ACCESSIBILITY PRIOR TO PREPARATION OF A BID. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

2. FOR ALL LEDGE CUT SLOPES THROUGHOUT THE PROJECT AREA (MM. 34.70 TO MM. 35.12) THE LIMITS OF CLEARING SHALL START AT THE DITCH LINE, EXTEND UP THE FACE OF THE LEDGE AND CONTINUE FOR A DISTANCE UP TO 20 FEET BEYOND THE FINAL CREST OF THE LEDGE (NOT TO EXTEND PAST EXISTING STATE ROW) AS DIRECTED BY THE VTRANS GEOLOGIST OR ENGINEER.

3. THE LIMIT OF LEDGE REMOVAL IS SHOWN IN THESE PLANS. THE CONTRACTOR SHALL PERFORM ANY ADDITIONAL WORK AT THE UNIT PRICES PROVIDED IN THE CONTRACT. LEDGE REMOVAL SHALL BE COMPLETED THROUGH MEANS OF TRIM BLASTING, HAND SCALING AND MACHINE SCALING.

   A. ALL LEDGE REMOVAL SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS BY PERSONNEL EXPERIENCED WITH THE REMOVAL METHODS BEING USED.

   B. LEDGE REMOVAL USING METHODS OF TRIM BLASTING AND HAND SCALING SHALL BE PAID FOR UNDER CONTRACT ITEMS "900.608 SPECIAL PROVISION (TRIM BLASTING, TRUCK MEASUREMENT)" AND "900.630 - SPECIAL PROVISION (HAND SCALING)".

4. PERIODS OF BLASTING OPERATIONS SHALL BE LIMITED TO MONDAY THROUGH SATURDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.

5. ALL "REMOVAL OF LEDGE SALVAGE MATERIAL" AND "COMMON EXCAVATION" SHALL BE SALVAGED TO THE STATE OF VERMONT. THE FIRST 750 TONS OF "REMOVAL OF LEDGE SALVAGE MATERIAL" AND/OR "COMMON EXCAVATION" SHALL BE DELIVERED TO THE VERMONT AGENCY OF TRANSPORTATION DISTRICT 2 SPRINGFIELD FACILITY. ALL MATERIAL OVER 750 TONS SHALL BE DELIVERED TO APPROXIMATELY MM 34.60 ON THE SOUTHBOUND SHOULDER OF INTERSTATE 91. COORDINATION SHALL BE MADE TWO WEEKS IN ADVANCE OF THE INITIAL DELIVERY, AND AS NEEDED, TO IDENTIFY THE LOCATION AND COORDINATE TRAFFIC CONTROL. TRAFFIC CONTROL SHALL BE THE RESPONSIBLITY OF DISTRICT 2 FOR THE WASTE AREA ONLY. COORDINATION SHALL BE MADE THROUGH JOESEPH RUZZO, DISTRICT 2 PROJECT MANAGER [TEL.: (802)251-2002].

6. THE CONTRACTOR SHALL TAKE CARE DURING THE LEDGE REMOVAL NOT TO DAMAGE OR DISTURB EXISTING UTILITIES WITHIN THE PROJECT AREA.

CLEARING NOTES:

1. CLEARING SHALL CONSIST OF REMOVAL OF ALL TREES AND SHRUBS FROM THE EDGE OF PAVEMENT UP THE FACE OF THE LEDGE CUT AND 20 FEET PAST THE FINAL CREST OF THE LEDGE. THE FINAL CREST OF THE LEDGE IS THE CREST LINE AFTER ALL LEDGE REMOVAL WHERE THE LEDGE CHANGES FROM PRIMARILY VERTICAL TO PRIMARILY HORIZONTAL. THE FINAL CREST OF THE LEDGE SHALL BE DETERMINED BY THE RESIDENT ENGINEER AND THE VTRANS GEOLOGIST.

2. ALL VEGETATION SHALL BE CLEARED AND DISPOSED OF IN ACCORDANCE WITH SECTION 201. PAYMENT SHALL BE MADE UNDER CONTRACT ITEM 201.11 "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS".

3. INDIVIDUAL TREES THAT ARE DEEMED TO BE AT RISK OF FALLING BY THE RESIDENT ENGINEER, OUTSIDE OF THE CLEARING AREA IDENTIFIED ON THE PLANS, SHALL BE REMOVED. THIS WORK SHALL BE INCIDENTAL TO ITEM 201.11 "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS".

4. VEGETATION TO BE REMOVED ON THE FACE OF THE LEDGE CUT SHALL BE INCIDENTAL TO ITEM 201.11 "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS".

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A NEAT TREE LINE ALONG THE AREA TO BE CLEARED TO THE SATISFACTION OF THE ENGINEER.

PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)
FILE NAME: 07a158/Design/d07a158frm.dgn	PLOT DATE: 10-JUN-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
GENERAL NOTES	SHEET 12 OF 78

GPS CONTROL POINTS

HVCTRL #1

I 91 EXIT 6 AZ MK

NORTH = 249990.88
EAST = 1650387.59
ELEV. = 383.95

General location, Rockingham, VT. To reach from the I-91 northbound bridge over VT route 103 at exit 6, go north along I-91 for 0.5 mi to the north bound mile marker 35.60, at U-turn, and the site of the mark on the left of the median just south of the U-turn. The mark is set flush with the ground surface in the top of a 12" diameter concrete monument. It is 8.5' east of and about 0.3' lower than the east edge of pavement of the I-91 south bound lane, 36.4' west of and about 1.3' lower than the west edge of pavement of the north bound lane. 30.2' south of the centerline of the U-turn, 21.3' northwest of the center of a 24" square metal drain grate, and 1' north of a fiberglass witness post.

HVCTRL #2

I 91 EXIT 6

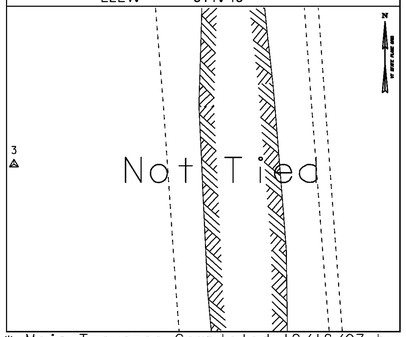
NORTH = 247458.07
EAST = 1650238.24
ELEV. = 504.26

General Location, Rockingham, VT. The mark is located in the median at the north end of the I-91 Bridges over VT route 103 at exit 6. It is between I-91 northbound mile marker's 35.20 and 35.25. The mark is set flush with ground surface in the top of a 12" diameter concrete monument. It is 20' east of and about level with the east edge of pavement of the southbound lane, 23.3' west of and about level with the west edge of pavement of the northbound lane, 21.7' northeast corner of the concrete curb of the southbound bridge, 29.5' northwest of the northwest corner of the concrete curb of the north bound bridge, 15' south of a steel beam guard rail, and 1' north of a fiberglass witness post.

TRAVERSE TIES

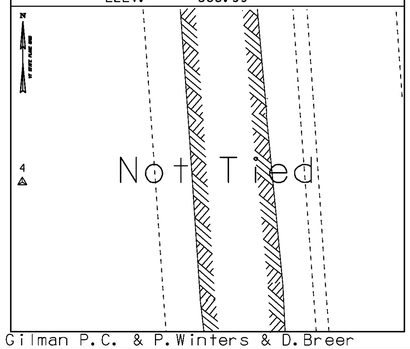
HVCTRL #3

NORTH = 245861.21
EAST = 1650291.29
ELEV. = 577.43



HVCTRL #4

NORTH = 245151.49
EAST = 1650347.99
ELEV. = 585.99



NORTH =
EAST =
ELEV. =

NORTH =
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ELEV. =

NORTH =
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ELEV. =

* Main Traverse Completed 12/18/07 by R. Gilman P.C. & P. Winters & D. Breer

ALIGNMENT TIES

NORTH =
EAST =
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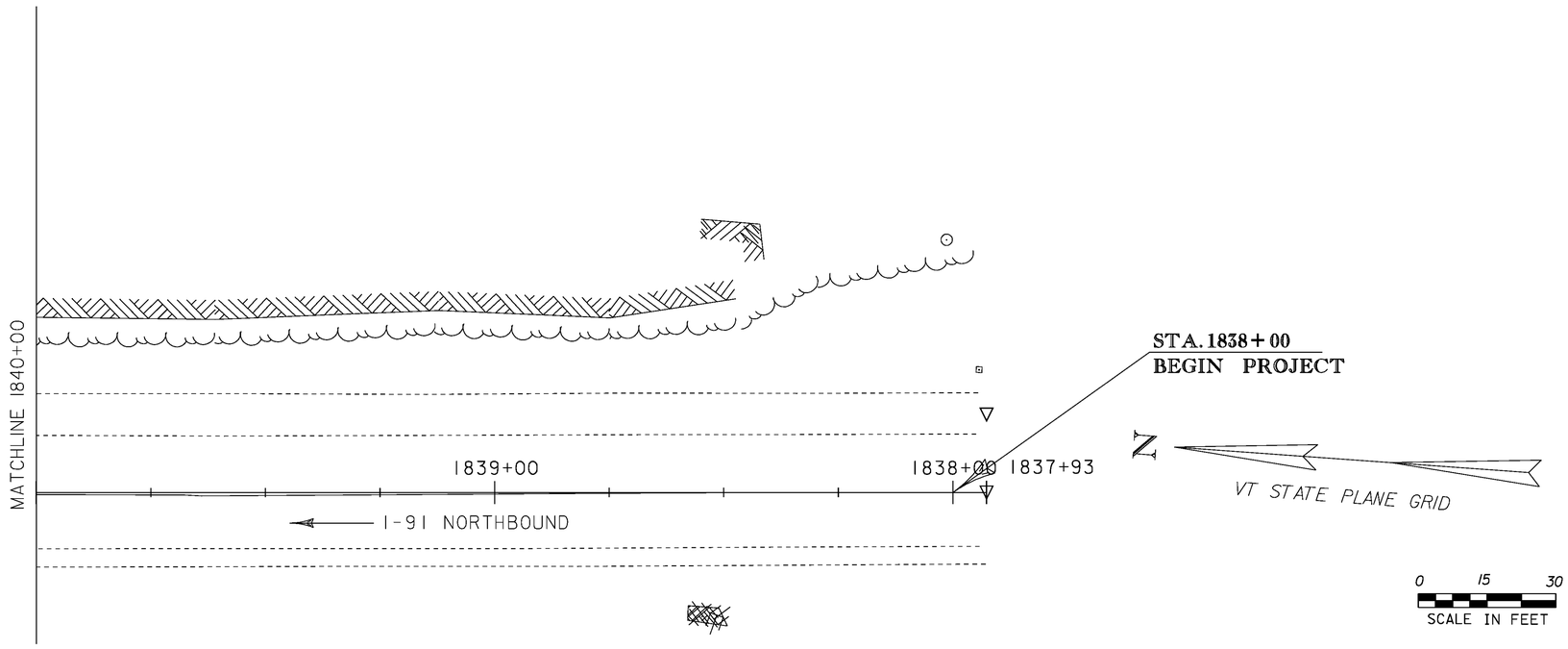
DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83(CORS96)
ADJUSTMENT Compass

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

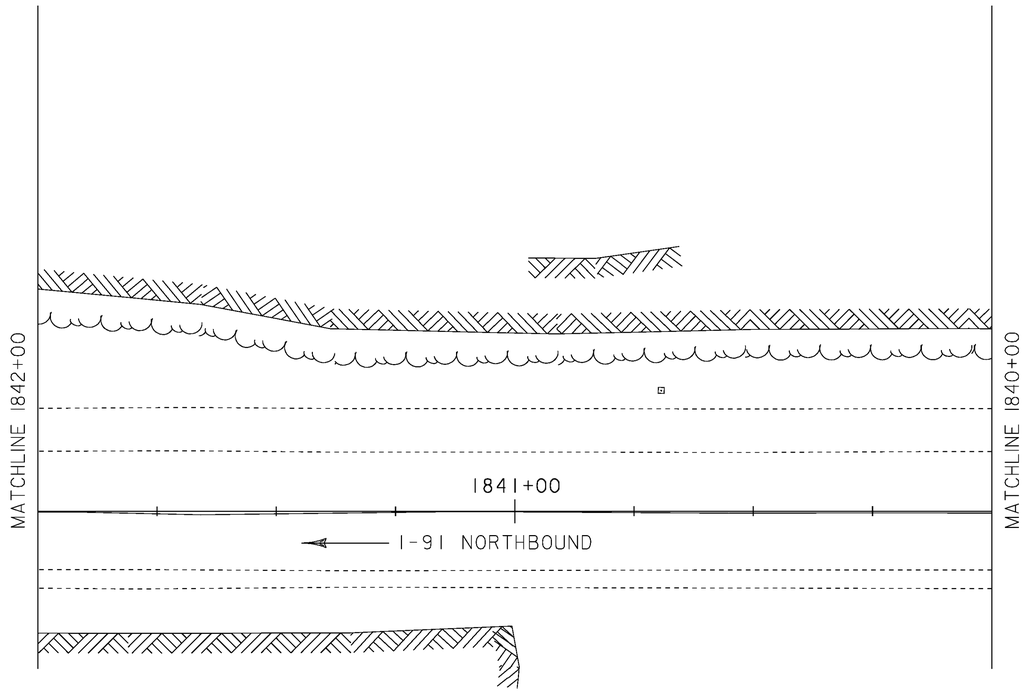
FILE NAME: 07A158/Design/d07A158tie.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: R. BULLOCK
TIE SHEET

PLOT DATE: 26-MAY-2010
DRAWN BY: R. BULLOCK
CHECKED BY: S. MENARD
SHEET 13 OF 78



PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)

FILE NAME: 07a158/Design/d07a158lo.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
LAYOUT SHEET 1	SHEET 14 OF 78



N

VT STATE PLANE GRID

0 15 30

SCALE IN FEET

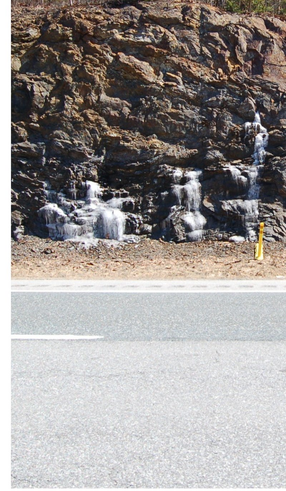
PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)
FILE NAME: 07a158/Design/d07a158lo.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
LAYOUT SHEET 2	SHEET 15 OF 78

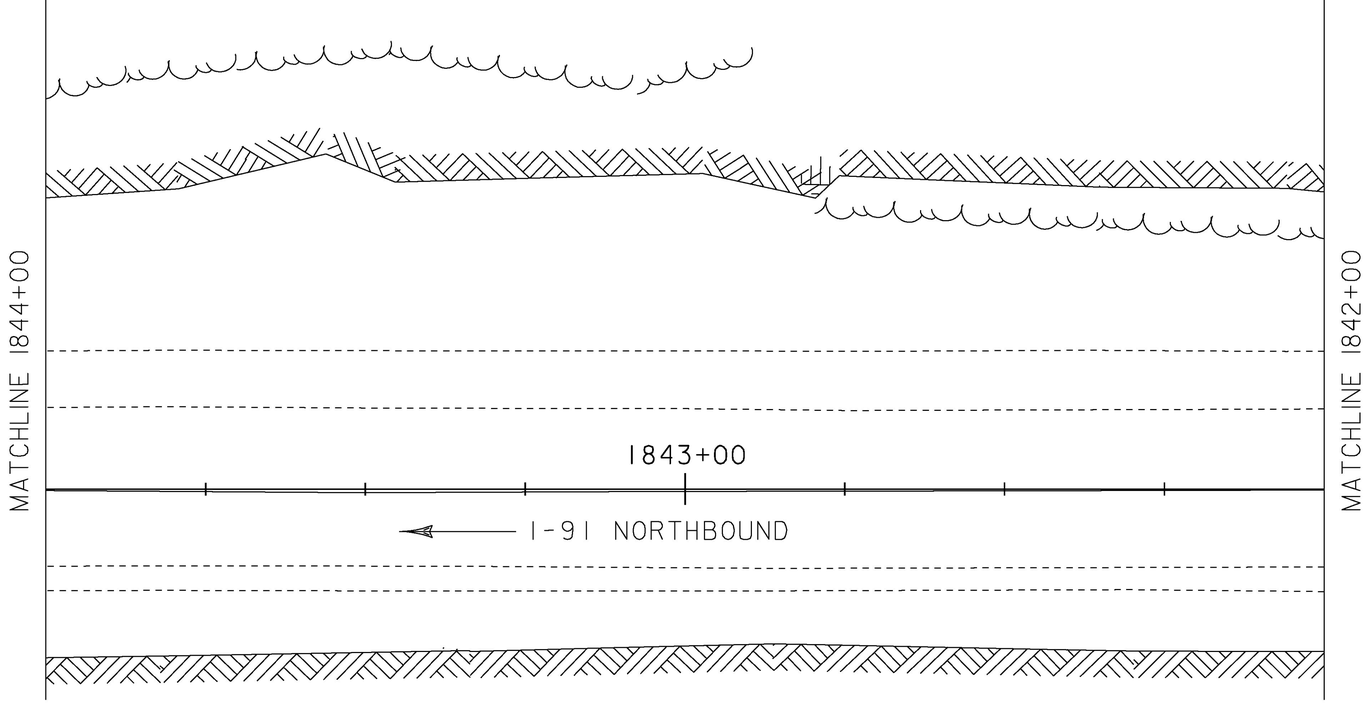


STA. 1844+00



STA. 1843+50





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VT STATE PLANE GRID

0 15 30

SCALE IN FEET

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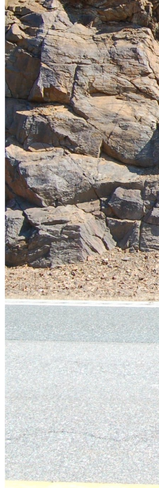
STA. 1846+00

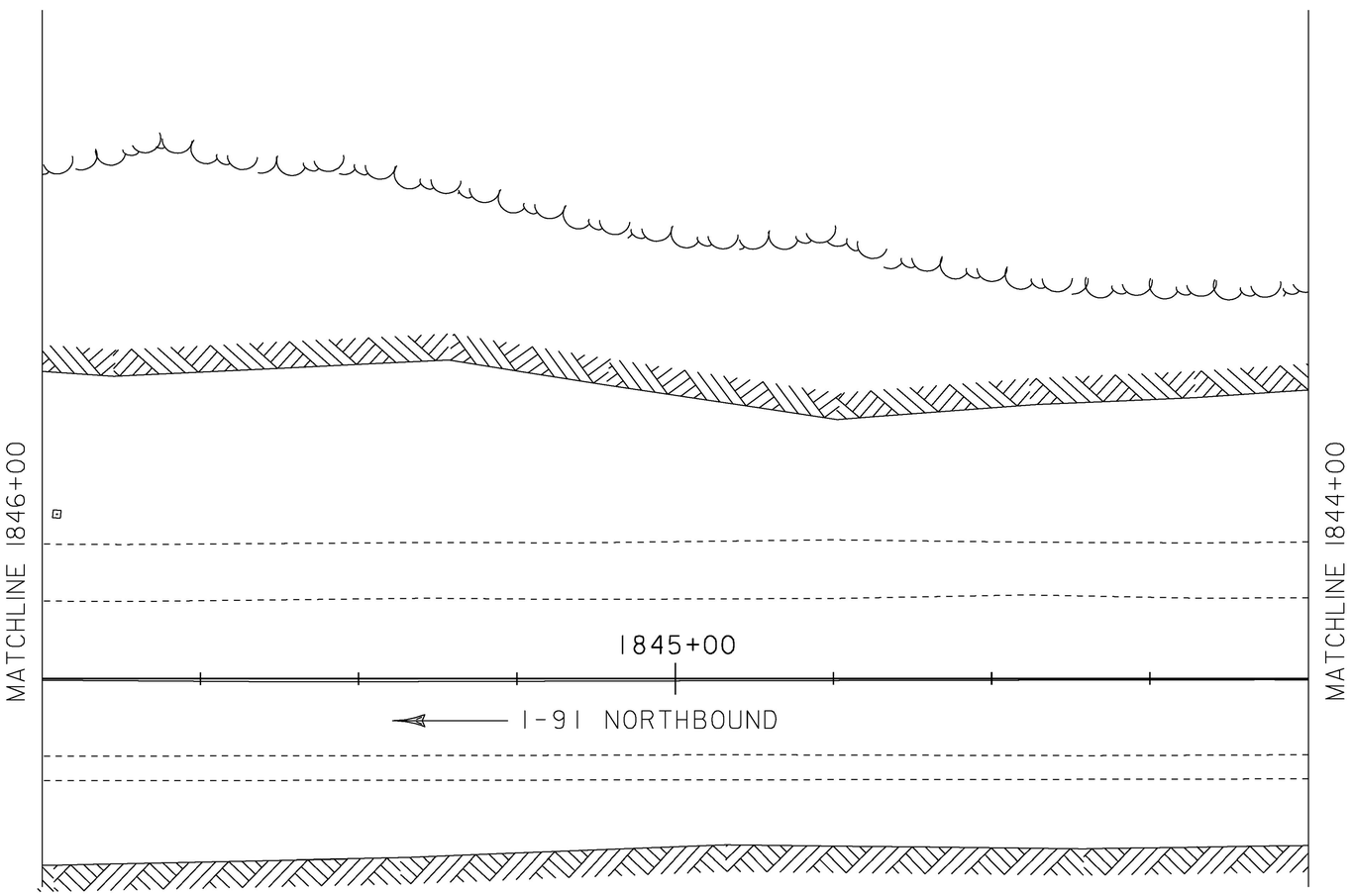


STA. 1845+50

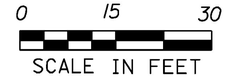


STA. 1845+00









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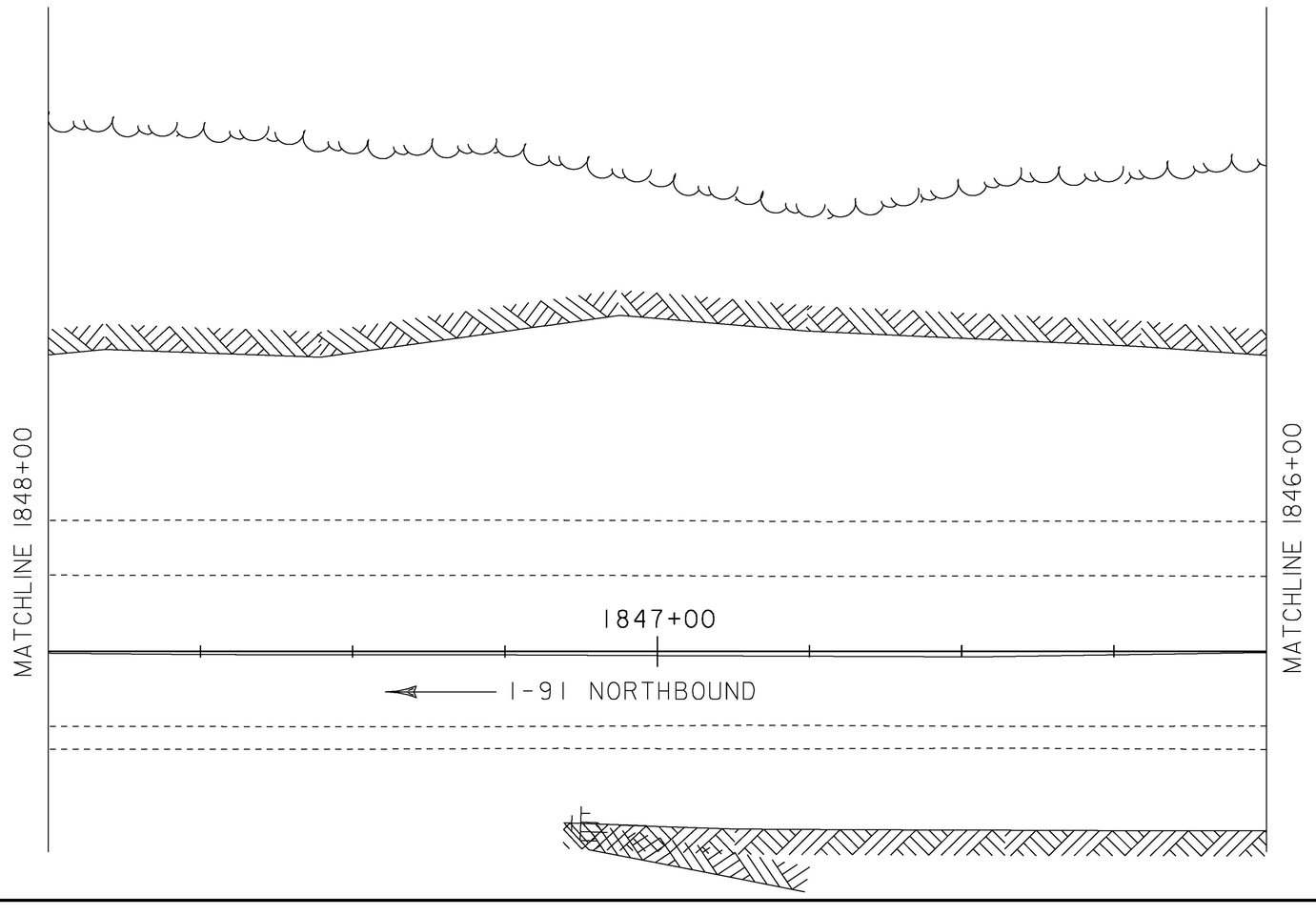
STA. 1848+00
MACHINE SCALING AT TOP ONLY



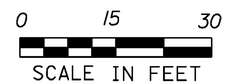
STA. 1847+50



STA. 1847+00
MACHINE SCALING AT TOP ONLY







900.64
STA. 1847
STA. 1848

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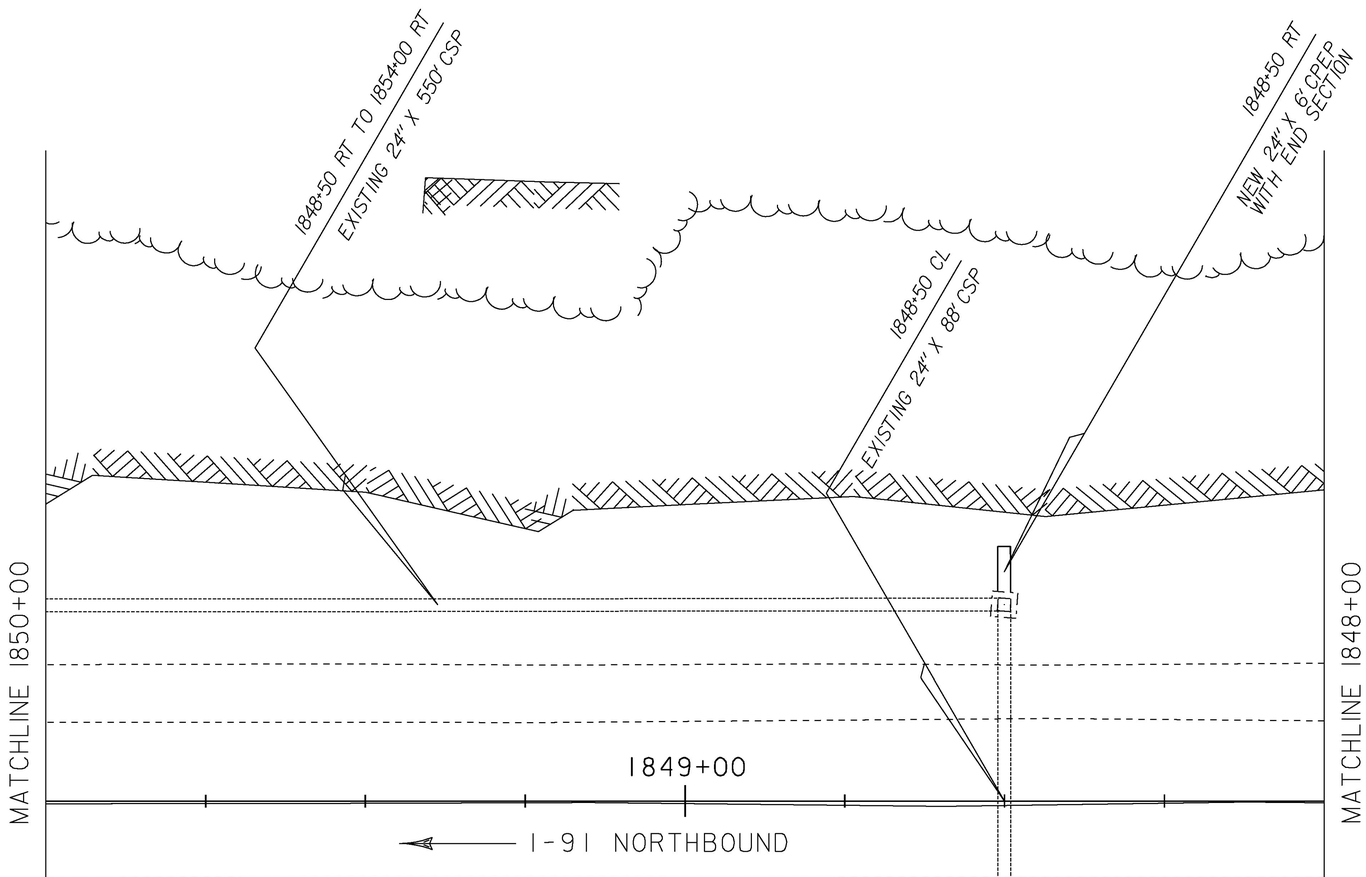
STA. 1850+00
MACHINE SCALING AT TOP ONLY



STA. 1849+50
MACHINE SCALING AT TOP ONLY



STA. 1849+00
MACHINE SCALING AT TOP ONLY



0 15 30
SCALE IN FEET

900.640
STA. 1848
STA. 1849
STA. 1850+

STAT
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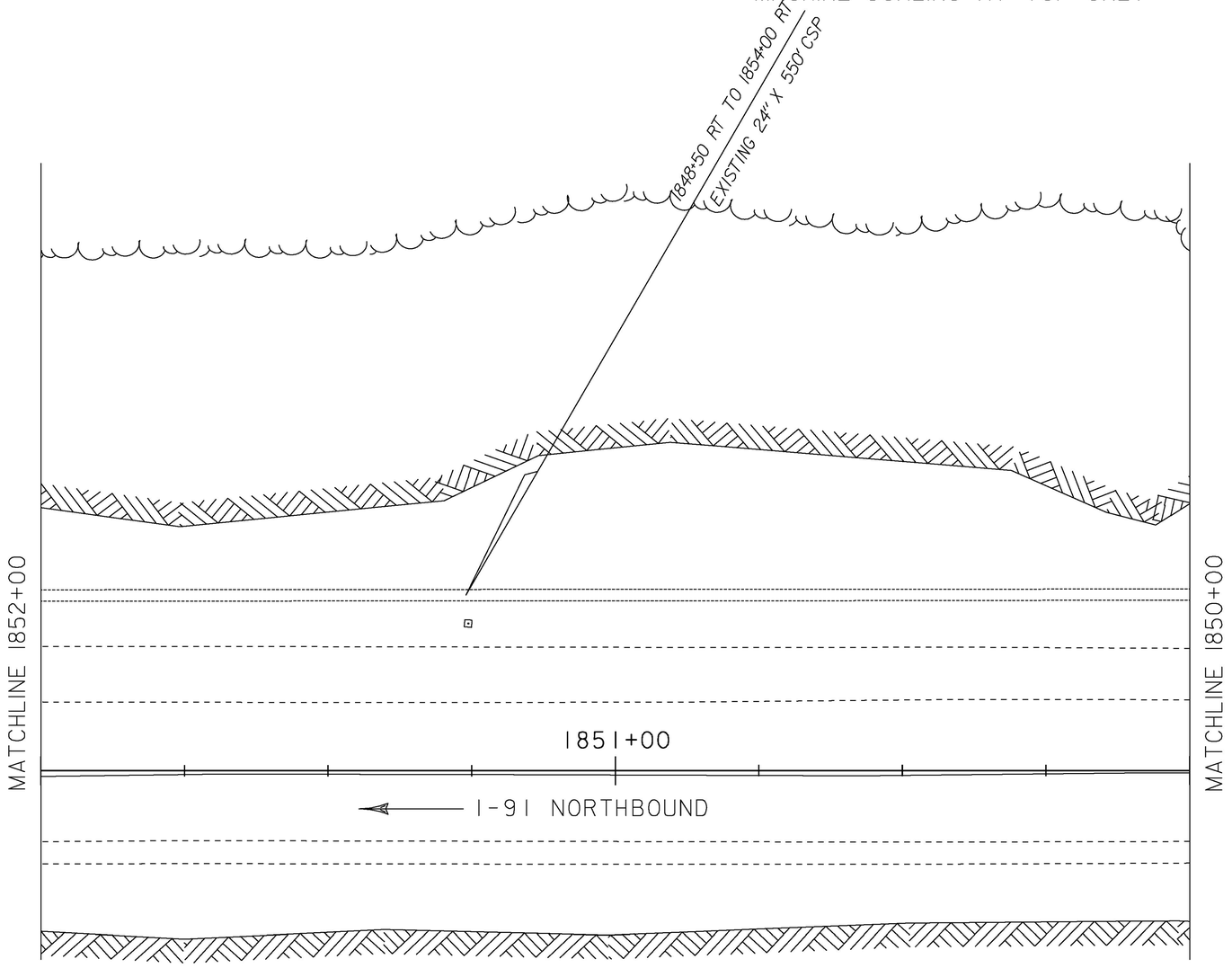
STA. 1852+00



STA. 1851+50
MACHINE SCALING AT TOP ONLY



STA. 1851+00
MACHINE SCALING AT TOP ONLY



900.640 -
STA. 1850+50
STA. 1851+50
STA. 1852+00

900.640 - SPECIA

900.608

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VT STATE PLANE GRID

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SCALE IN FEET

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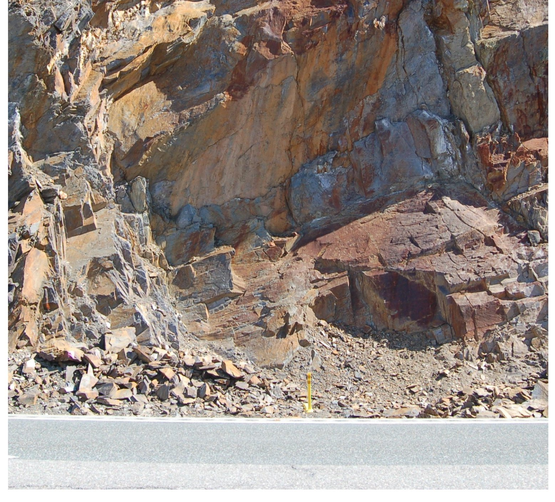
FILE
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STA. 1854+00
MACHINE SCALING AT TOP ONLY

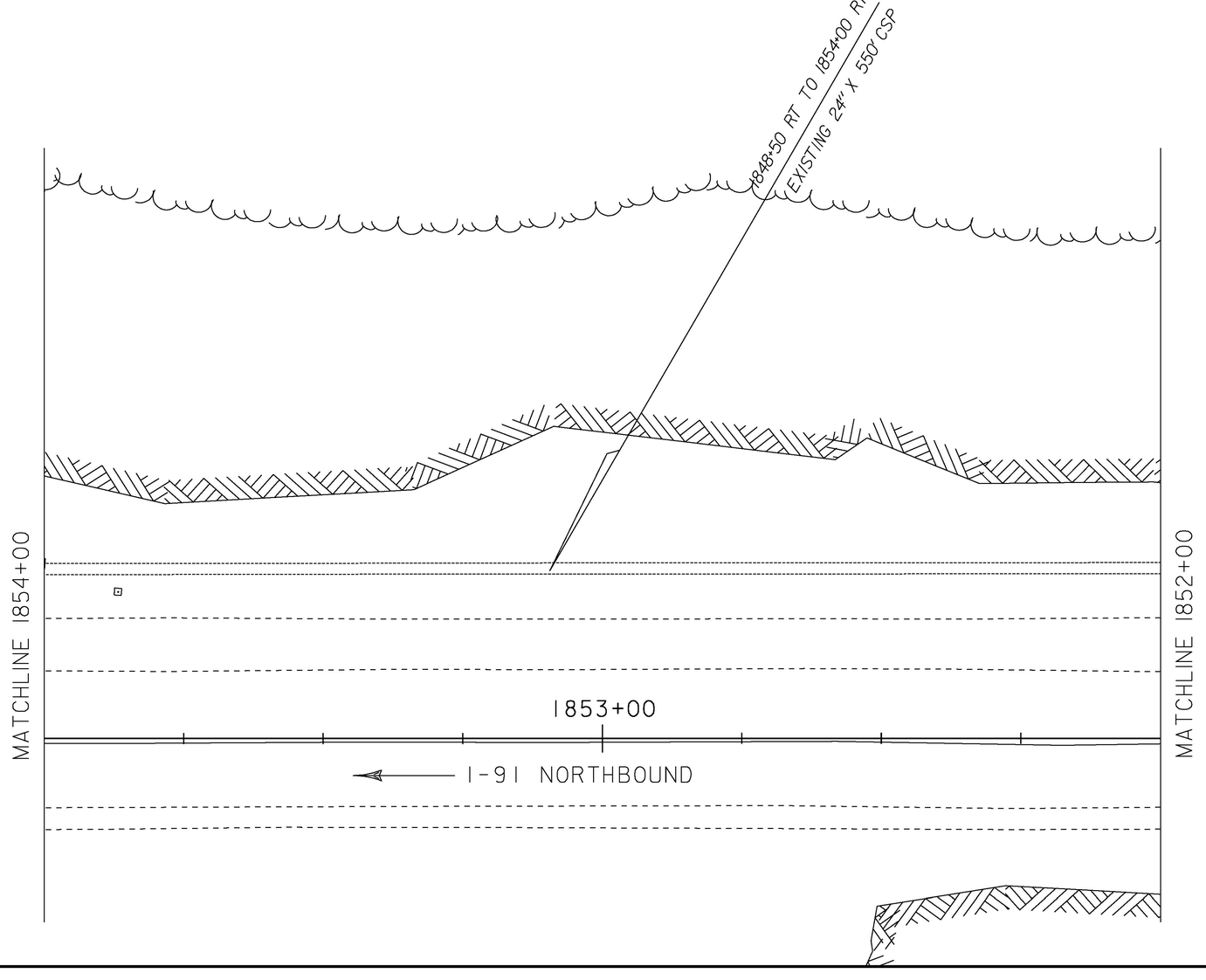


STA. 1853+50
MACHINE SCALING AT TOP ONLY



STA. 1853+00
MACHINE SCALING AT TOP ONLY





900.640
STA. 1852
STA. 1853
STA. 1853
STA. 1854



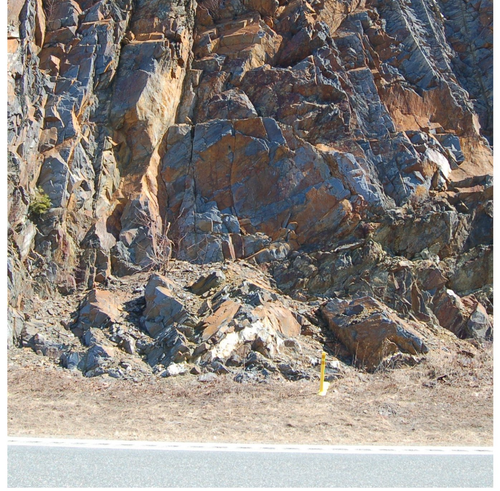
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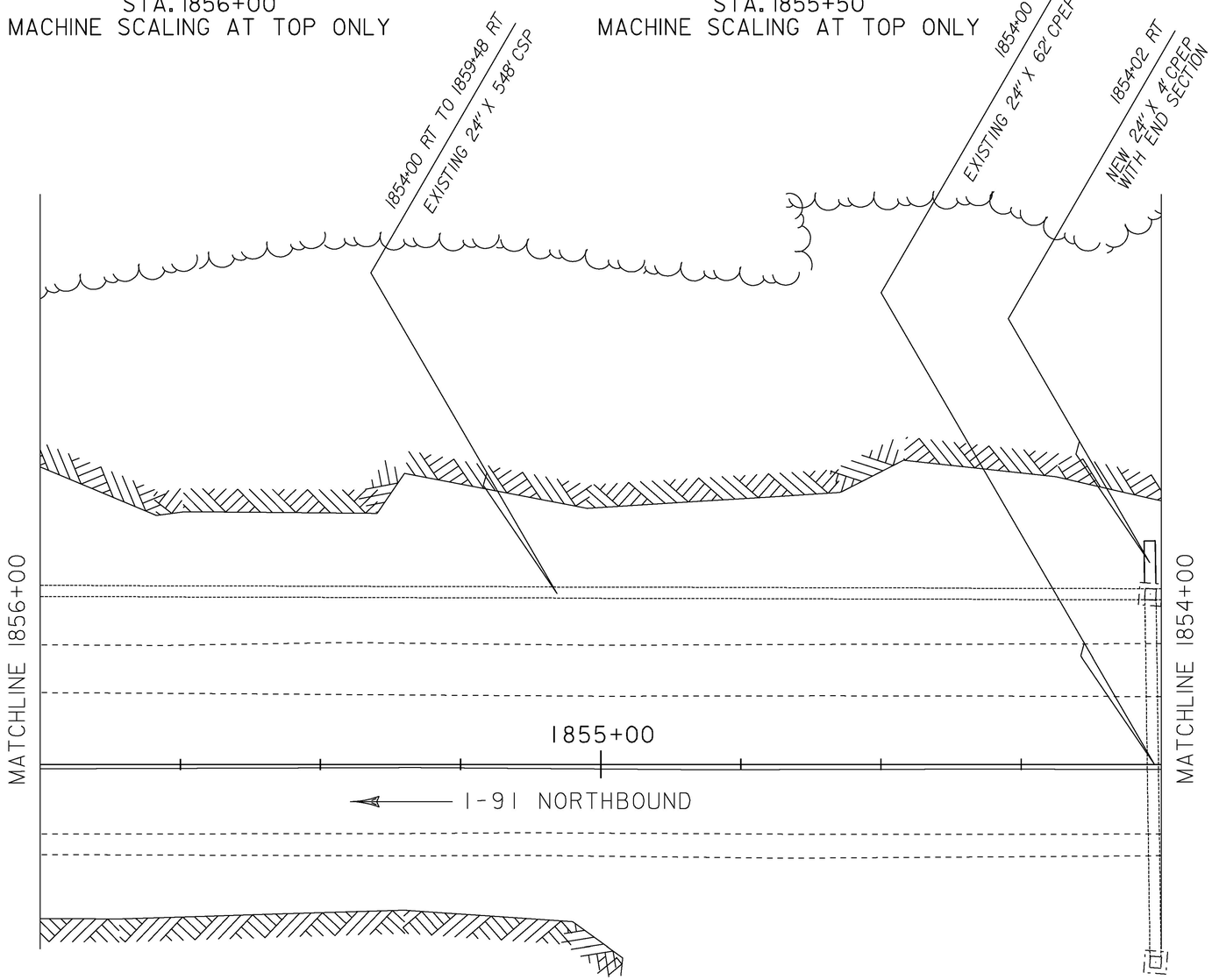
STA. 1856+00
MACHINE SCALING AT TOP ONLY



STA. 1855+50
MACHINE SCALING AT TOP ONLY



STA. 1855+00
MACHINE SCALING AT TOP ONLY





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SCALE IN FEET

900.640
STA. 1854
STA. 1855
STA. 1855
STA. 1856

STAT
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STA. 1858+00
MACHINE SCALING AT TOP ONLY



STA. 1857+50
MACHINE SCALING AT TOP ONLY

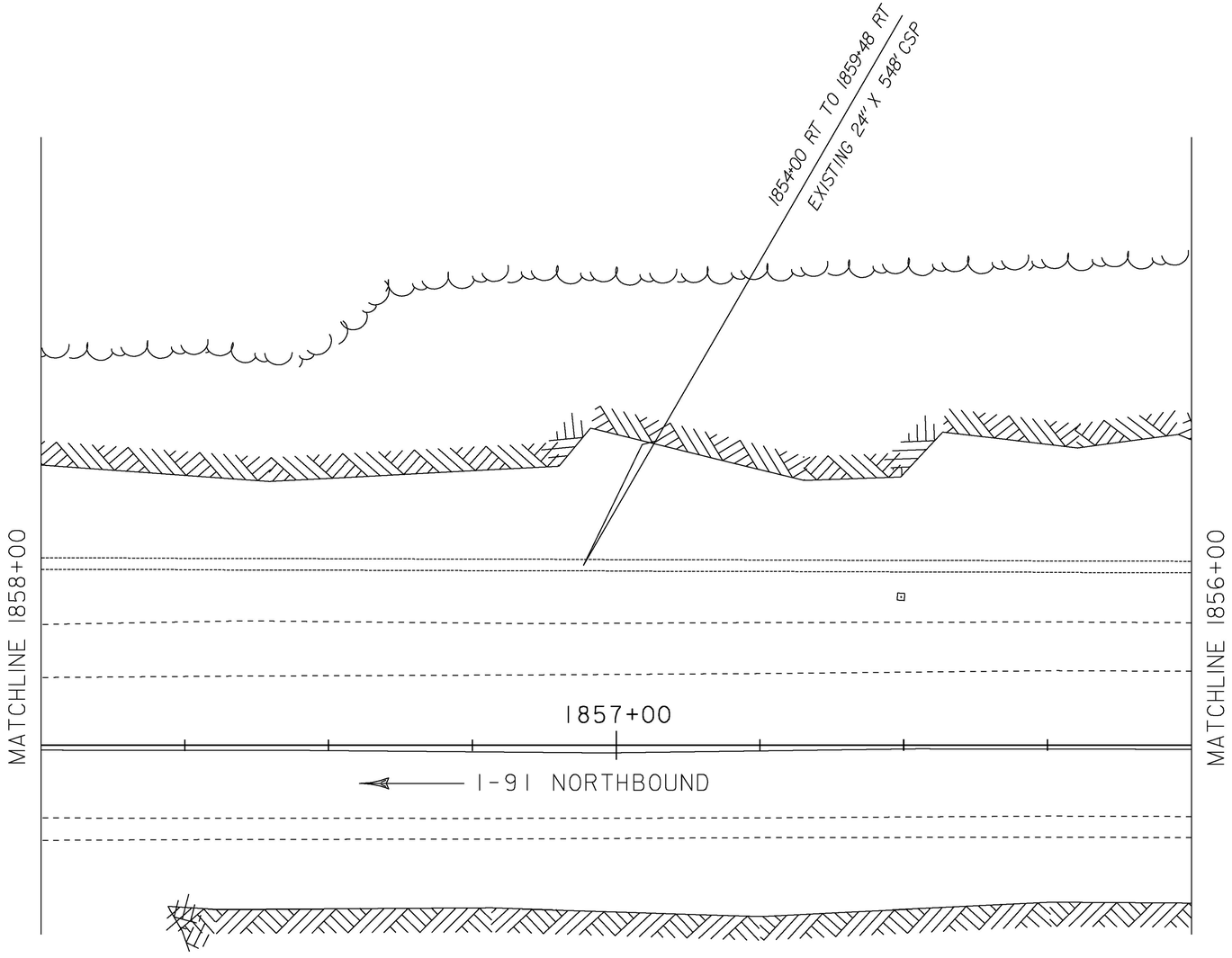


STA. 1857+00
MACHINE SCALING AT TOP ONLY



MAC

900.64
STA. 1856





0 15 30
SCALE IN FEET

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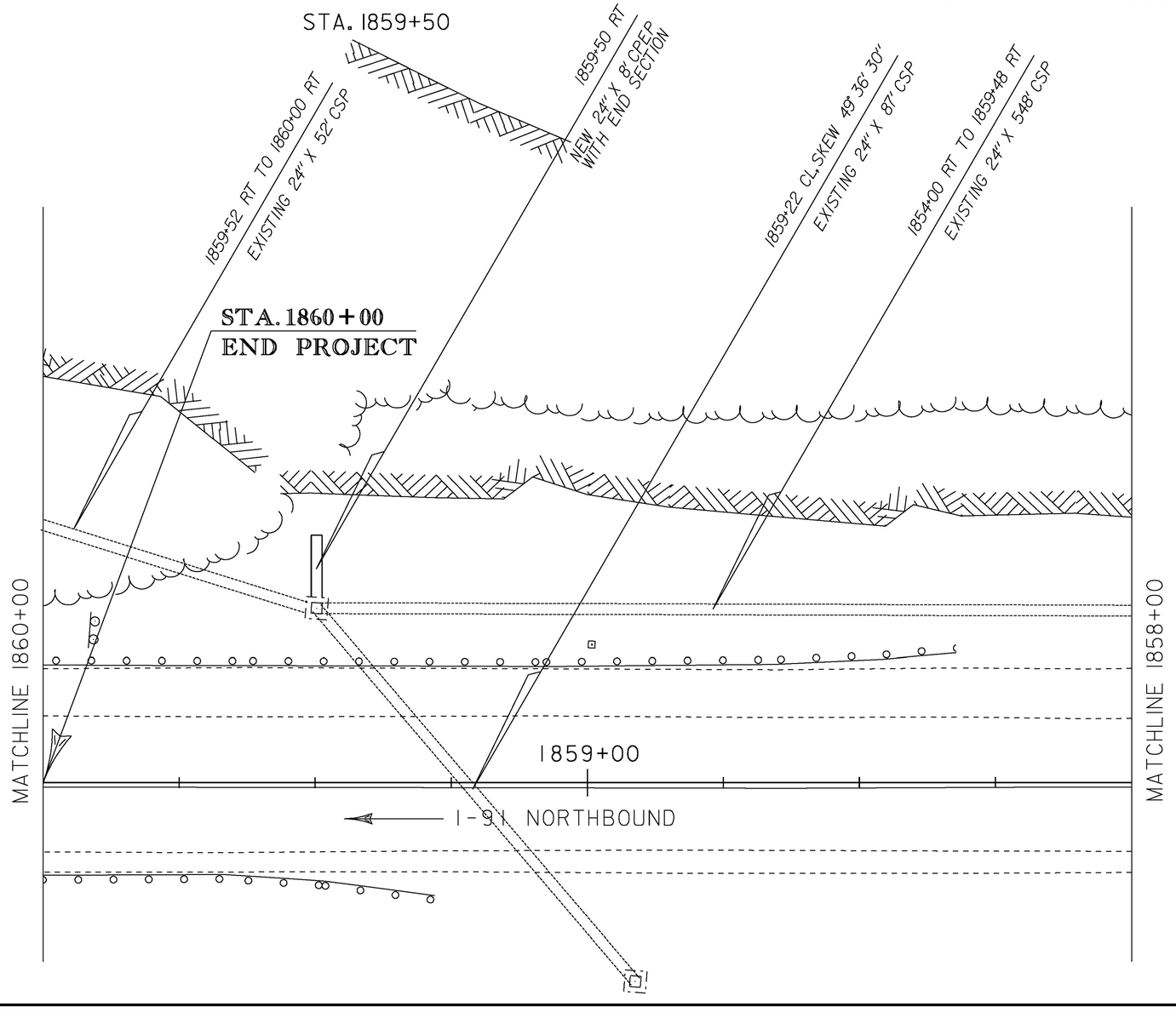
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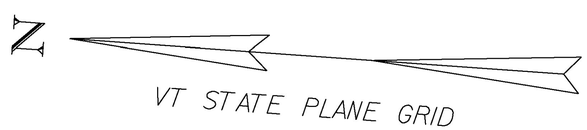


STA. 1859+50



STA. 1859+00





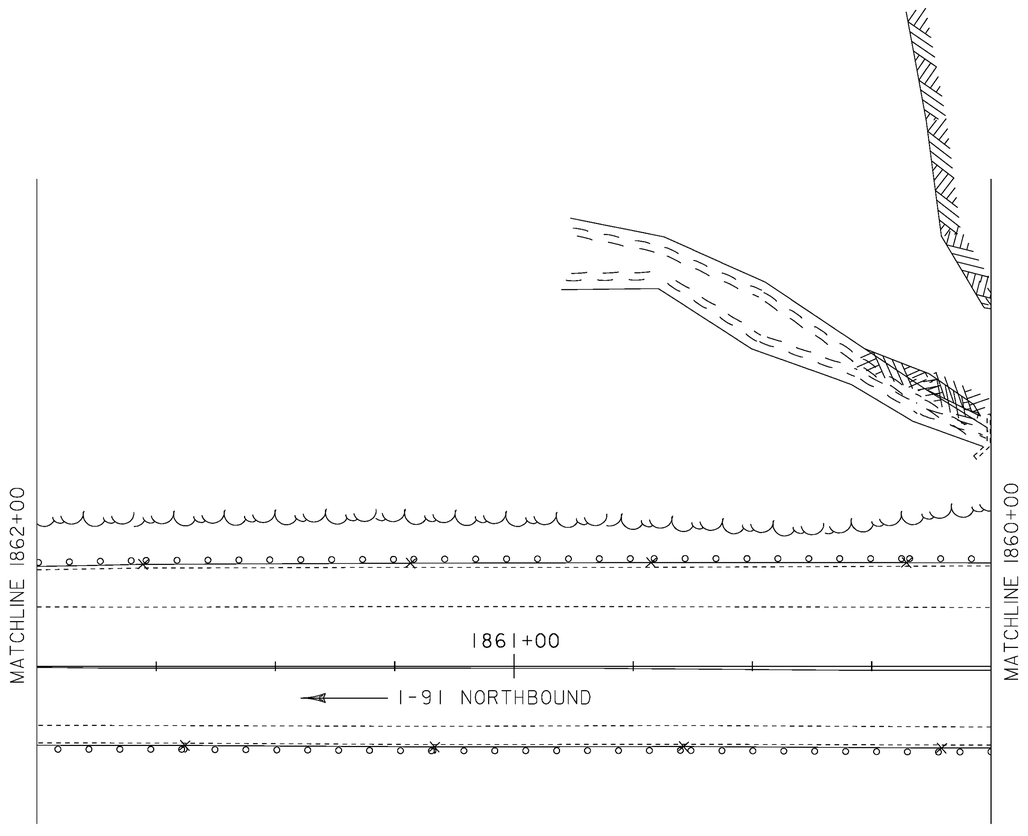
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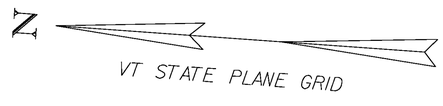
SCALE IN FEET

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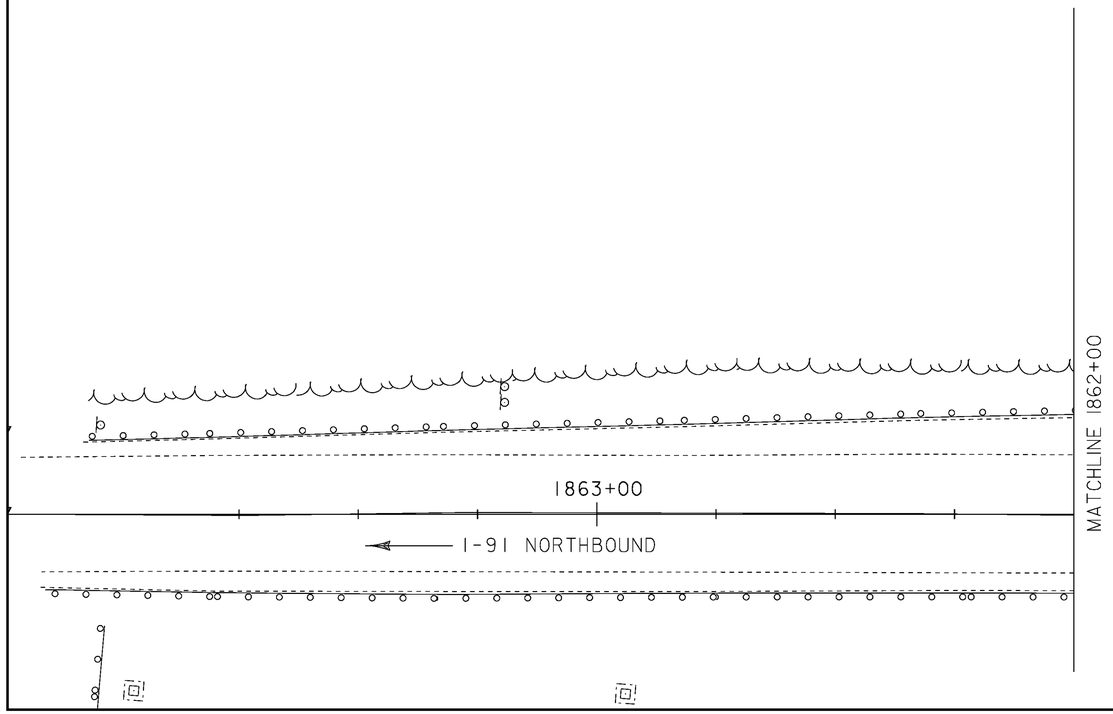


0 15 30
SCALE IN FEET

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158lo.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
LAYOUT SHEET 12

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 25 OF 78



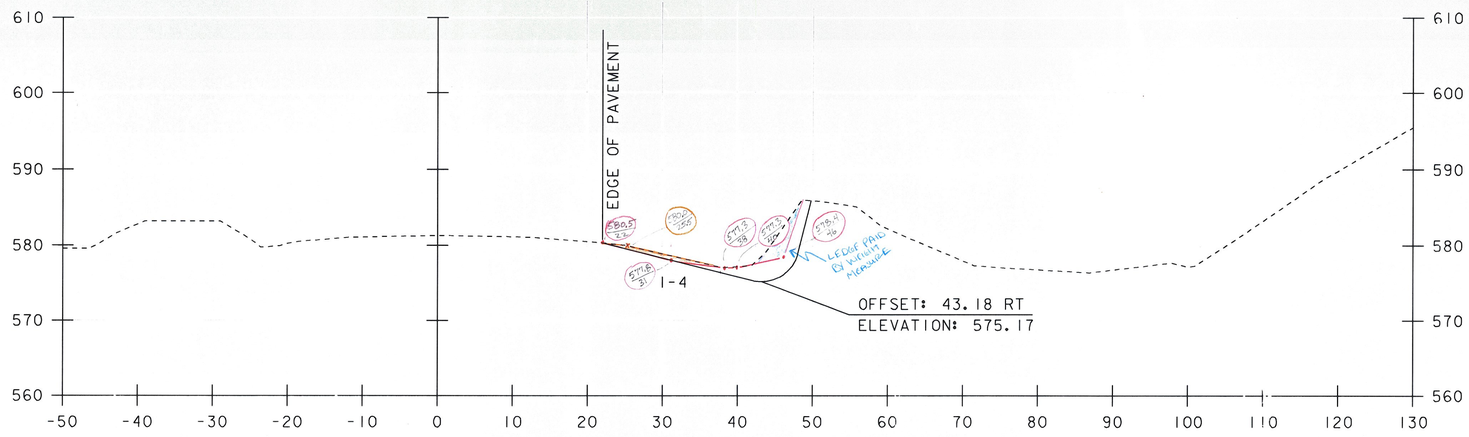
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VT STATE PLANE GRID

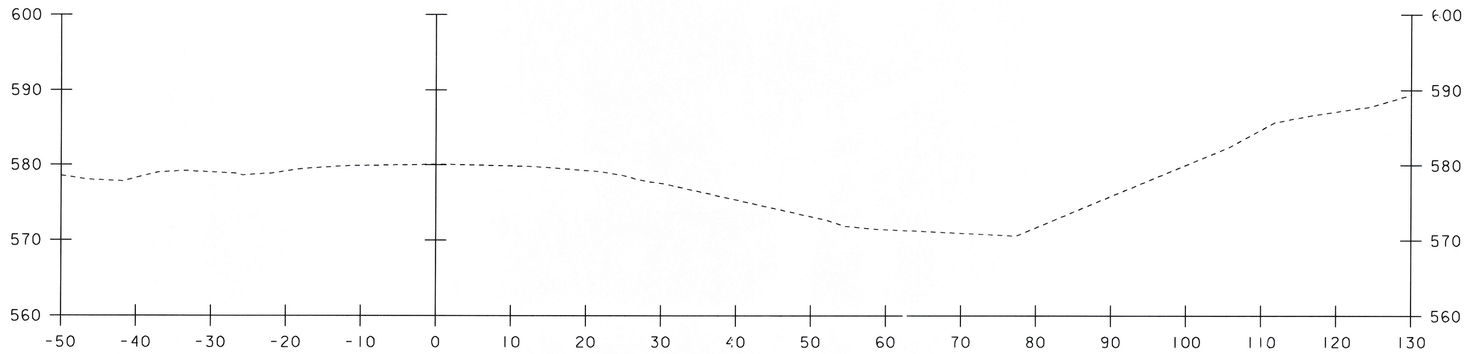
0 15 30

SCALE IN FEET

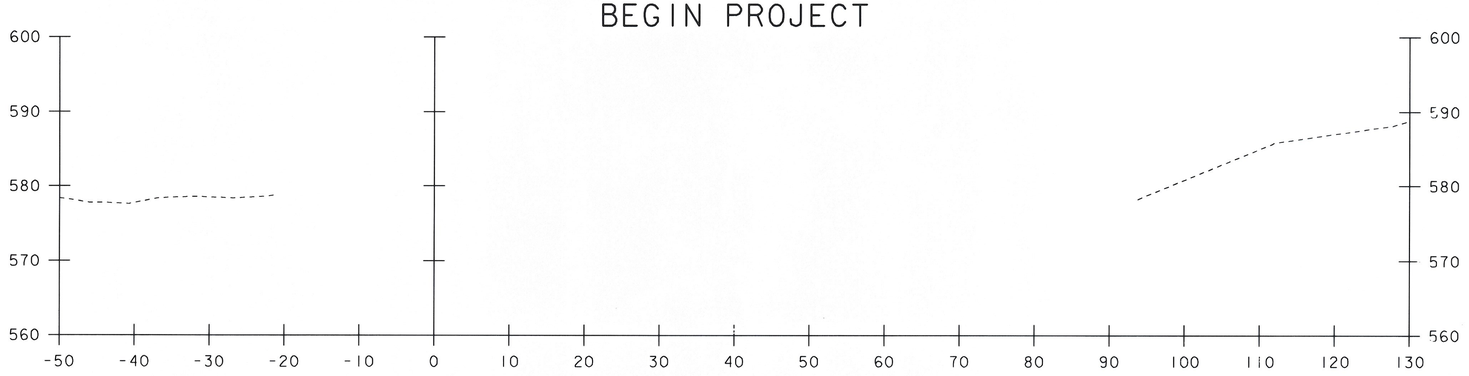
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME:	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
LAYOUT SHEET 13	SHEET 26 OF 78



1838+50



1838+00
BEGIN PROJECT



1837+93

- See "Field Notebook" (wall orange book) for Final X-Section shots and elevations.
- See "Quantity Computation" Binder for Item 203:5 Common Excavation calculations.
- original ground coordinates were scaled.

FINAL X-SECTIONS

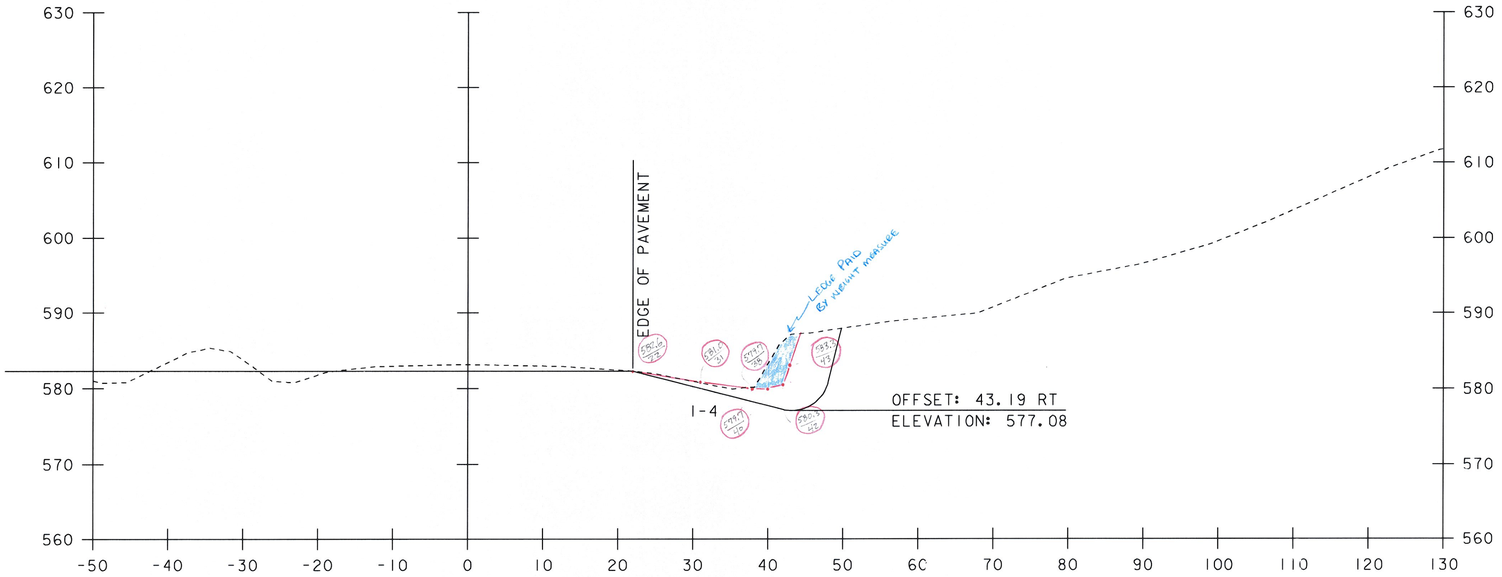
PMP 2-8-11
RCD 3/16/11

0 10 20
SCALE IN FEET

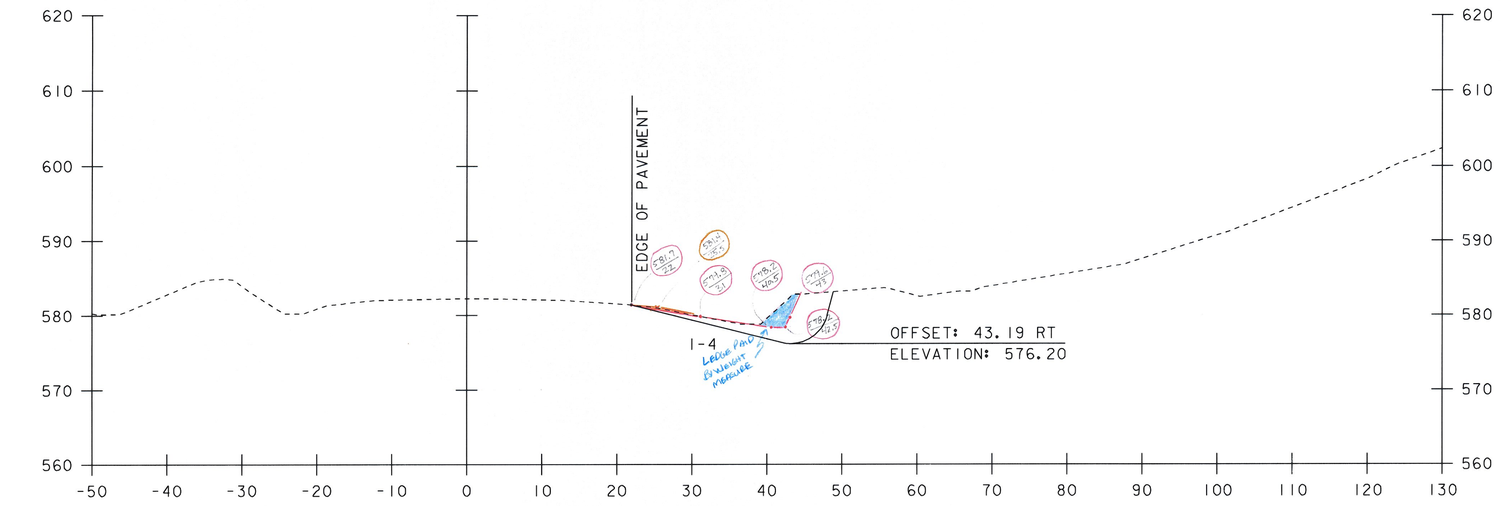
STA. 1837+93 TO STA. 1838+50

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07al58/Design/d07al58xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 1	SHEET 27 OF 78

Rockingham IM 091-1(57) FINAL X-SECTIONS



1839+50 ✓



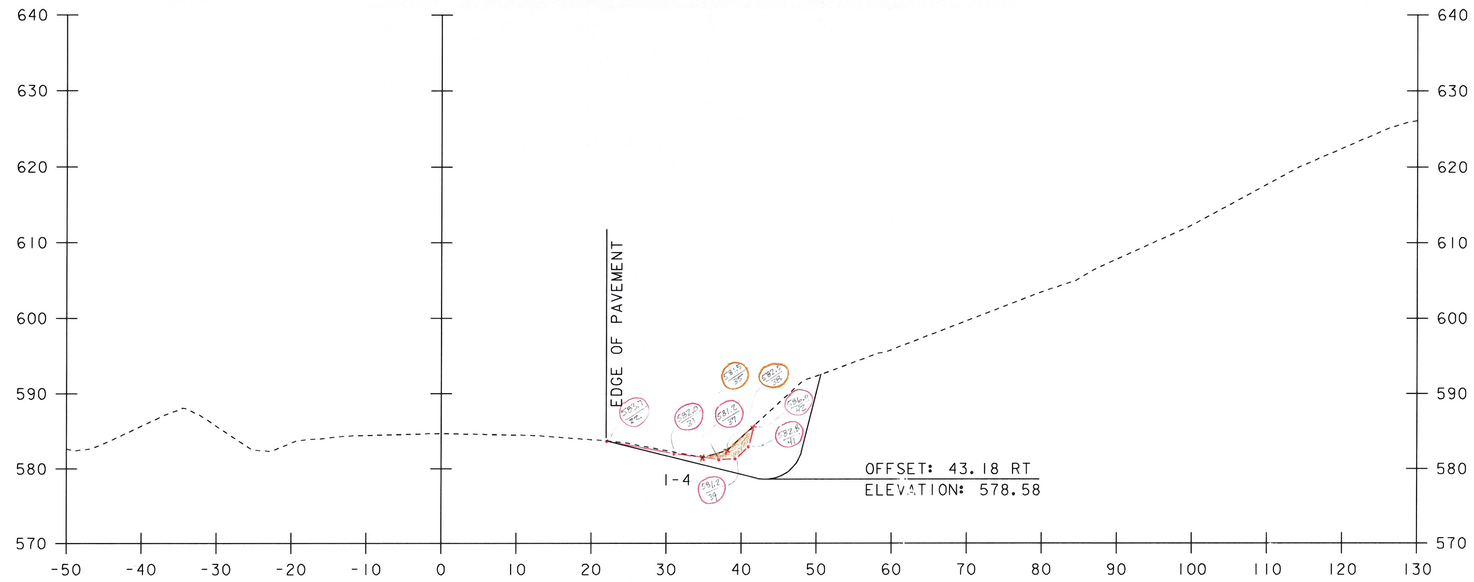
1839+00 ✓

0 10 20
SCALE IN FEET

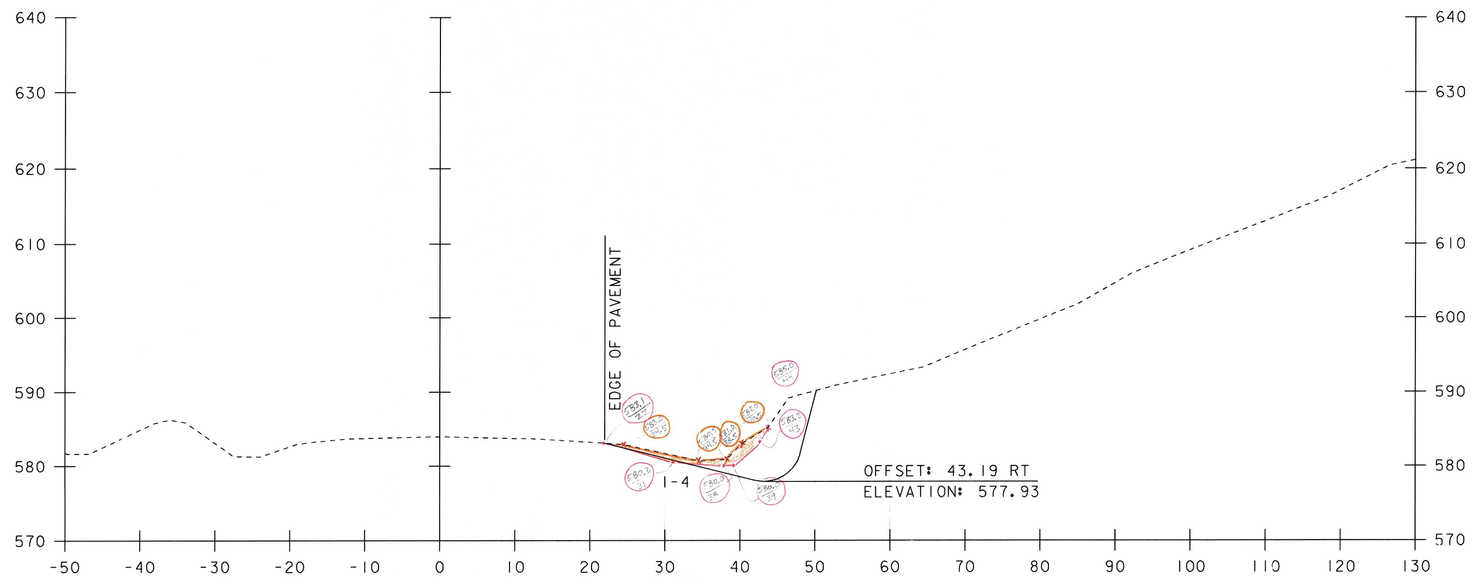
STA. 1839+00 TO STA. 1839+50

PLP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 2	SHEET 28 OF 78



1840+50



1840+00

0 10 20
SCALE IN FEET

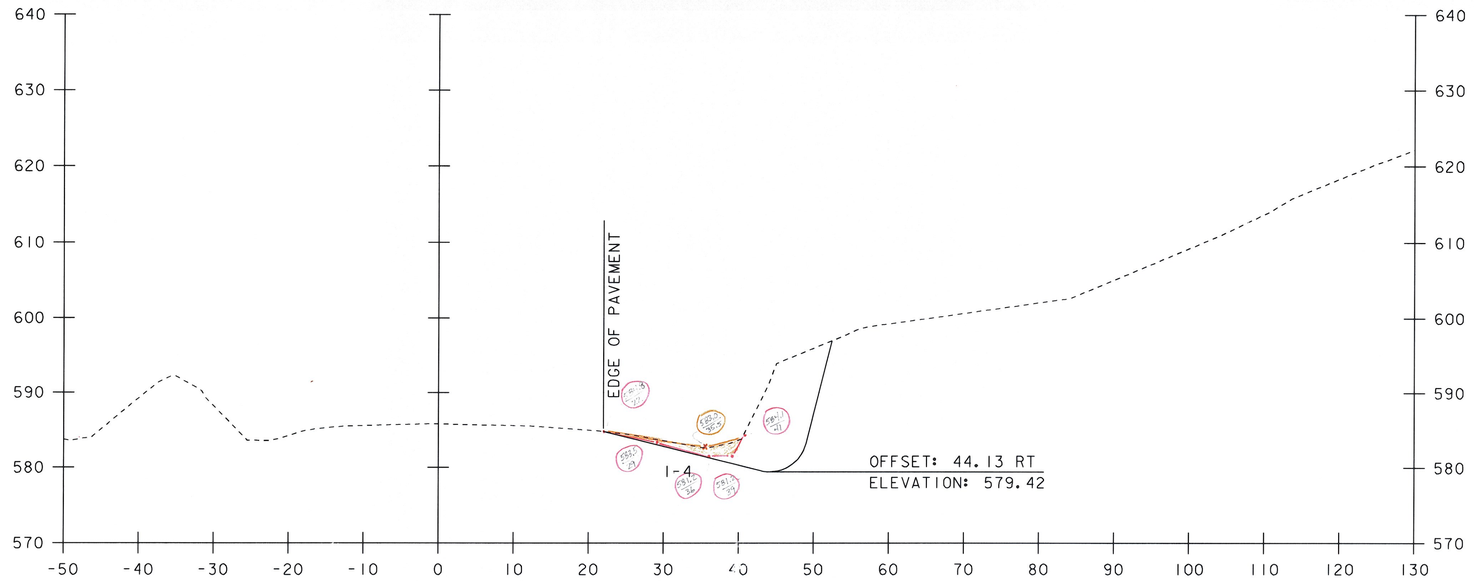
STA. 1840+00 TO STA. 1840+50

MLP 2-8-11 RCD 3/16/11

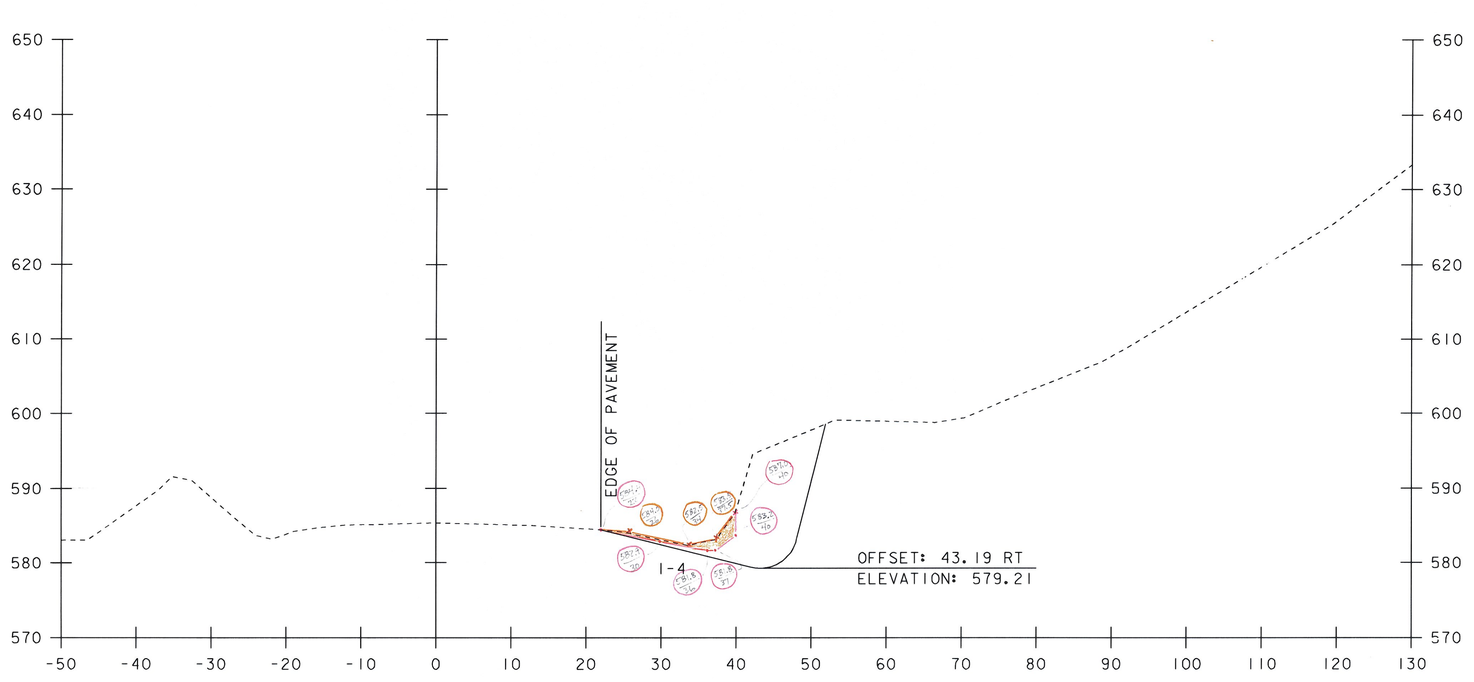
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 3

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 29 OF 78



1841+50



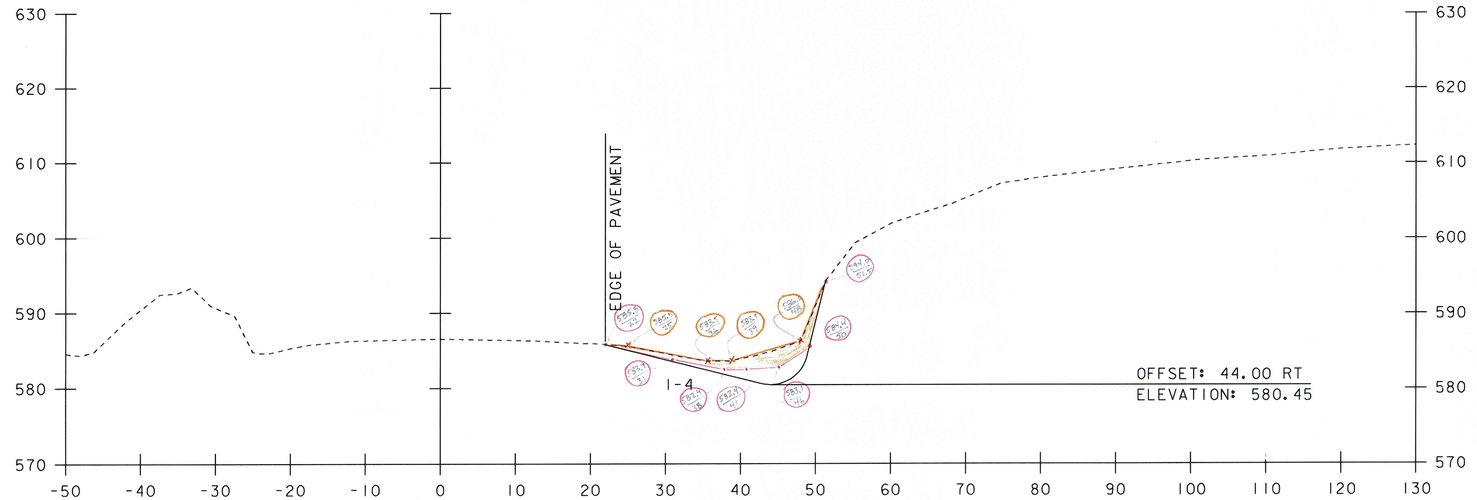
1841+00

0 10 20
SCALE IN FEET

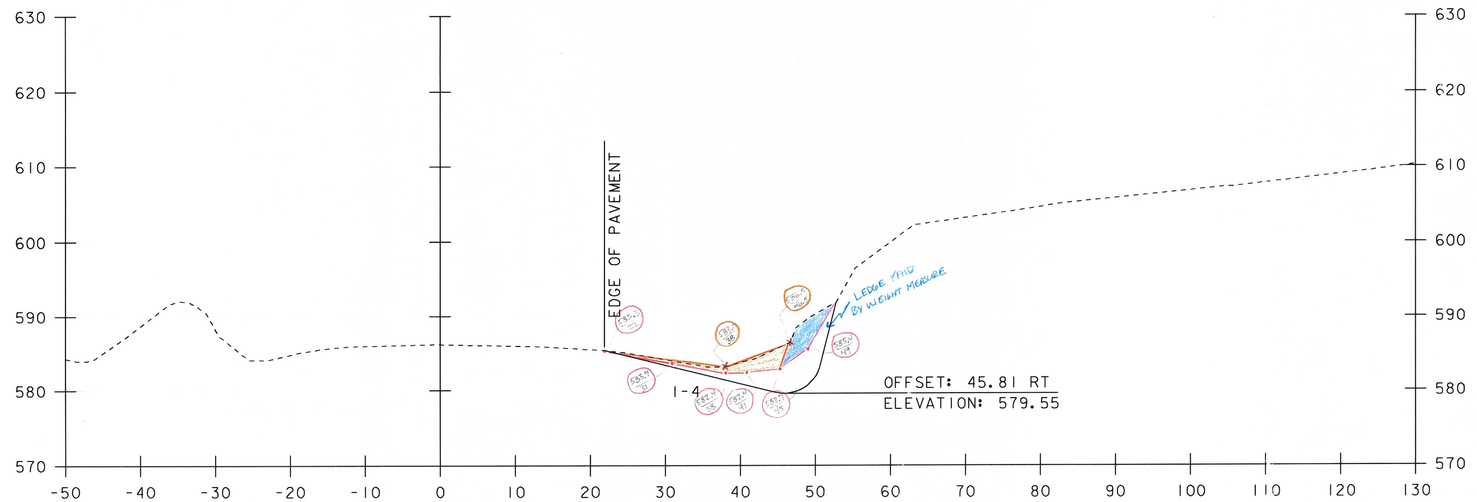
STA. 1841+00 TO STA. 1841+50

PWP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 4	SHEET 30 OF 78



1842+50



1842+00

0 10 20
SCALE IN FEET

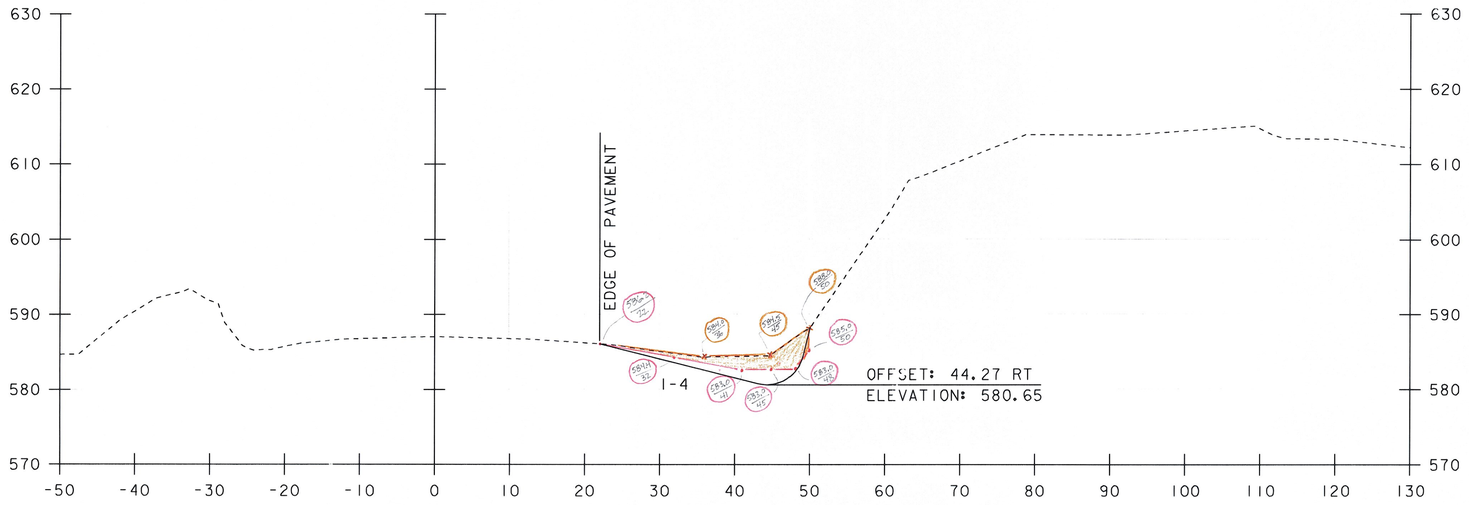
STA. 1842+00 TO STA. 1842+50

MP 2-8-11 RCD 3/16/11

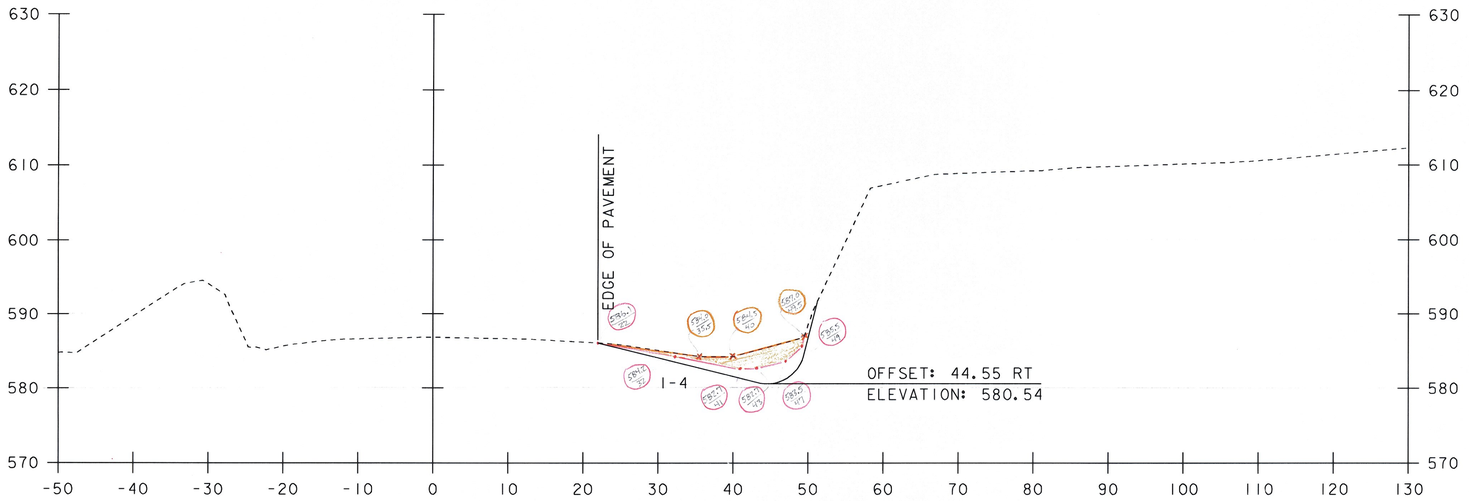
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 5

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 31 OF 78



1843+50 ✓



1843+00 ✓

0 10 20
SCALE IN FEET

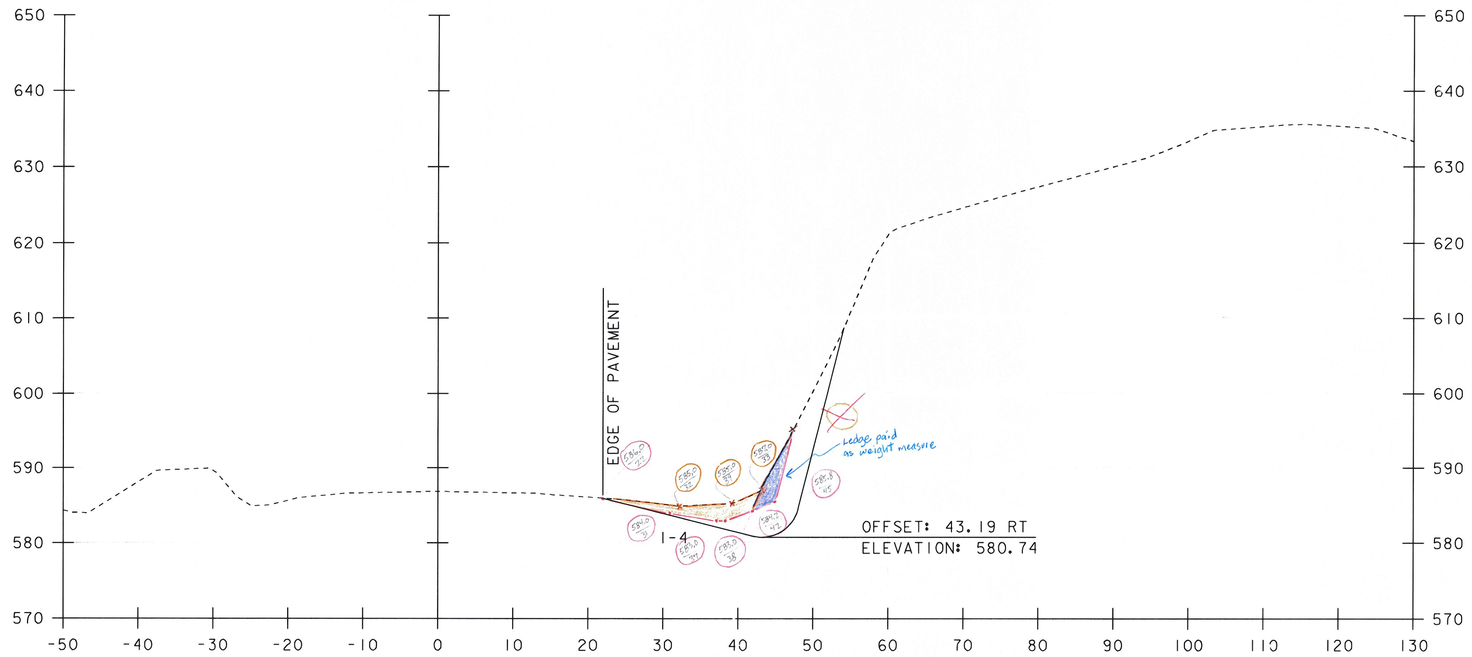
STA. 1843+00 TO STA. 1843+50

AVP 2-8-11 RCD 3/16/11

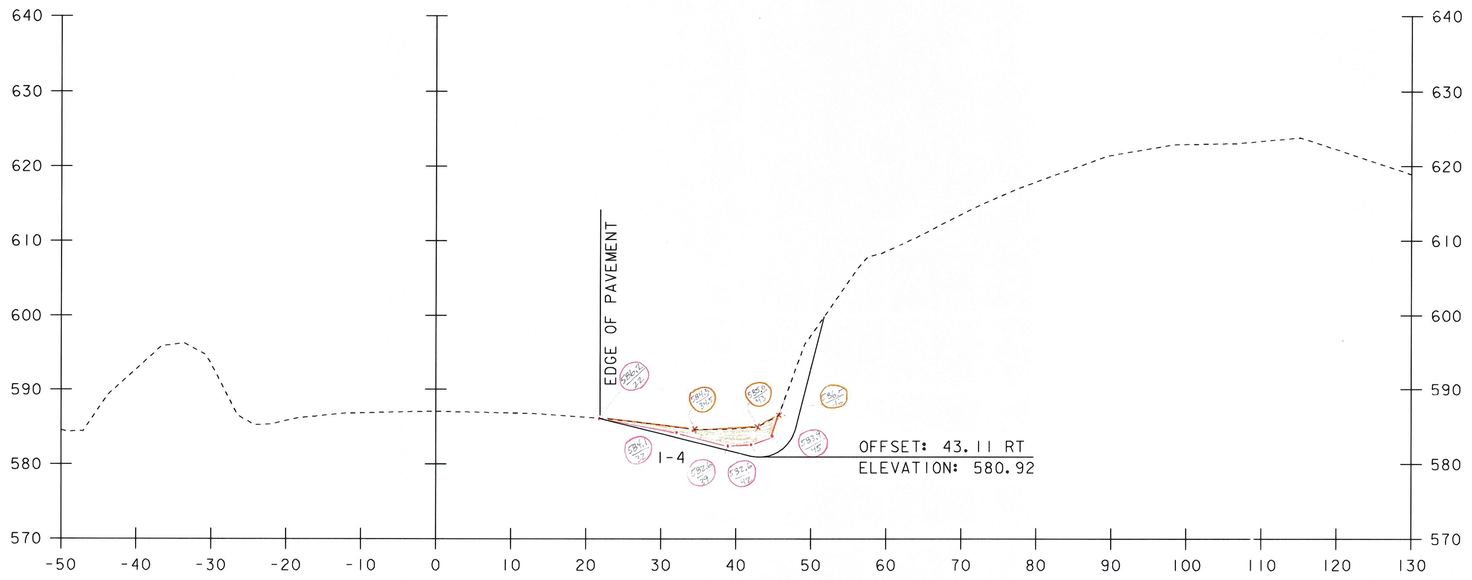
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 6

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 32 OF 78



1844+50 ✓



1844+00 ✓

0 10 20
SCALE IN FEET

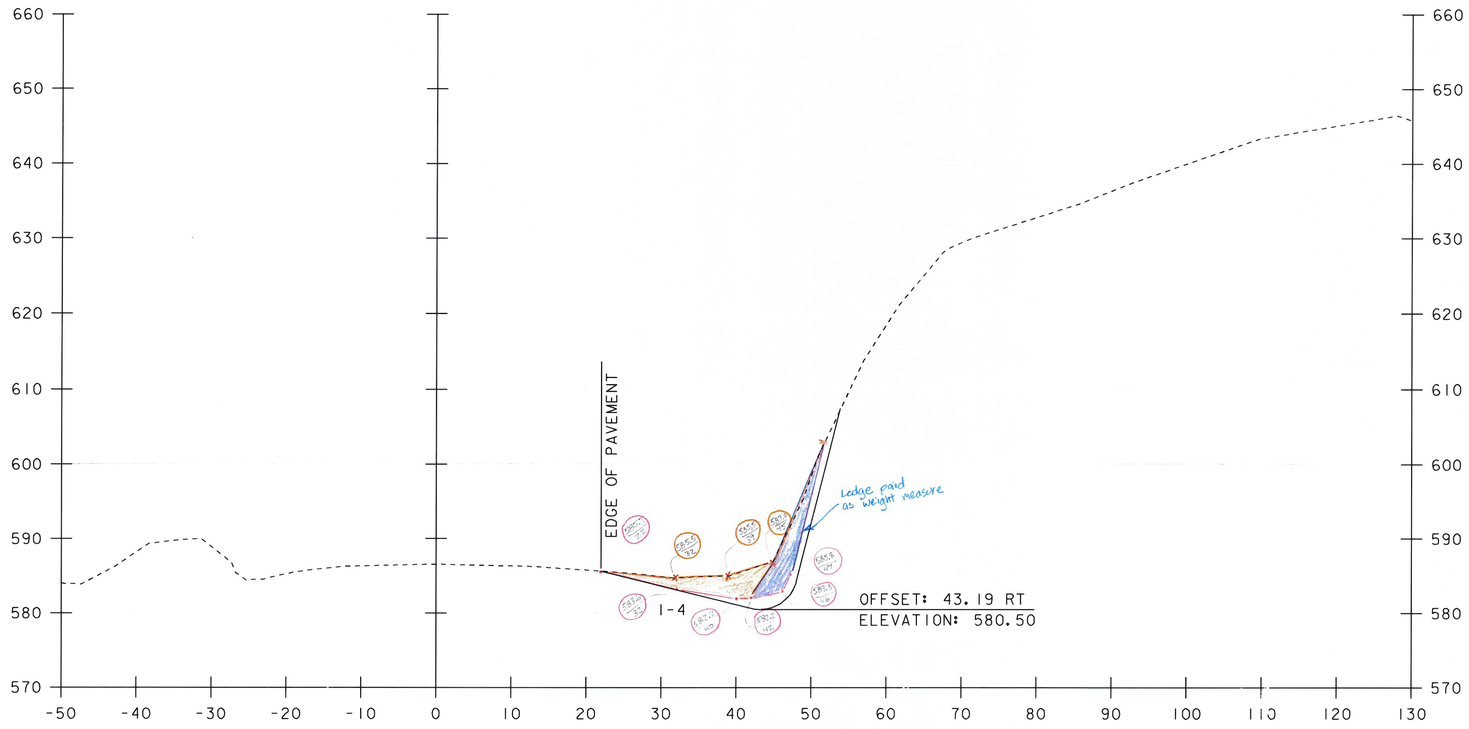
STA. 1844+00 TO STA. 1844+50

MP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 7

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 33 OF 78



1845+00

0 10 20
SCALE IN FEET

STA. 1845+00 TO STA. 1845+00

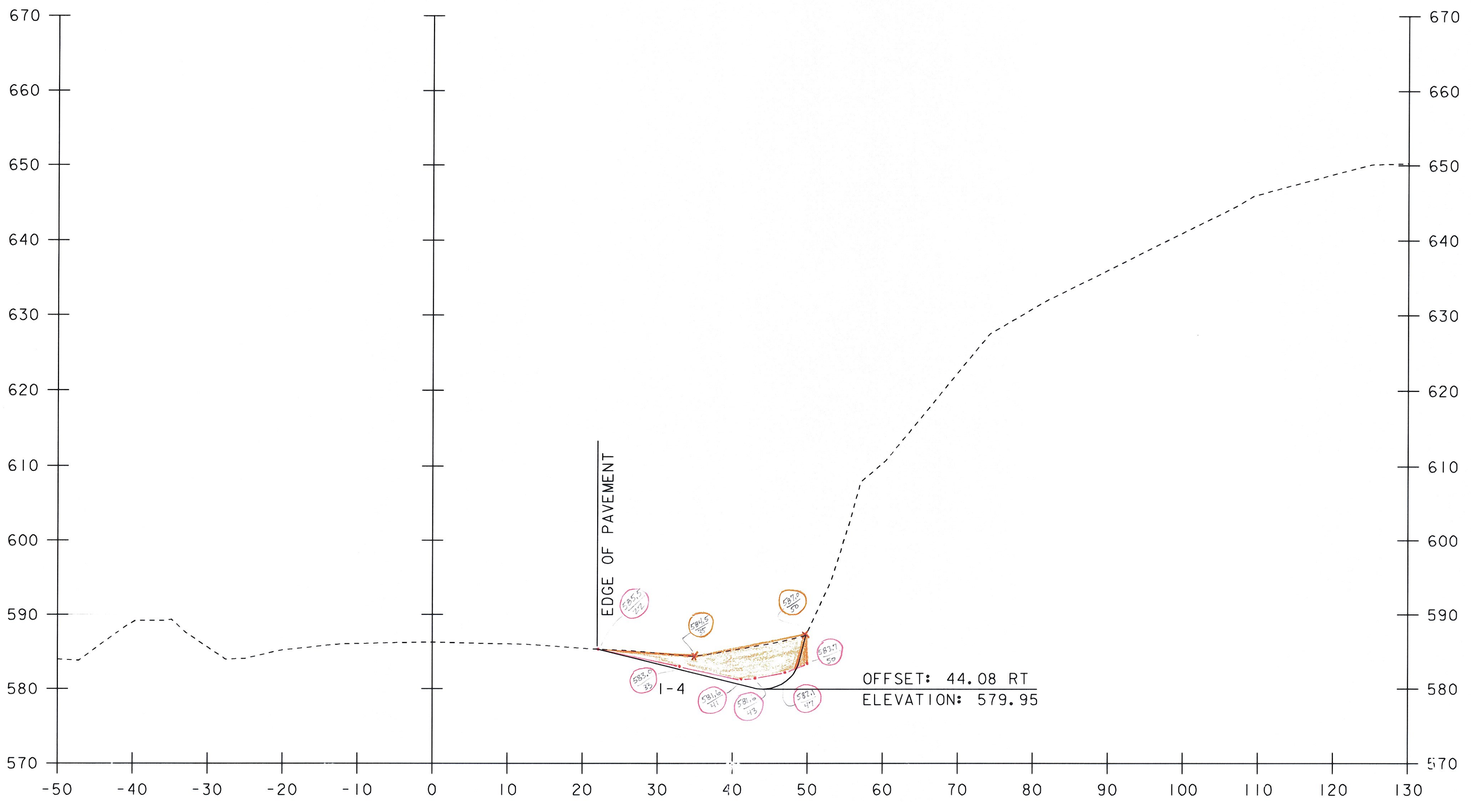
ACP 2-8-11

RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 8

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 34 OF 78



1845+50 ✓

0 10 20
SCALE IN FEET

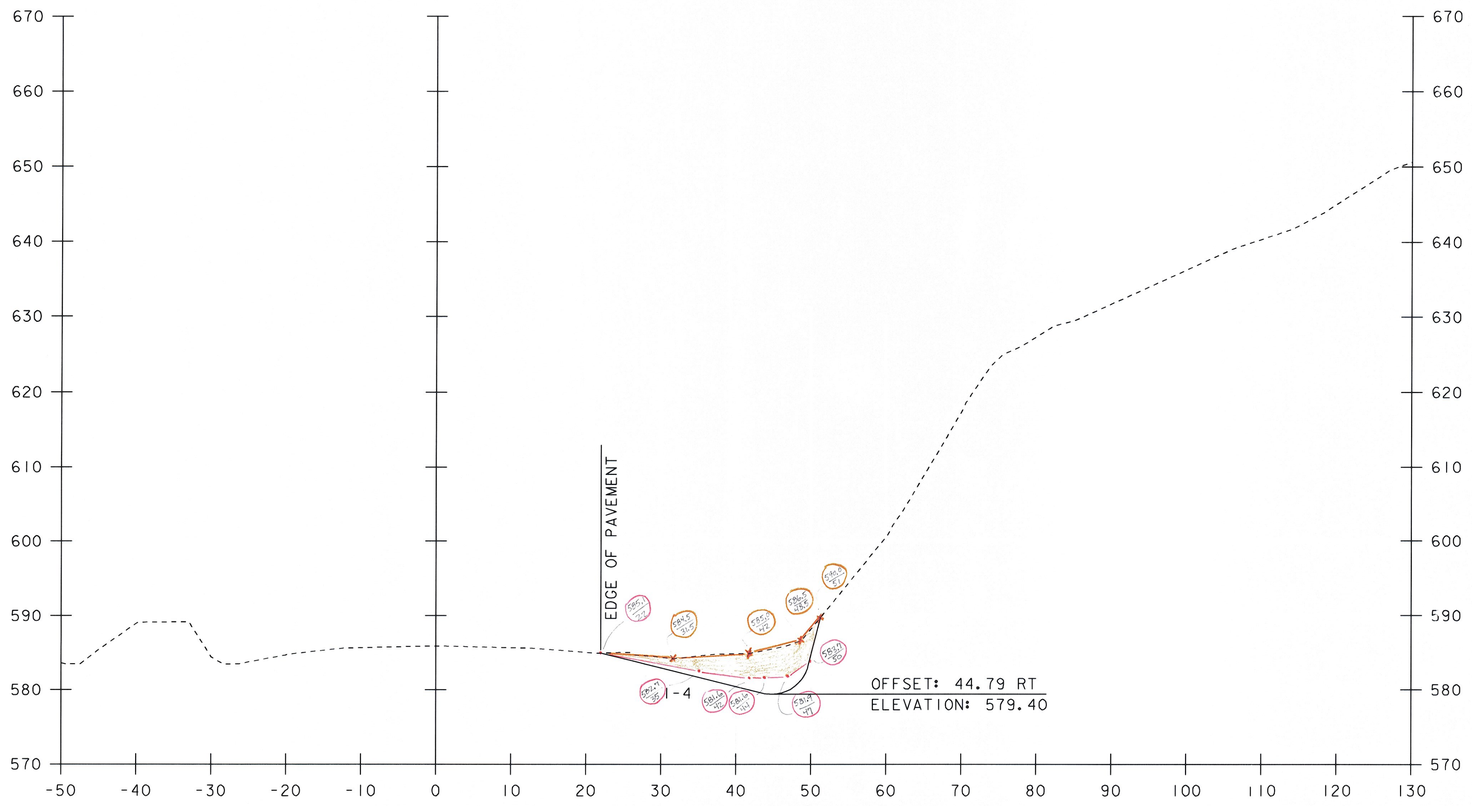
STA. 1845+50 TO STA. 1845+50

PMP 2-8-11 RCO 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 9

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 35 OF 78



1846+00 ✓

0 10 20
SCALE IN FEET

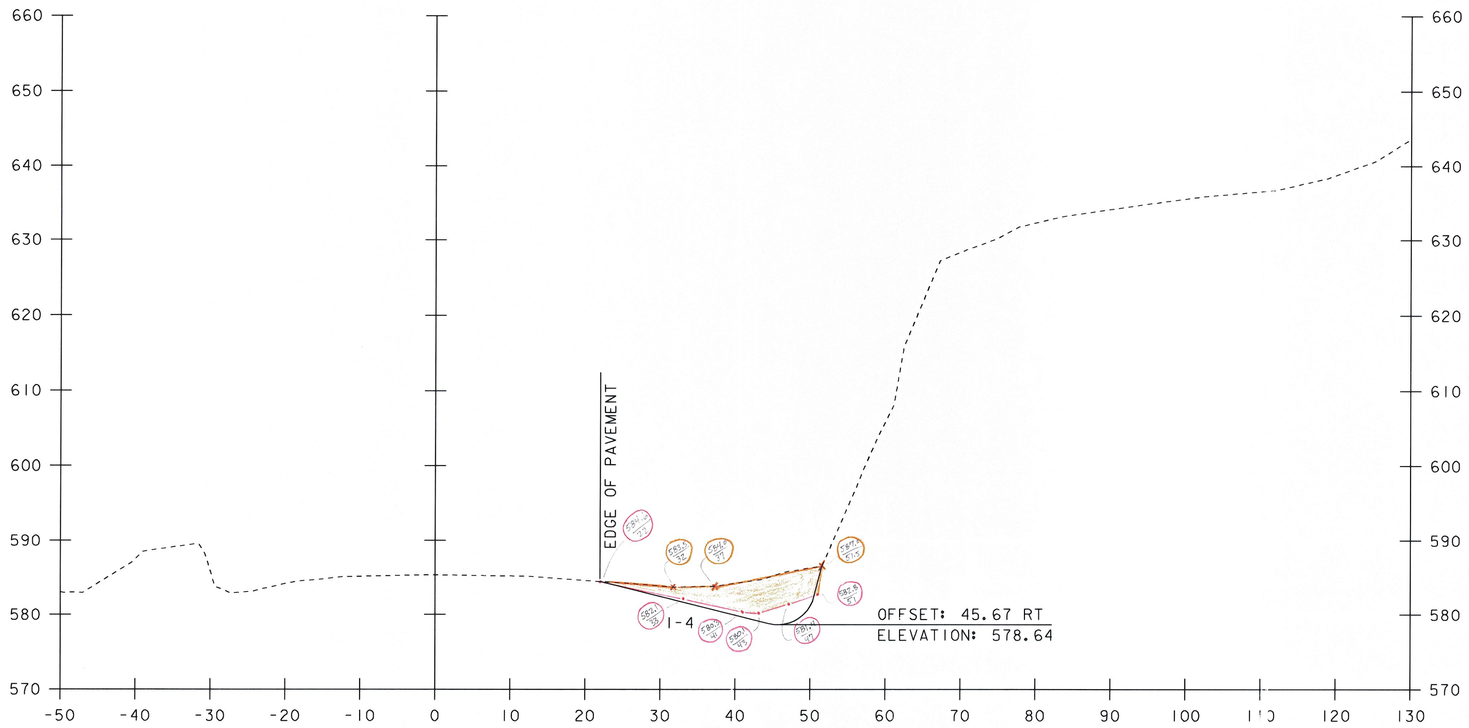
STA. 1846+00 TO STA. 1846+00

PLP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 10

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 36 OF 78



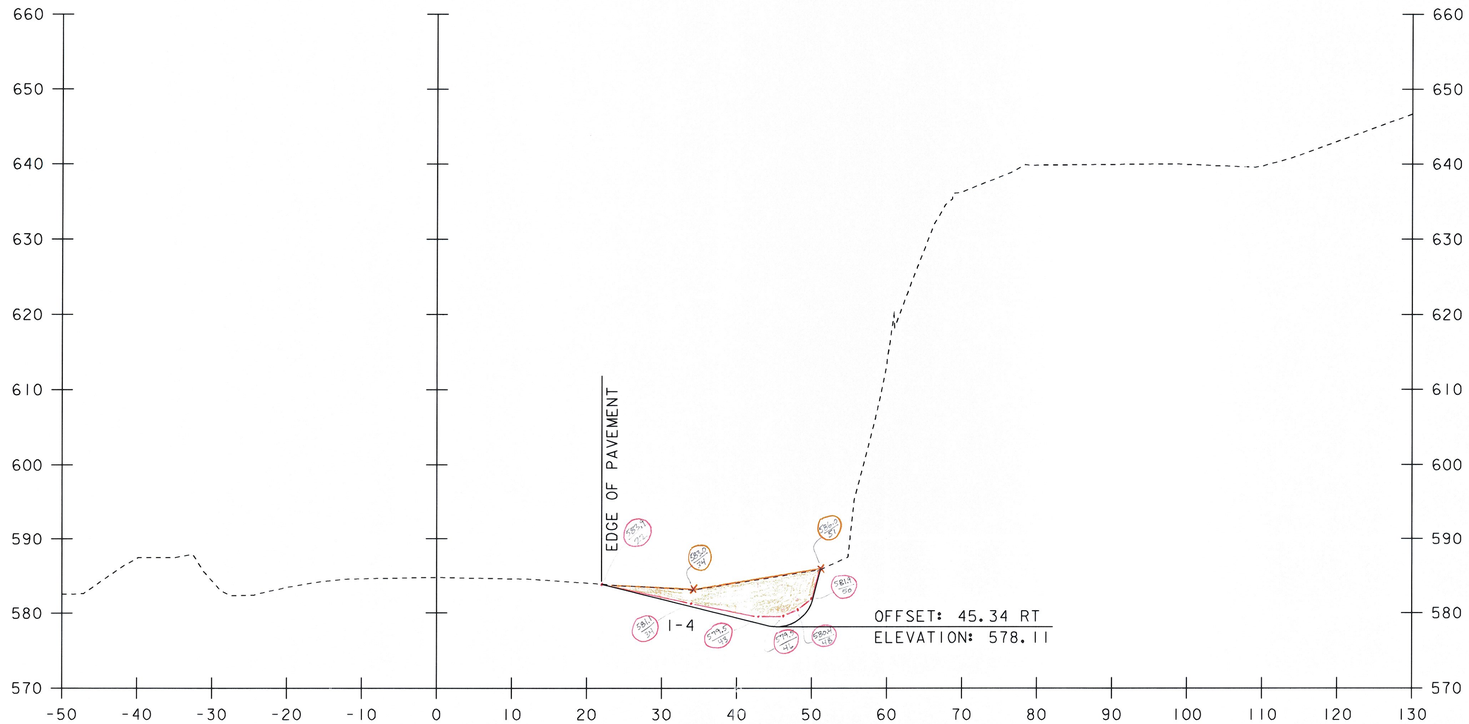
1846+50 ✓

0 10 20
SCALE IN FEET

STA. 1846+50 TO STA. 1846+50

PMP 2-8-11 RCD 8/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET II	SHEET 37 OF 78



1847+00✓

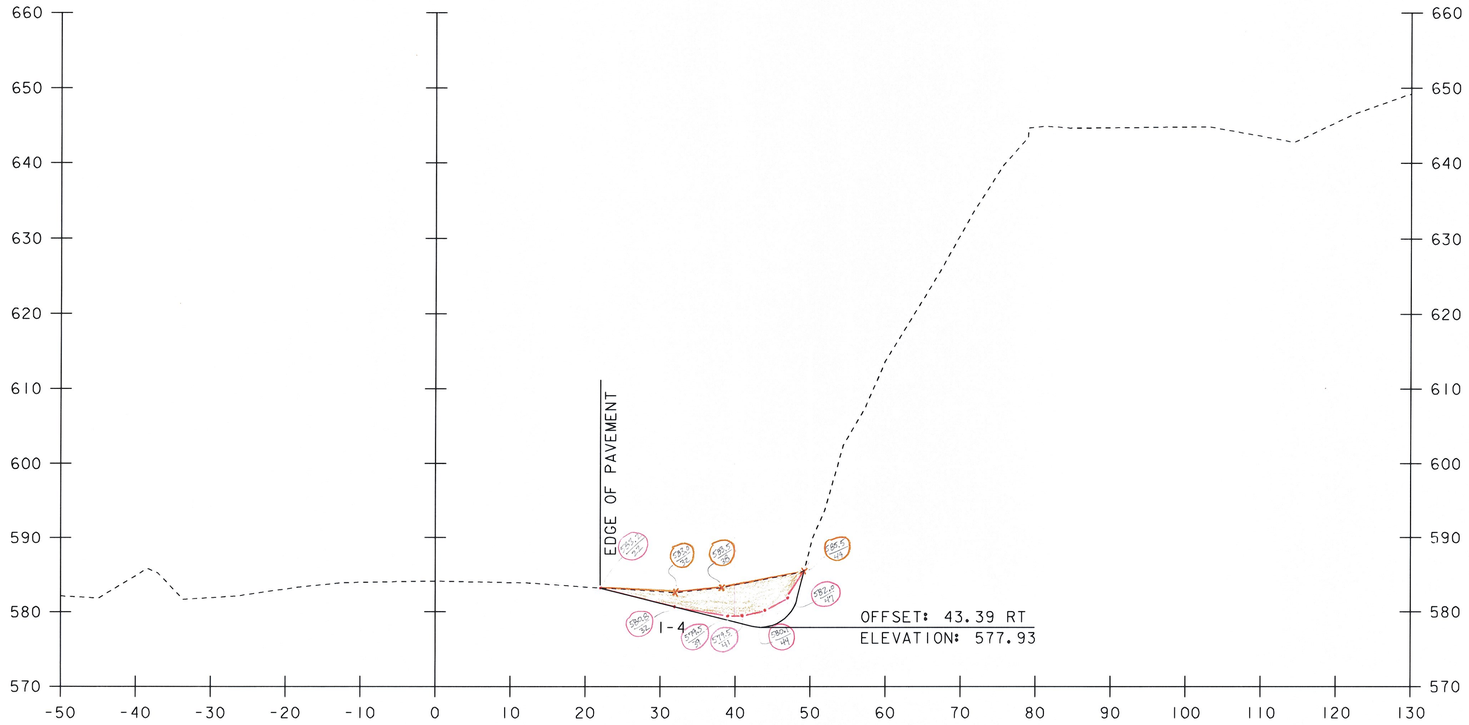
0 10 20
SCALE IN FEET

STA. 1847+00 TO STA. 1847+00

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 12

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 38 OF 78



1847+50 ✓

0 10 20
SCALE IN FEET

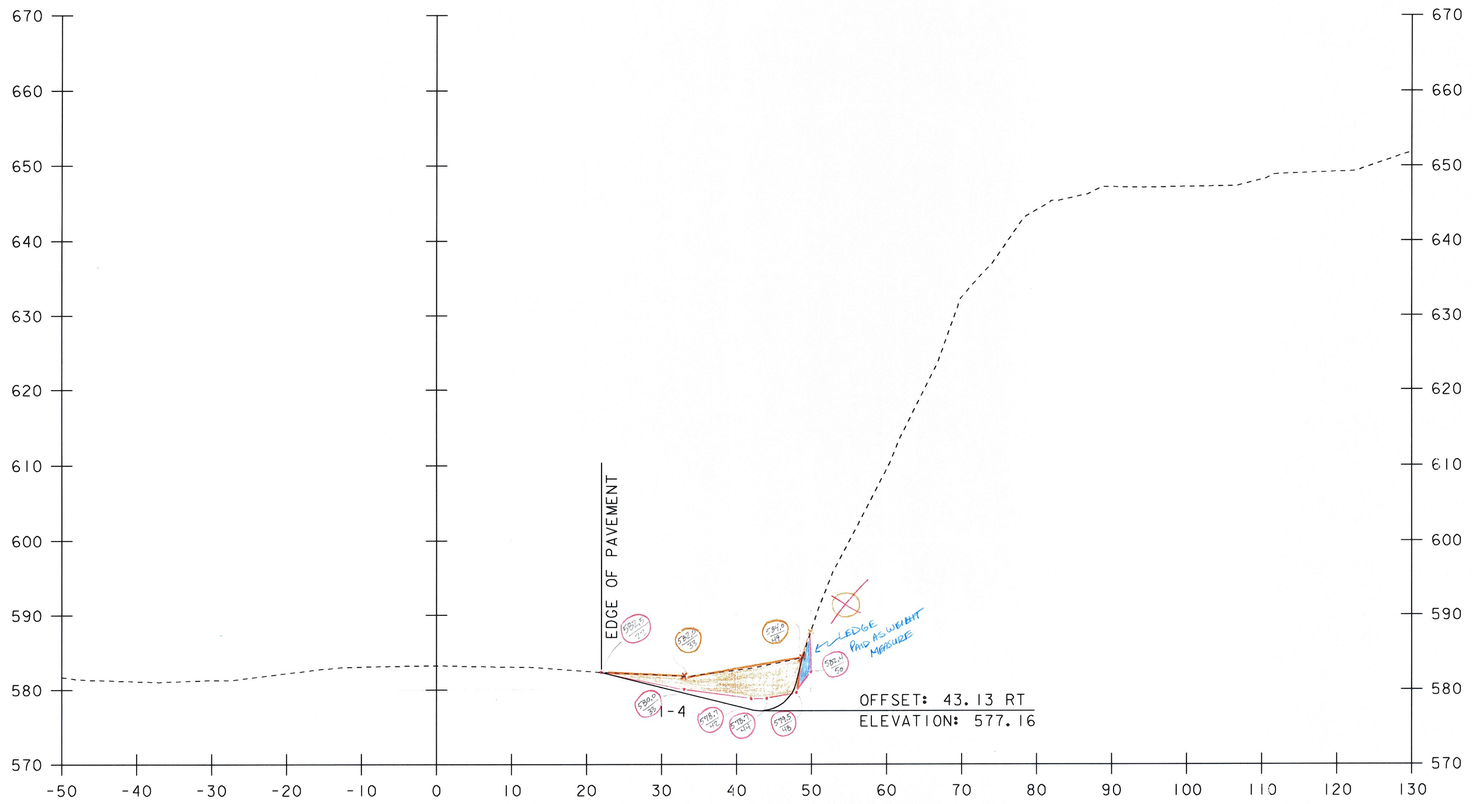
STA. 1847+50 TO STA. 1847+50

ACP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 13

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 39 OF 78



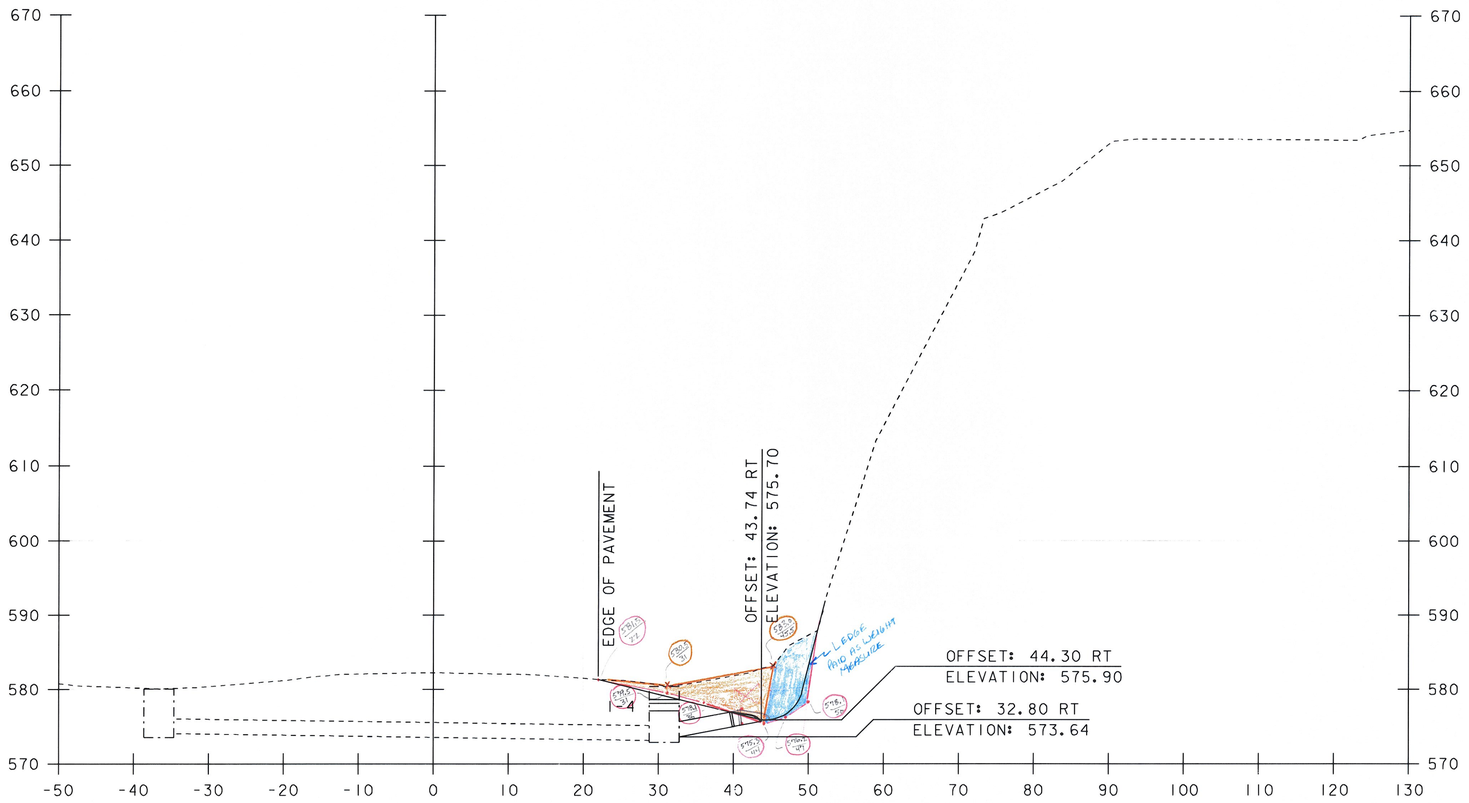
1848+00 ✓

0 10 20
SCALE IN FEET

STA. 1848+00 TO STA. 1848+00

7-8-11 RCO 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07al58/Design/d07al58xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 14	SHEET 40 OF 78



1848+50 ✓

EXISTING 24'' X 64' CSP
NEW 24'' X 6' CPEP WITH END SECTION

0 10 20
SCALE IN FEET

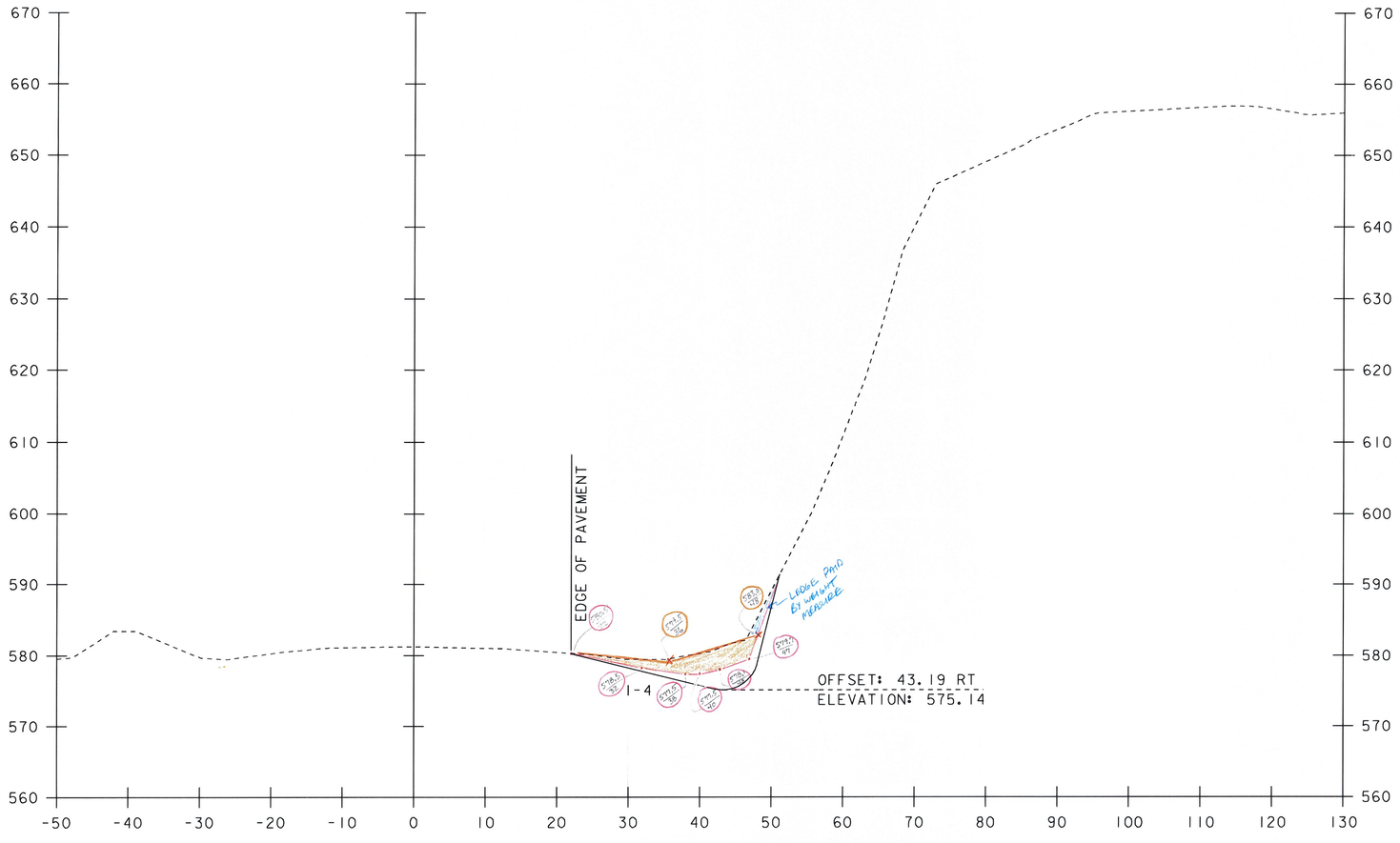
STA. 1848+50 TO STA. 1848+50

PMP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 15

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 41 OF 78



1849+00

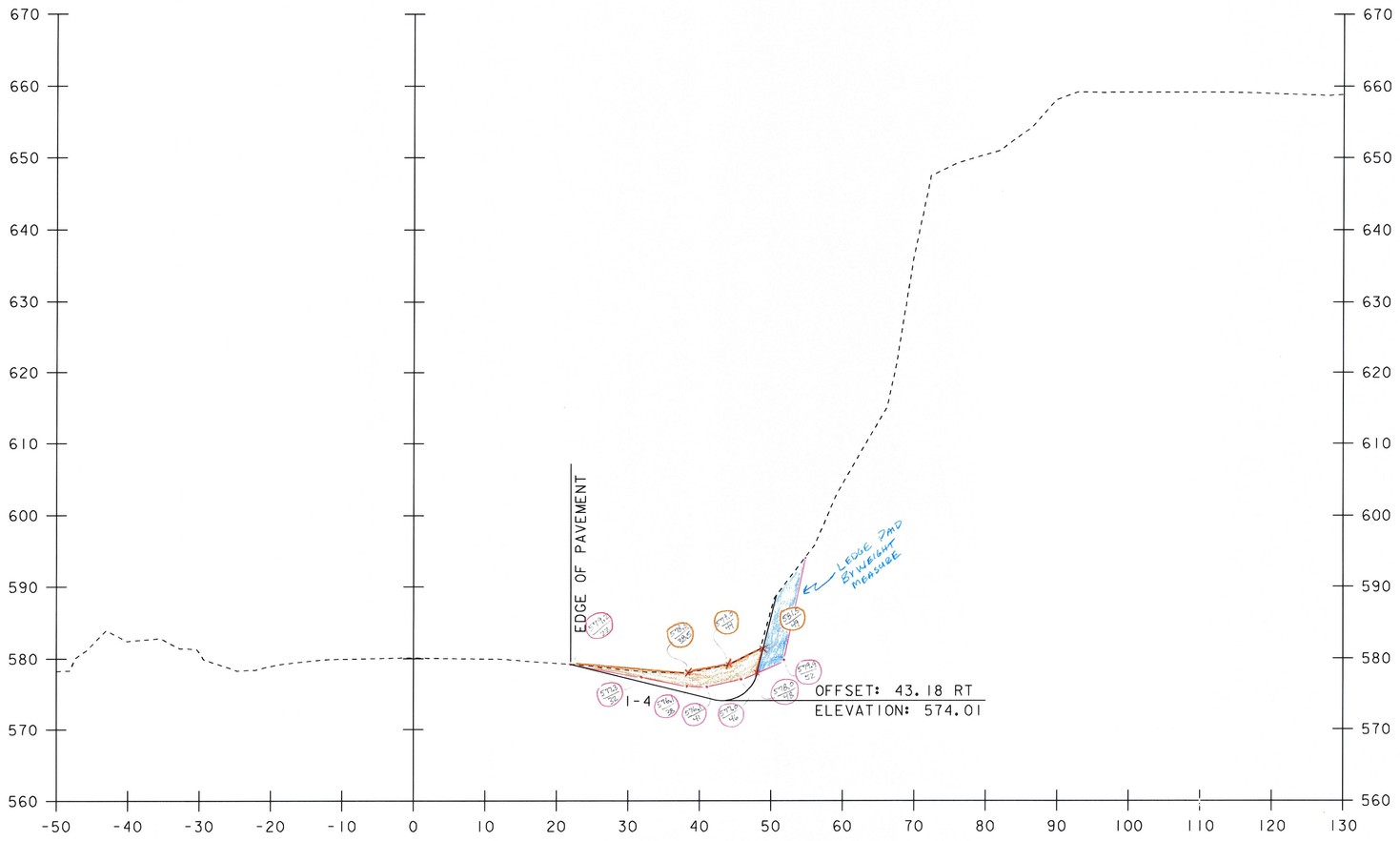
0 10 20
SCALE IN FEET

STA. 1849+00 TO STA. 1849+00

RCP 2-8-11

RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 16	SHEET 42 OF 78



1849+50 ✓

0 10 20
SCALE IN FEET

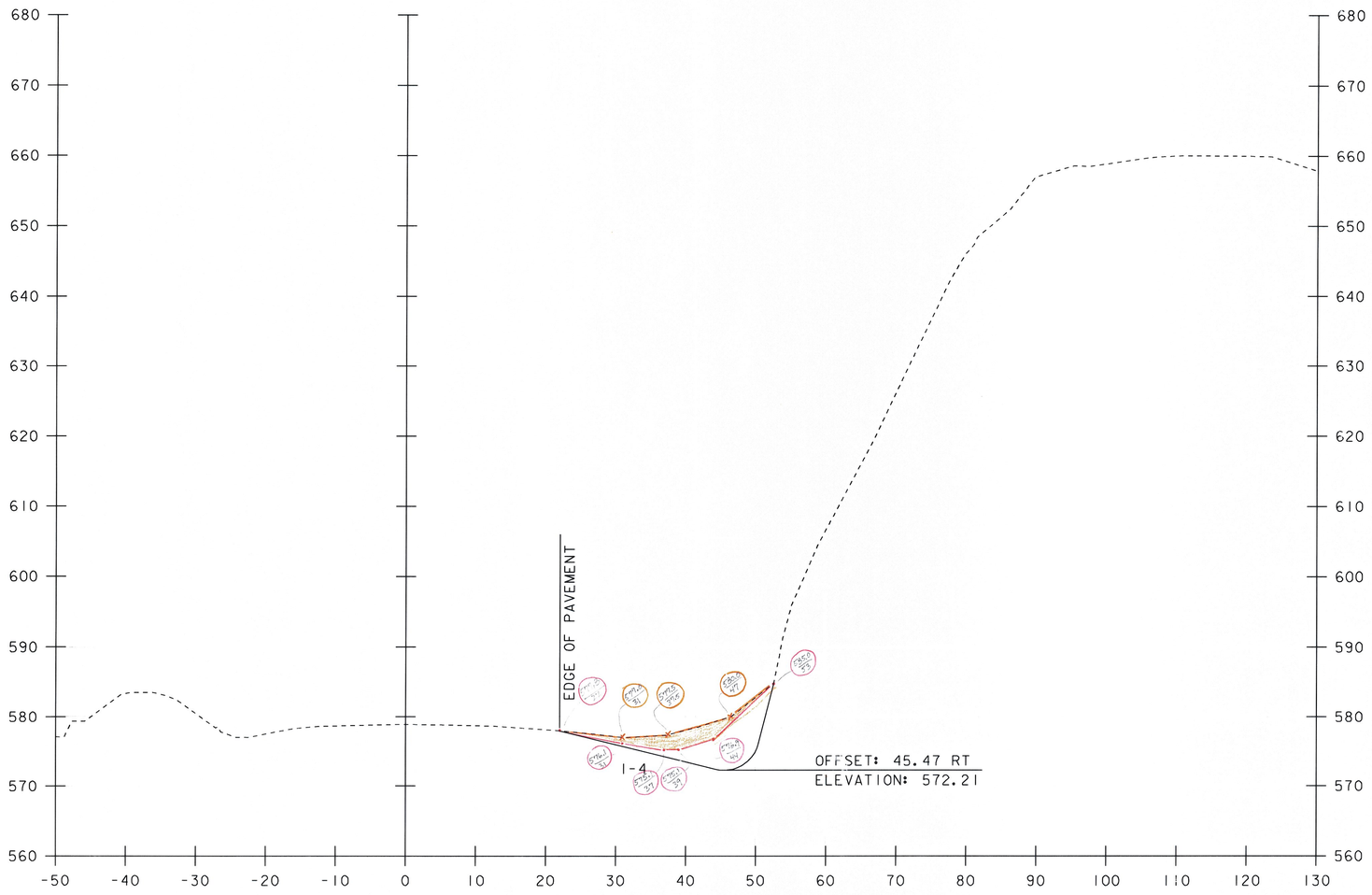
STA. 1849+50 TO STA. 1849+50

PUP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 17

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 43 OF 78



1850+00

0 10 20
SCALE IN FEET

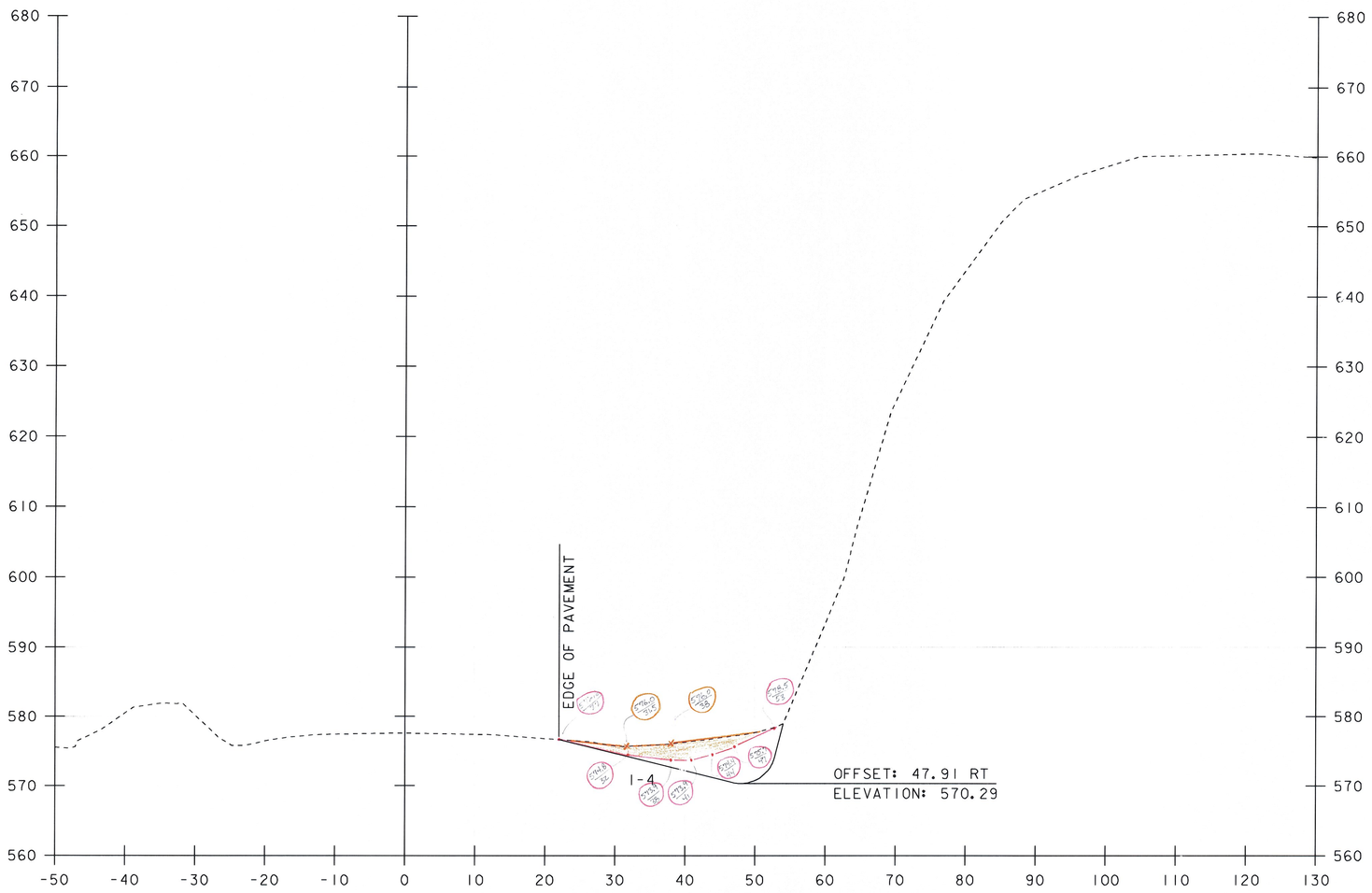
STA. 1850+00 TO STA. 1850+00

PLP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 18

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 44 OF 78

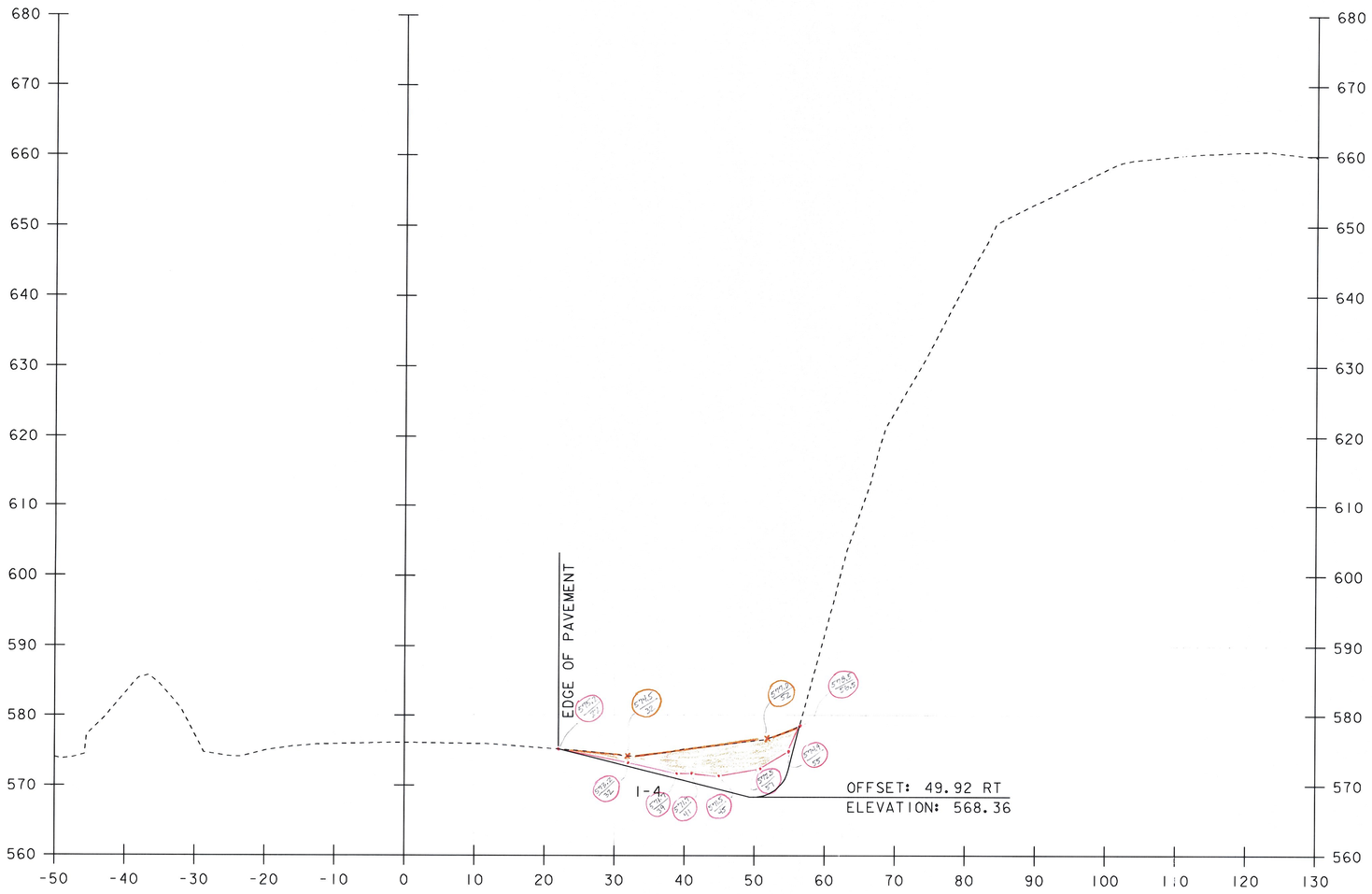


1850+50

0 10 20
SCALE IN FEET

STA. 1850+50 TO STA. 1850+50

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 19	SHEET 45 OF 78



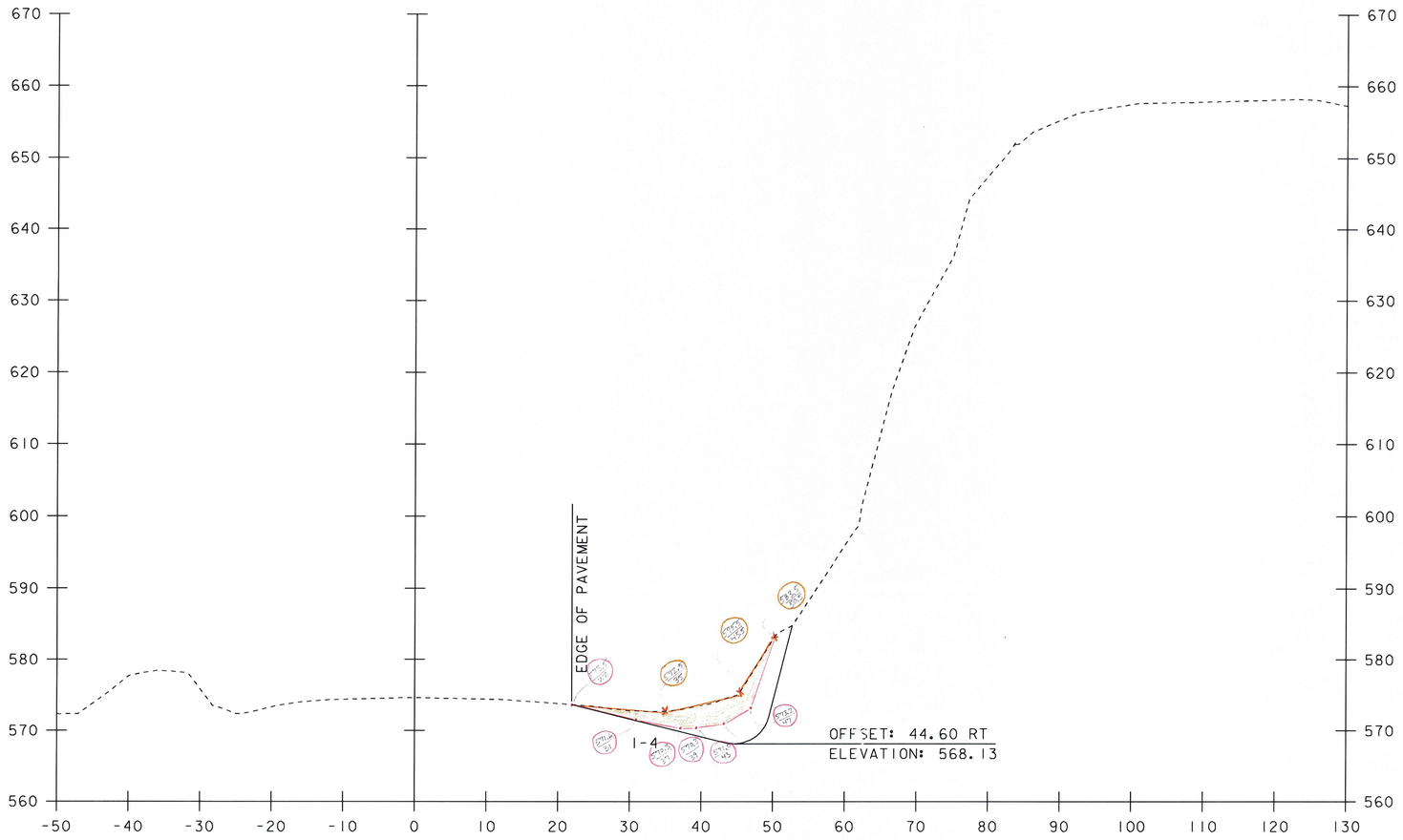
1851+00✓

2-8-11 RCD 3/16/11

0 10 20
SCALE IN FEET

STA. 1851+00 TO STA. 1851+00

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 20	SHEET 46 OF 78



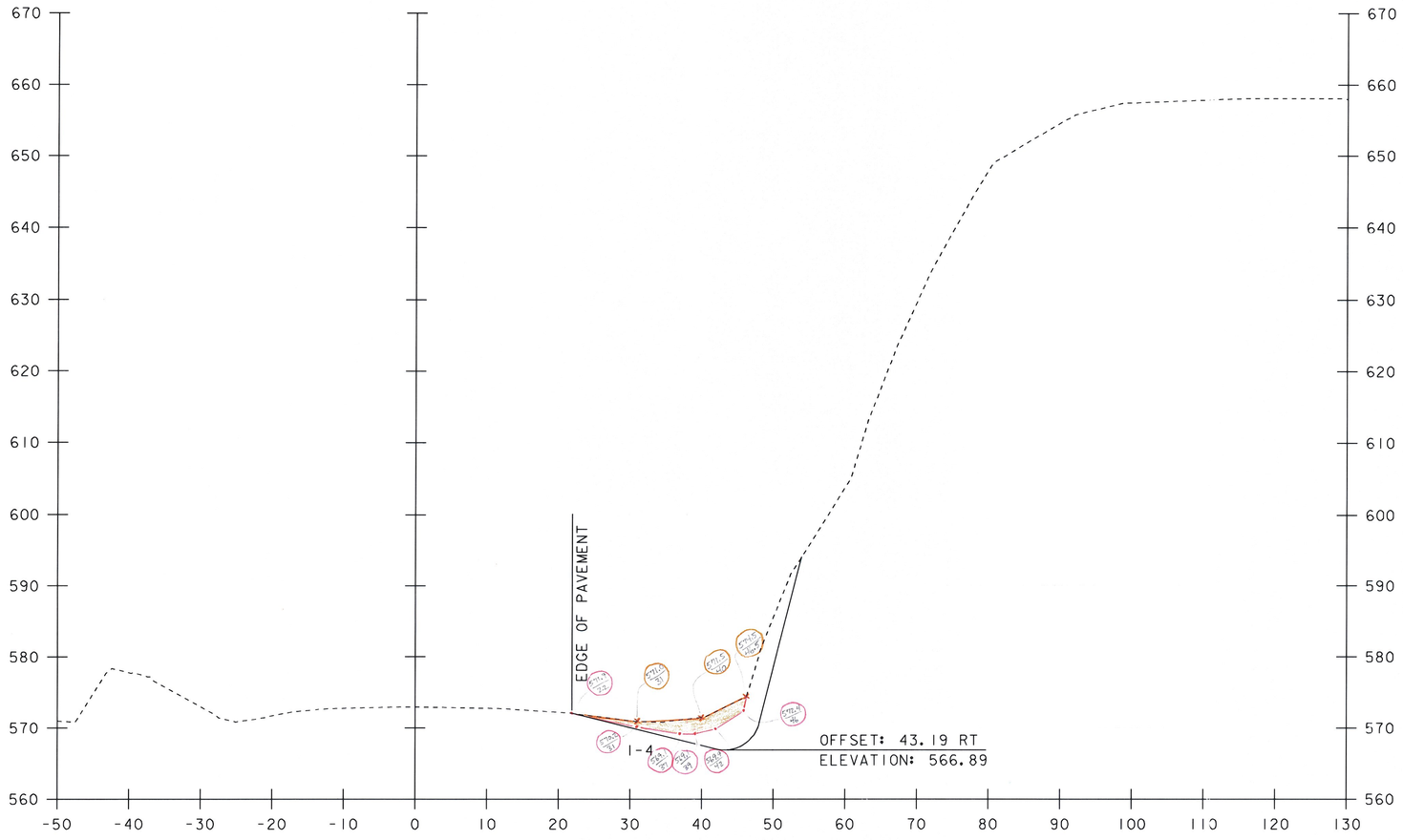
1851+50 ✓

0 10 20
SCALE IN FEET

STA. 1851+50 TO STA. 1851+50

MP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 21	SHEET 47 OF 78



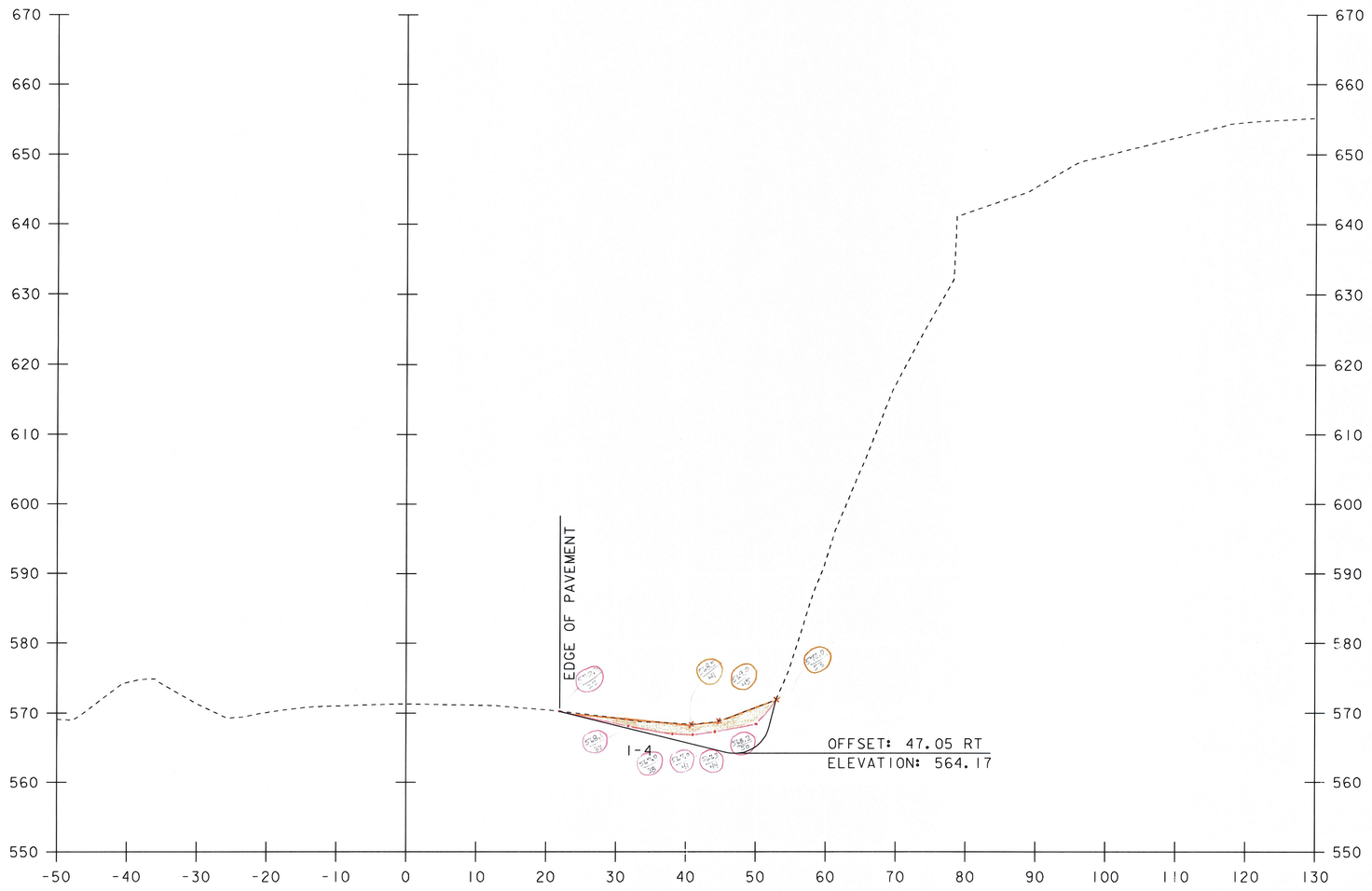
1852+00✓

0 10 20
SCALE IN FEET

STA. 1852+00 TO STA. 1852+00

RCO 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 22	SHEET 48 OF 78



1852+50 ✓

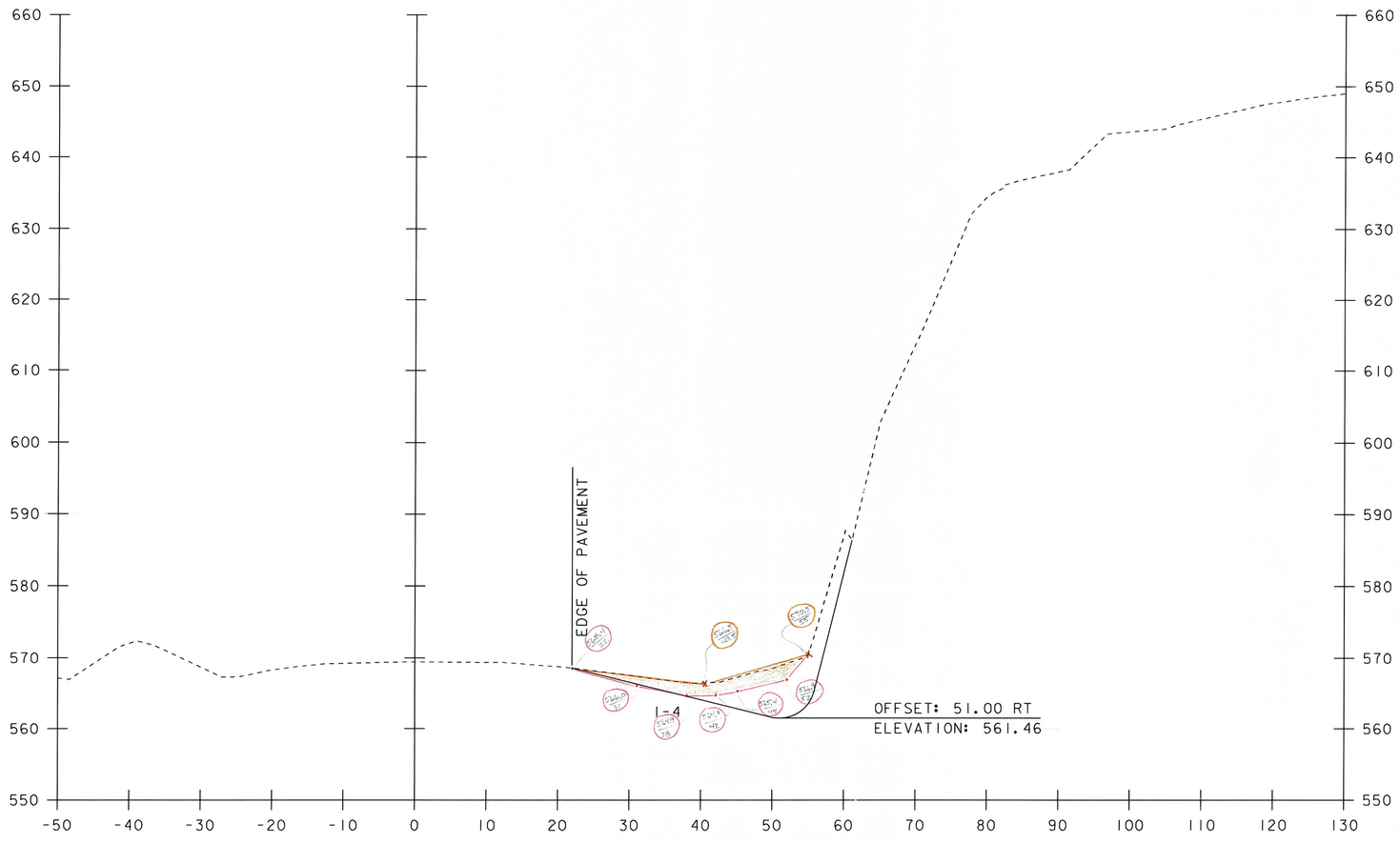
0 10 20
SCALE IN FEET

STA. 1852+50 TO STA. 1852+50

Acf 2-8-11

RCO 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 23	SHEET 49 OF 78



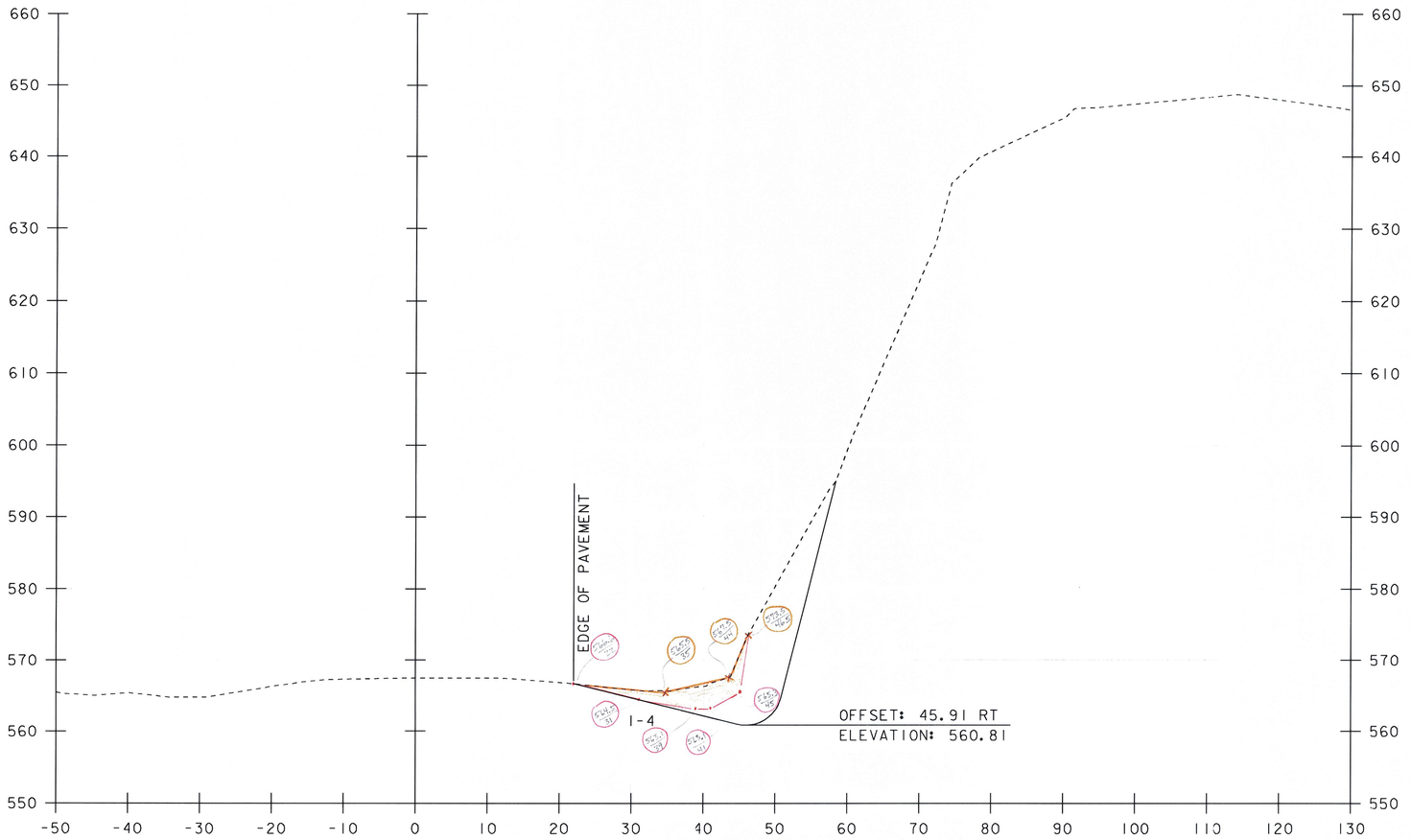
1853+00

0 10 20
SCALE IN FEET

STA. 1853+00 TO STA. 1853+00

MLP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 24	SHEET 50 OF 78



1853+50 ✓

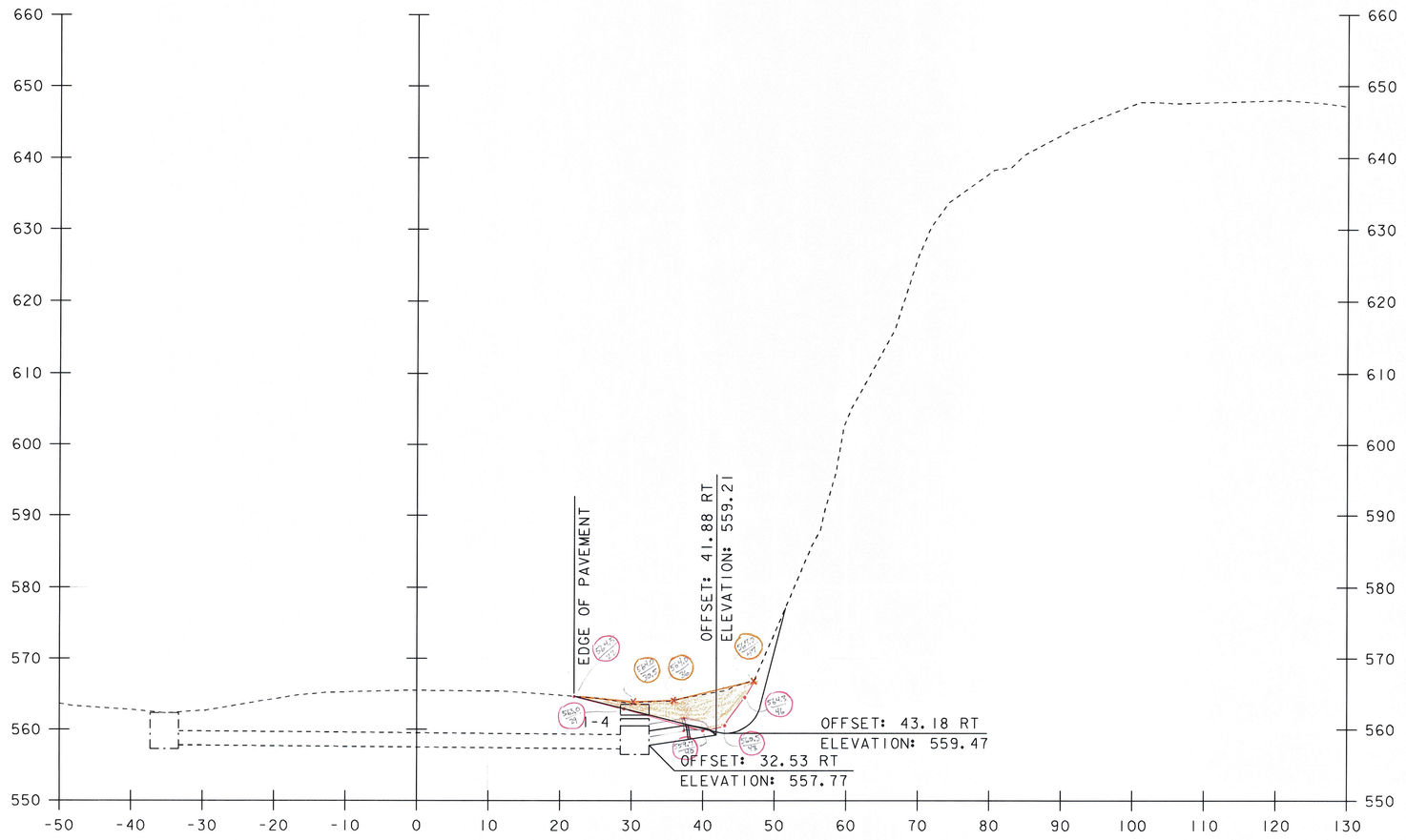
0 10 20
SCALE IN FEET

STA. 1853+50 TO STA. 1853+50

MP 2-8-11

RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 25	SHEET 51 OF 78



1854+00

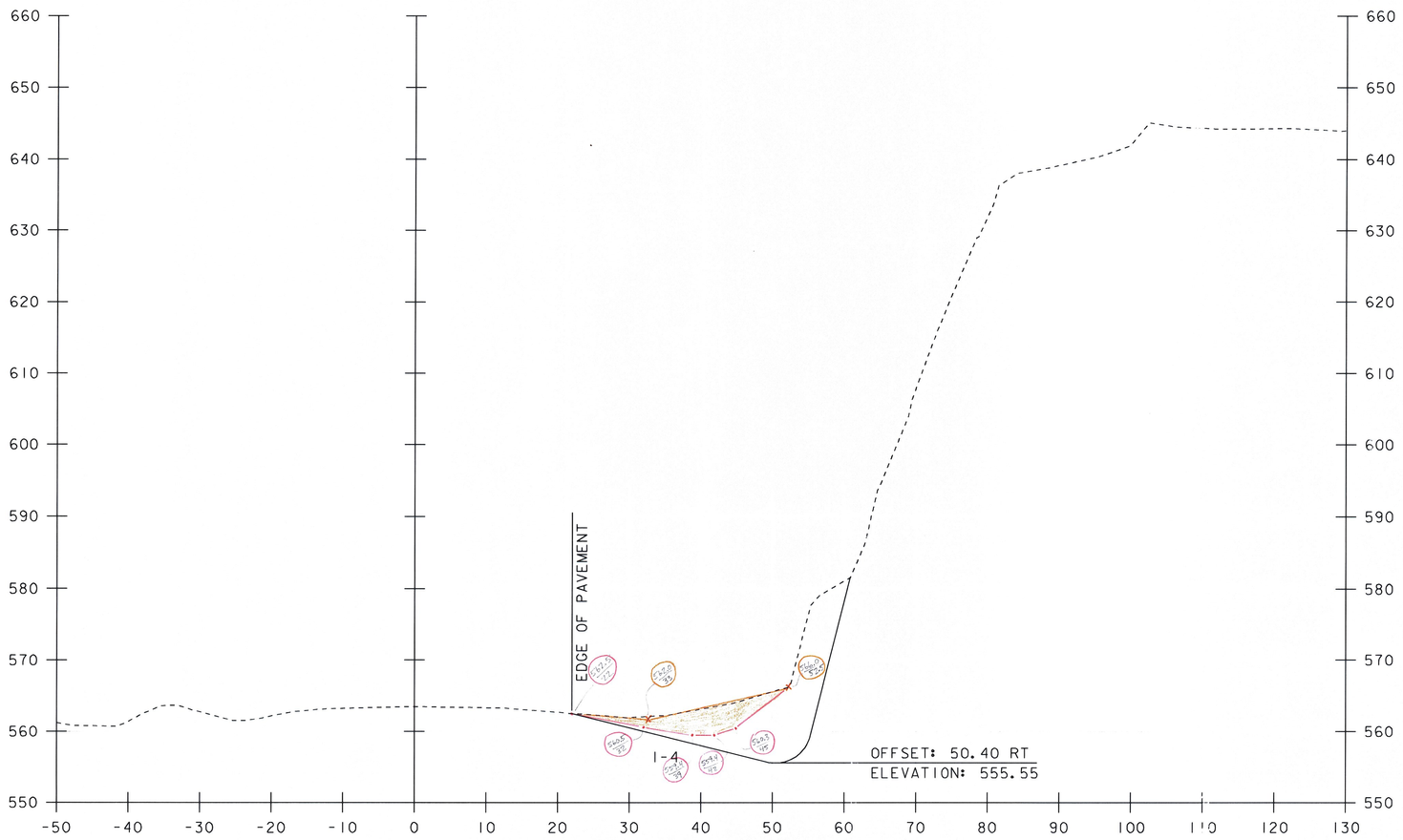
EXISTING 24'' X 62' CSP
NEW 24'' X 4' CPEP WITH END SECTION

0 10 20
SCALE IN FEET

STA. 1854+00 TO STA. 1854+00

RLP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 26	SHEET 52 OF 78



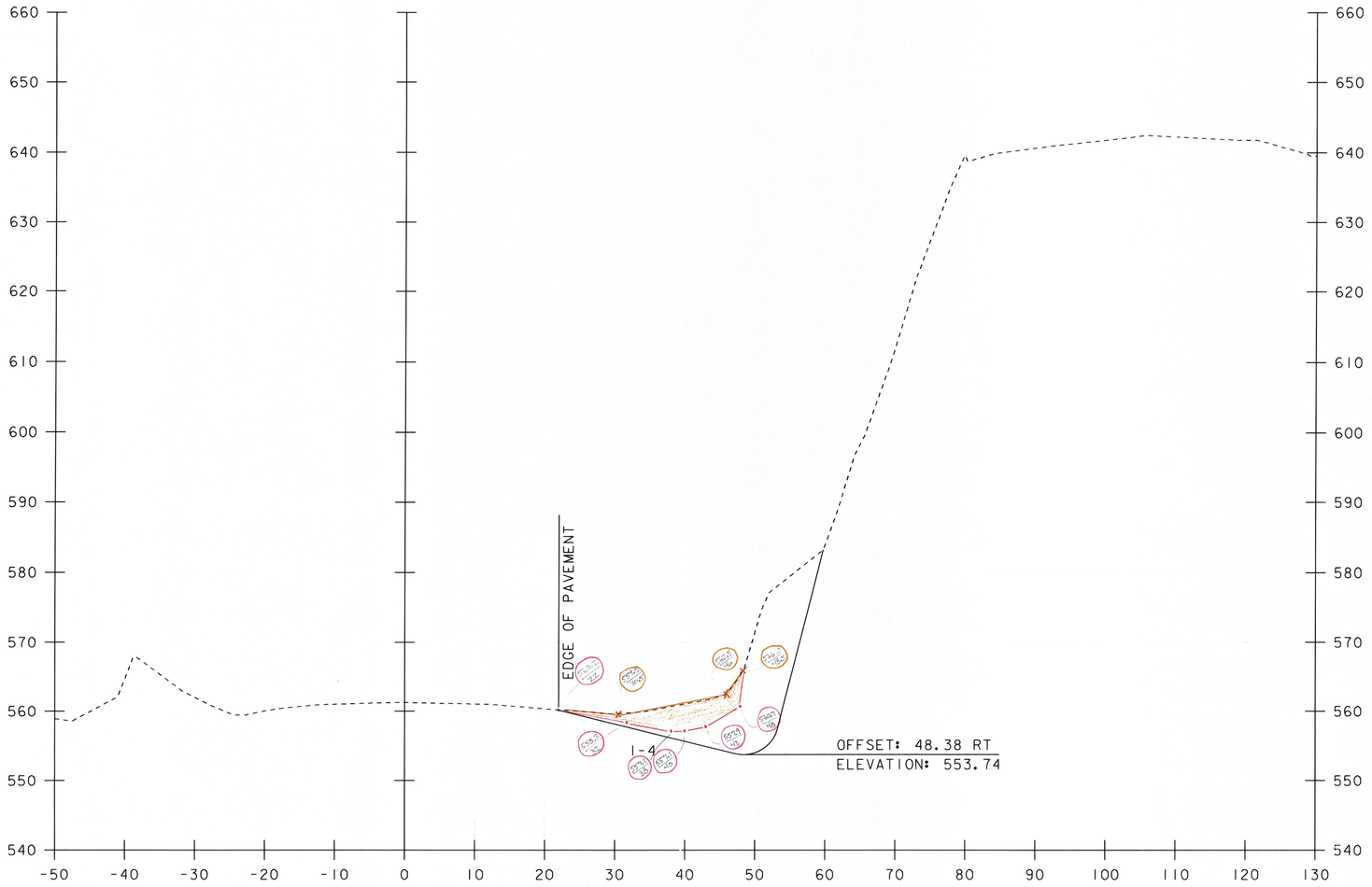
1854+50 ✓

0 10 20
SCALE IN FEET

STA. 1854+50 TO STA. 1854+50

MF 2-B-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07al58/Design/d07al58xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 27	SHEET 53 OF 78



1855+00

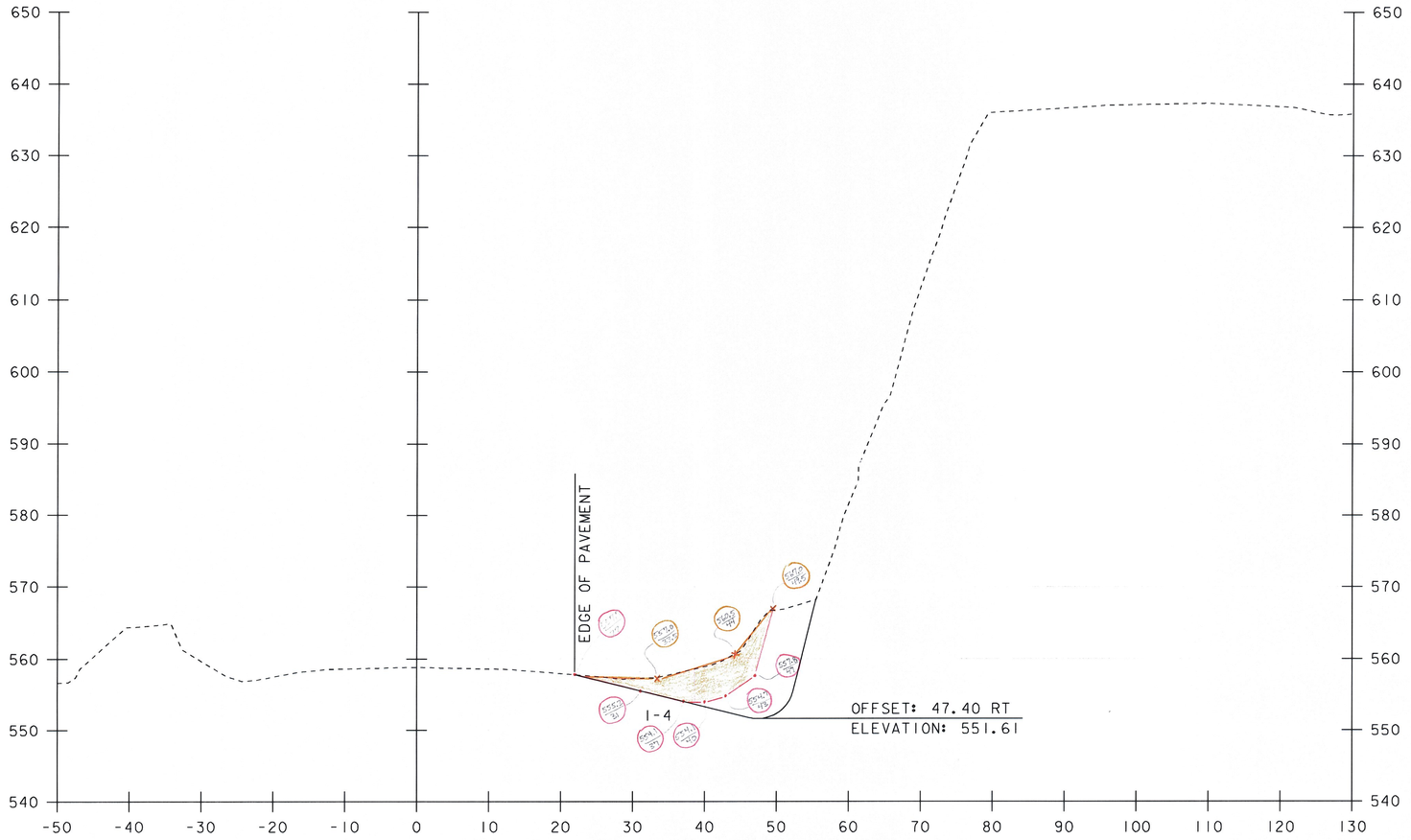
0 10 20
SCALE IN FEET

STA. 1855+00 TO STA. 1855+00

MP 2-8-11

RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 28	SHEET 54 OF 78



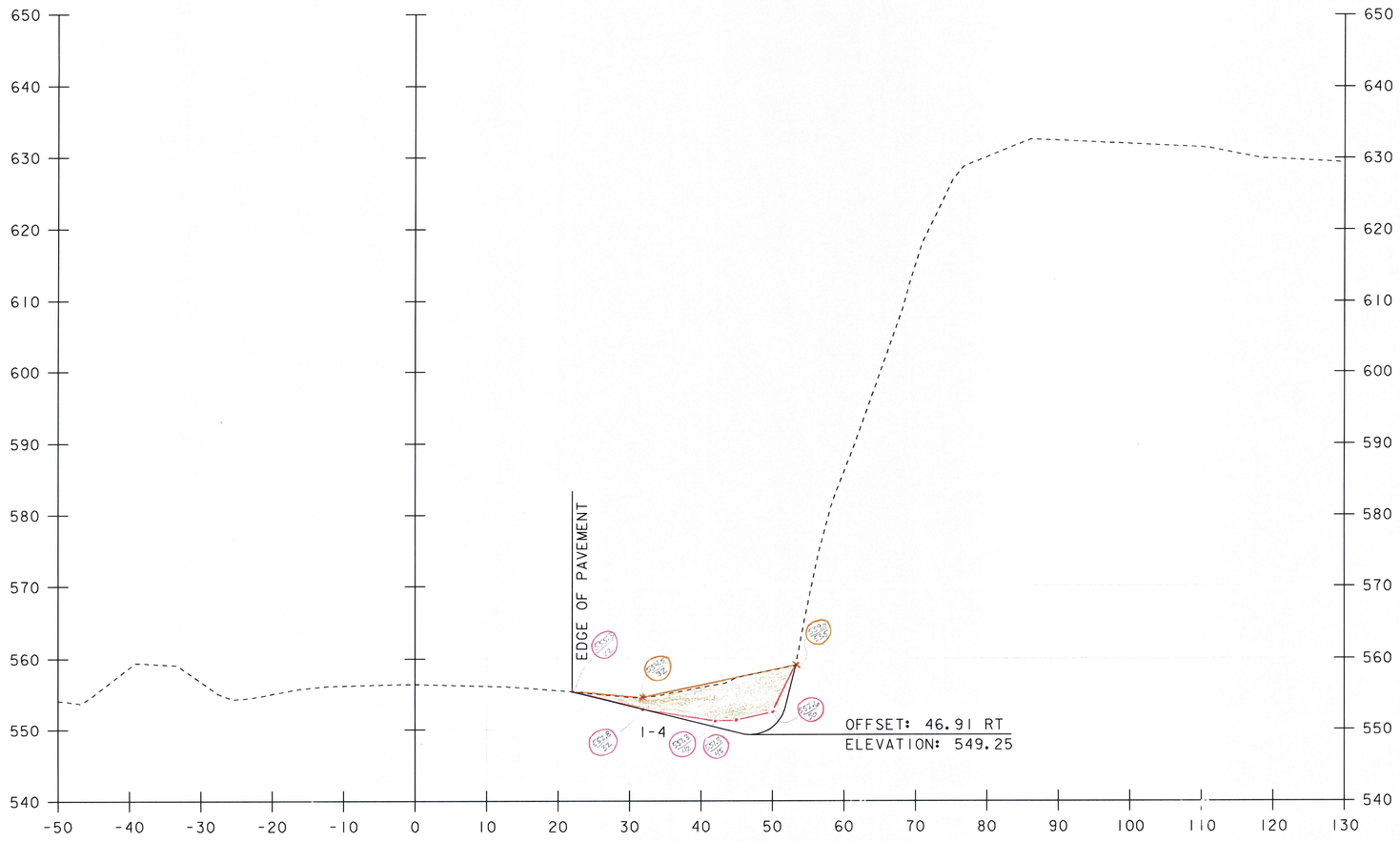
1855+50 ✓

0 10 20
SCALE IN FEET

STA. 1855+50 TO STA. 1855+50

MP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 29	SHEET 55 OF 78



1856+00 ✓

0 10 20
SCALE IN FEET

STA. 1856+00 TO STA. 1856+00

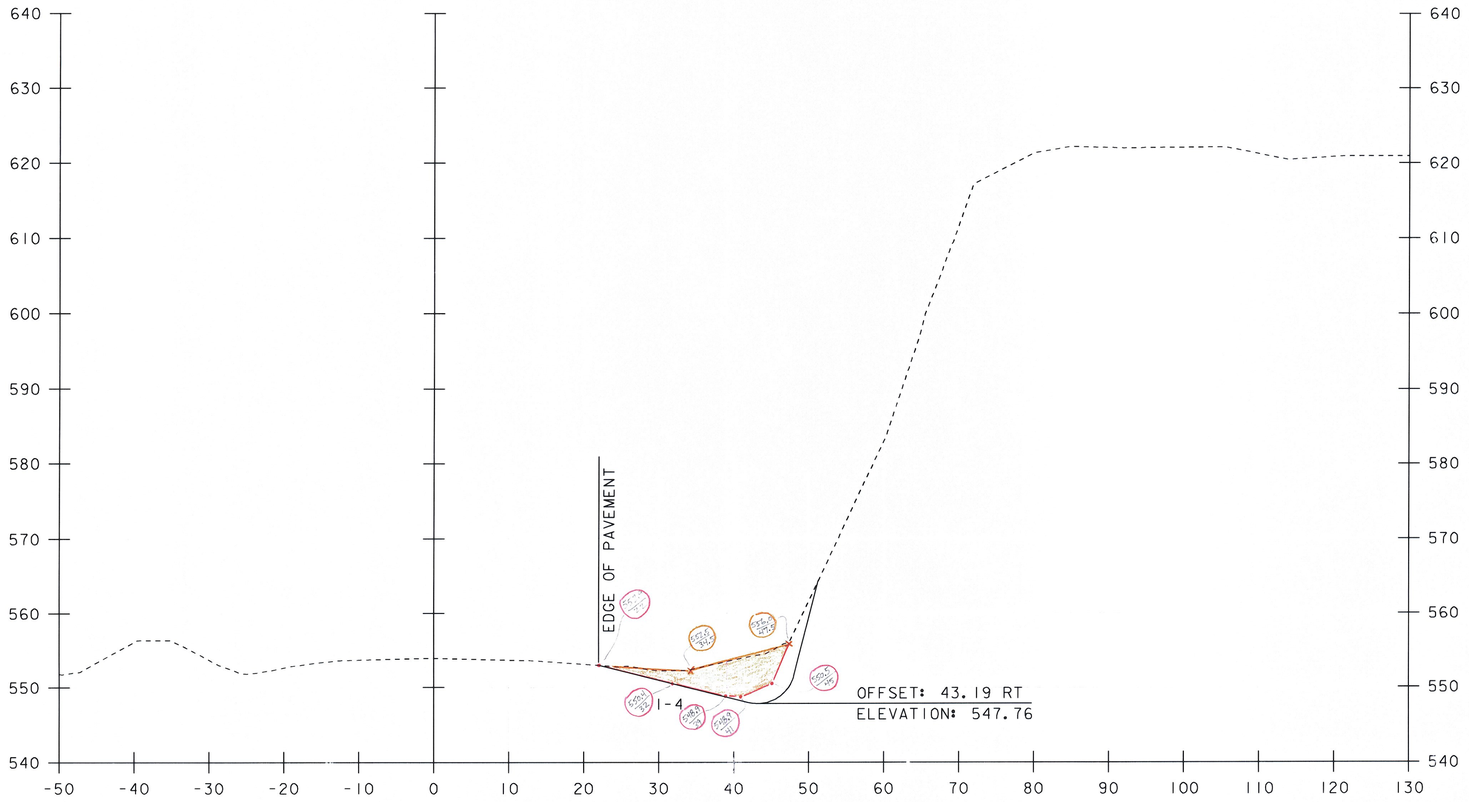
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 30

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 56 OF 78

PLP 2-8-11

RCA 3/16/11



1856+50

0 10 20
SCALE IN FEET

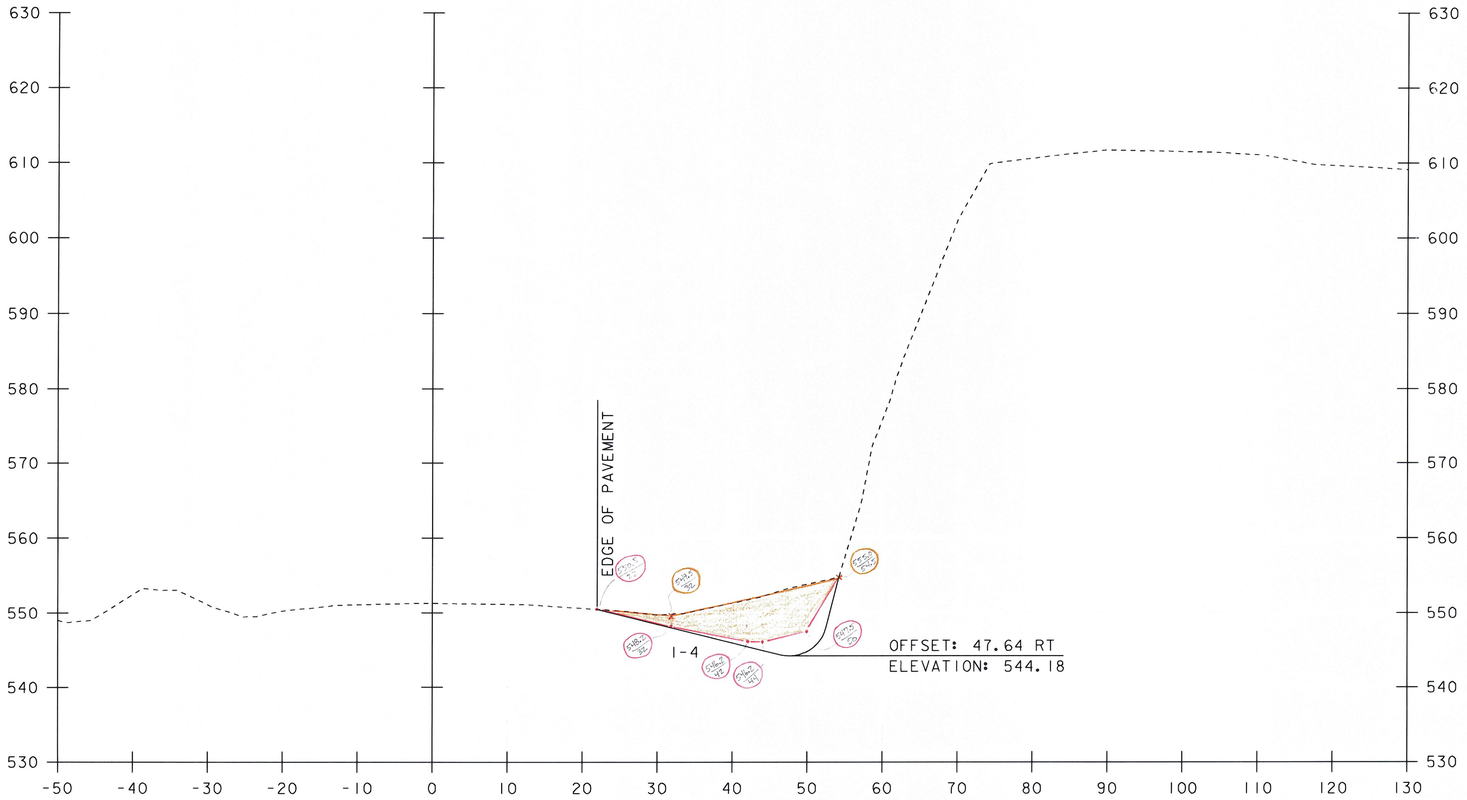
STA. 1856+50 TO STA. 1856+50

MP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 31

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 57 OF 78



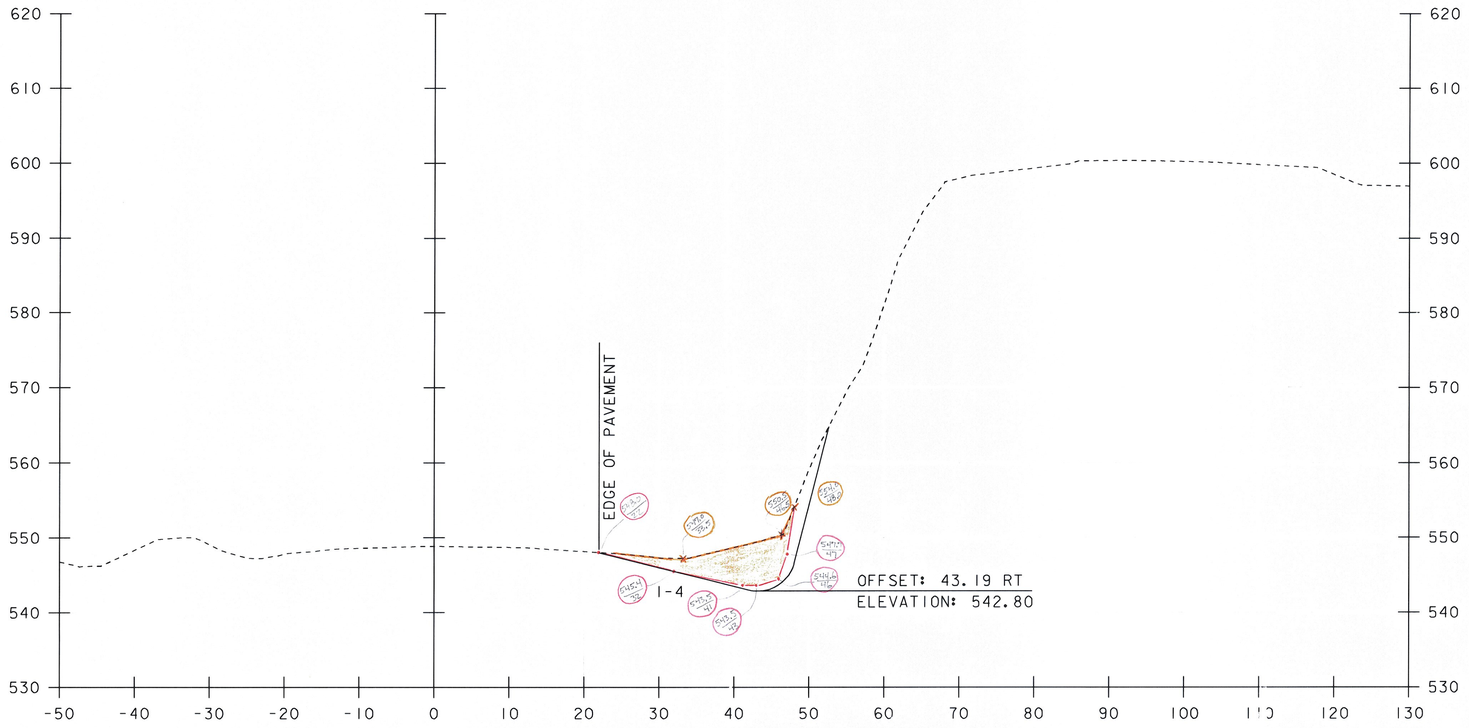
1857+00 ✓

0 10 20
SCALE IN FEET

STA. 1857+00 TO STA. 1857+00

AHP 2-8-11 RCD 3/16/11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 32	SHEET 58 OF 78



1857+50

0 10 20
SCALE IN FEET

STA. 1857+50 TO STA. 1857+50

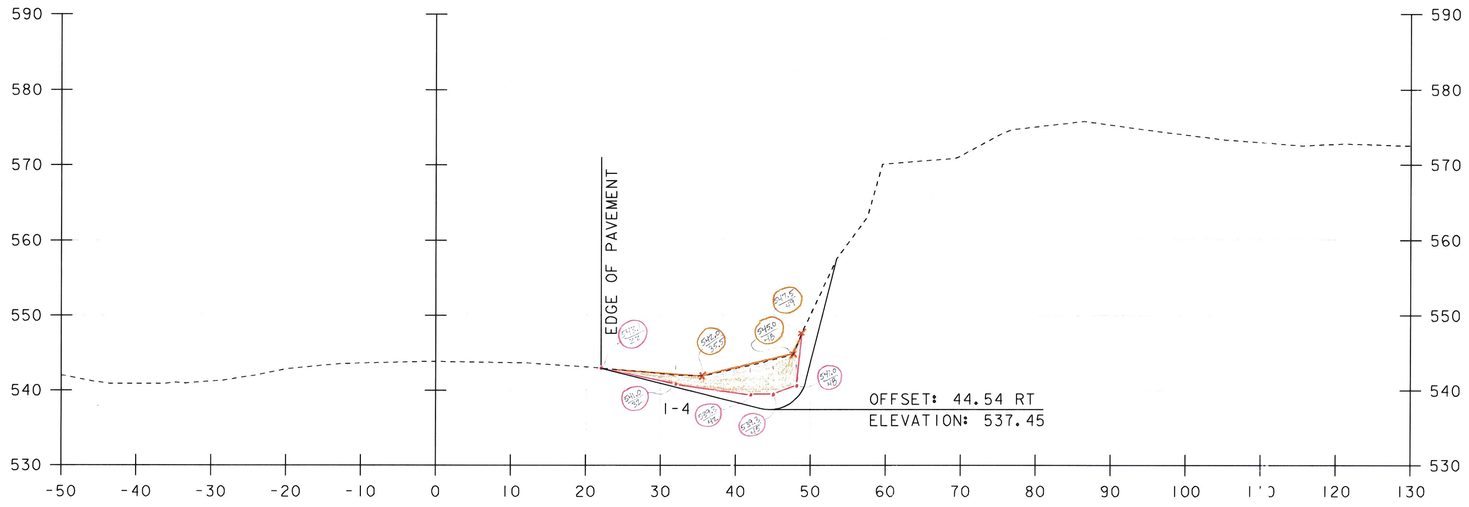
2-8-11

RCD 3/16/11

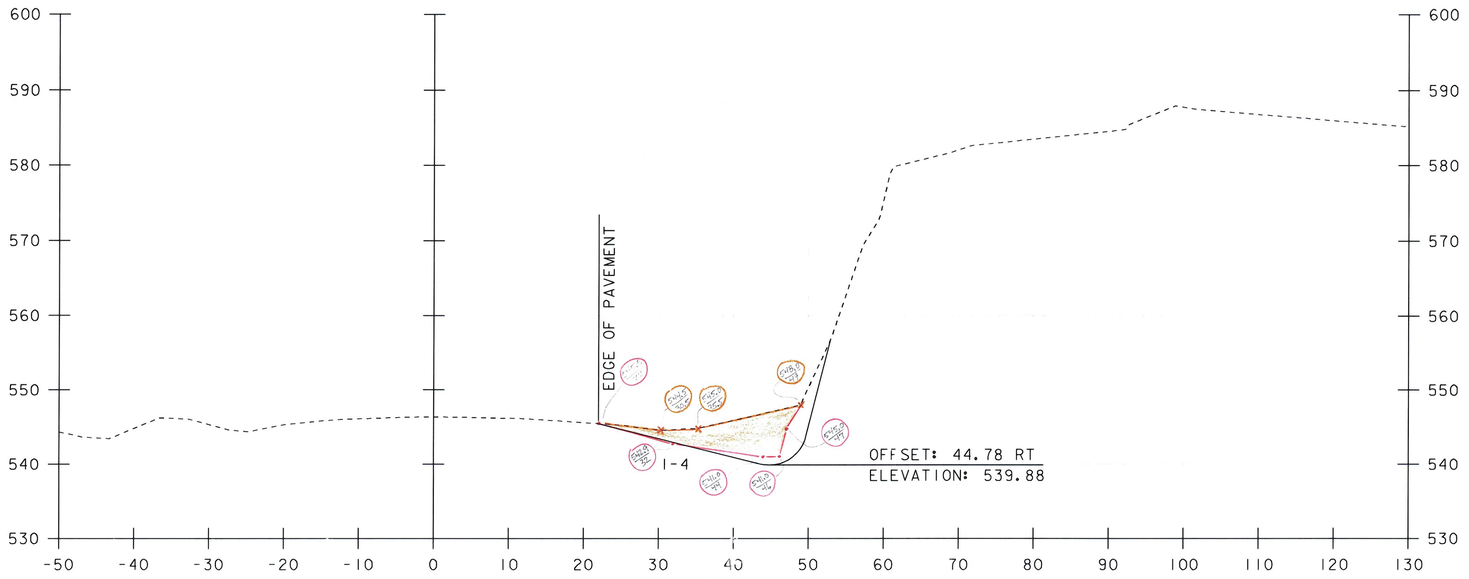
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 33

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 59 OF 78



1858+50✓



1858+00✓

0 10 20
SCALE IN FEET

STA. 1858+00 TO STA. 1858+50

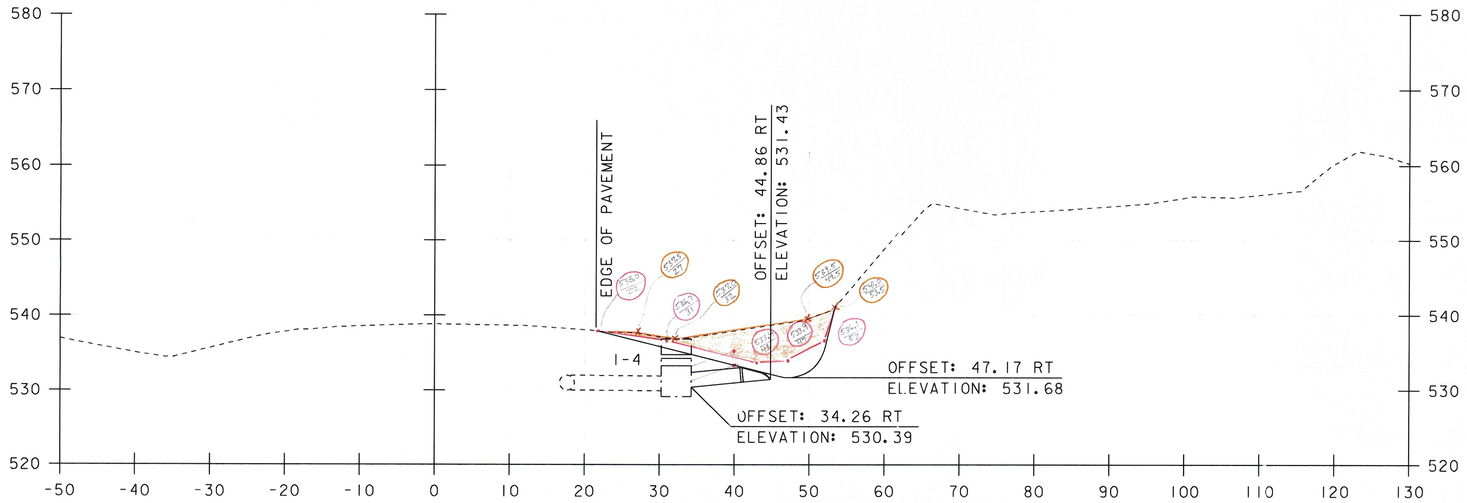
MLP 2-8-11

RCD 3/16/11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

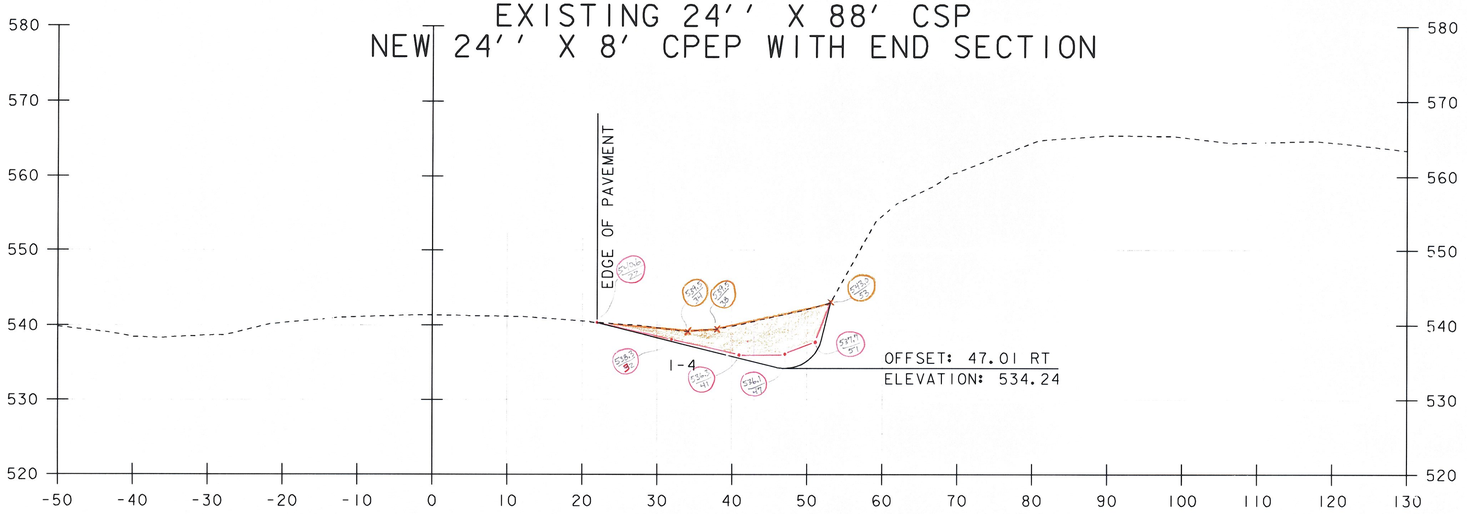
FILE NAME: 07al58/Design/d07al58xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 34

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 60 OF 78



1859+50 ✓

EXISTING 24'' X 88' CSP
NEW 24'' X 8' CPEP WITH END SECTION



1859+00 ✓

0 10 20
SCALE IN FEET

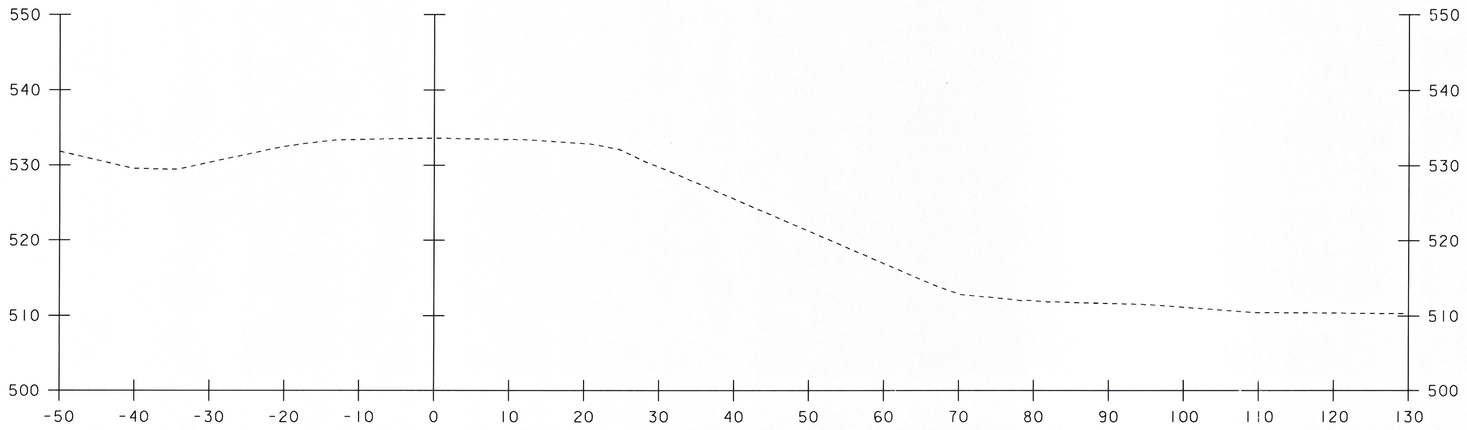
STA. 1859+00 TO STA. 1859+50

2-8-11 RCD 3/16/11

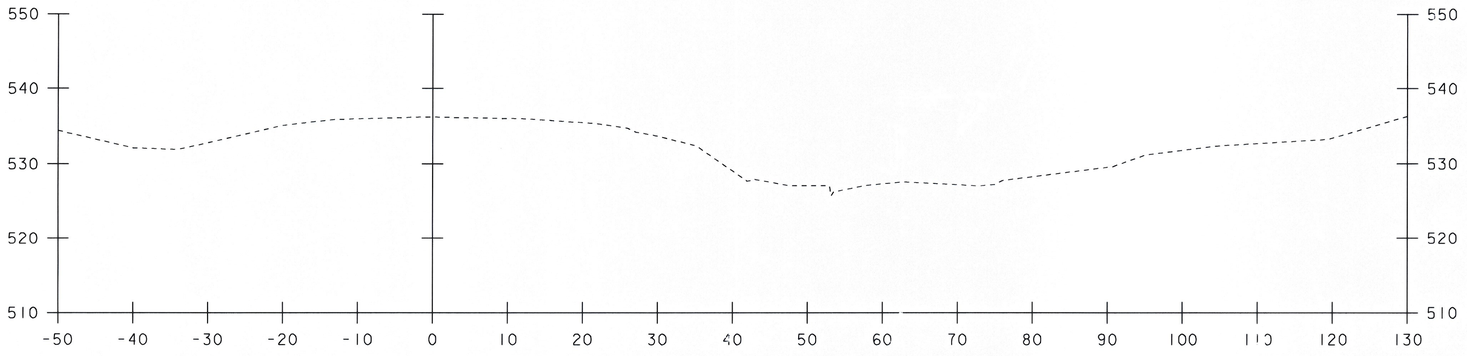
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 35

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 61 OF 78



1860+50



1860+00
END PROJECT

PMP
2-8-11

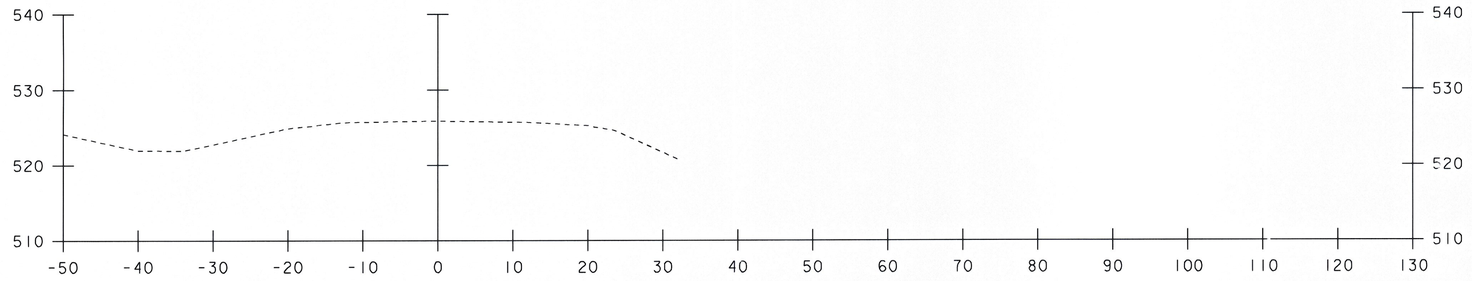
0 10 20
SCALE IN FEET

STA. 1860+00 TO STA. 1860+50

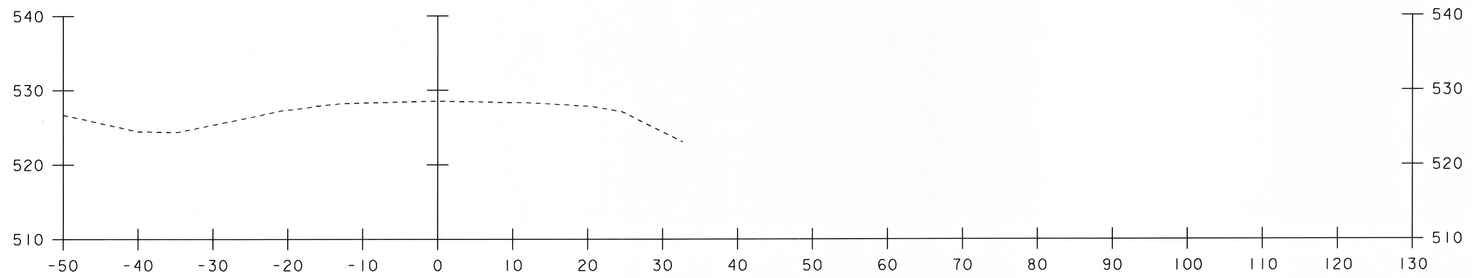
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 36

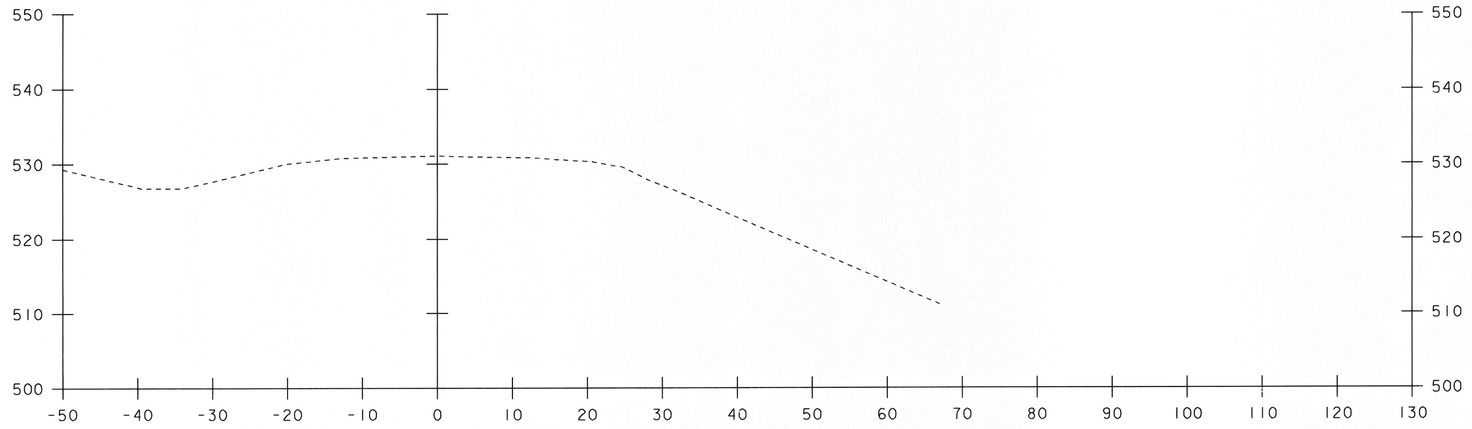
PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 62 OF 78



1862+00



1861+50



1861+00

0 10 20
SCALE IN FEET

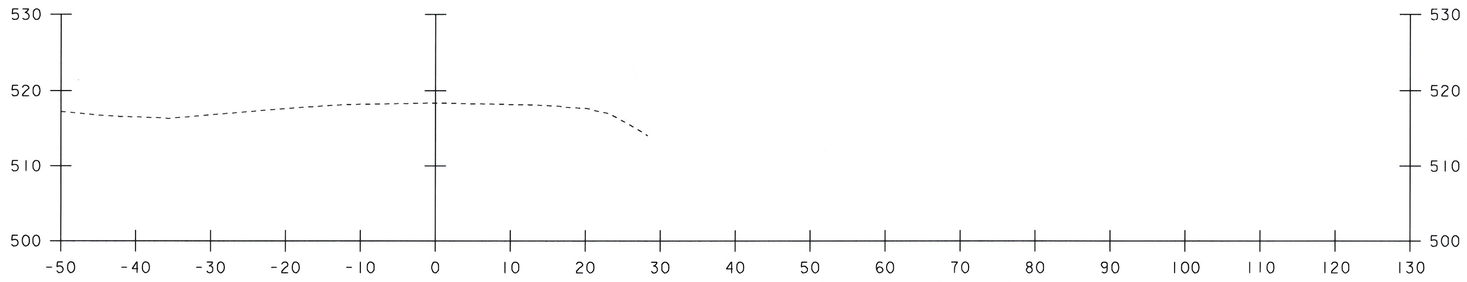
STA. 1861+00 TO STA. 1862+00

RLP 2-8-11

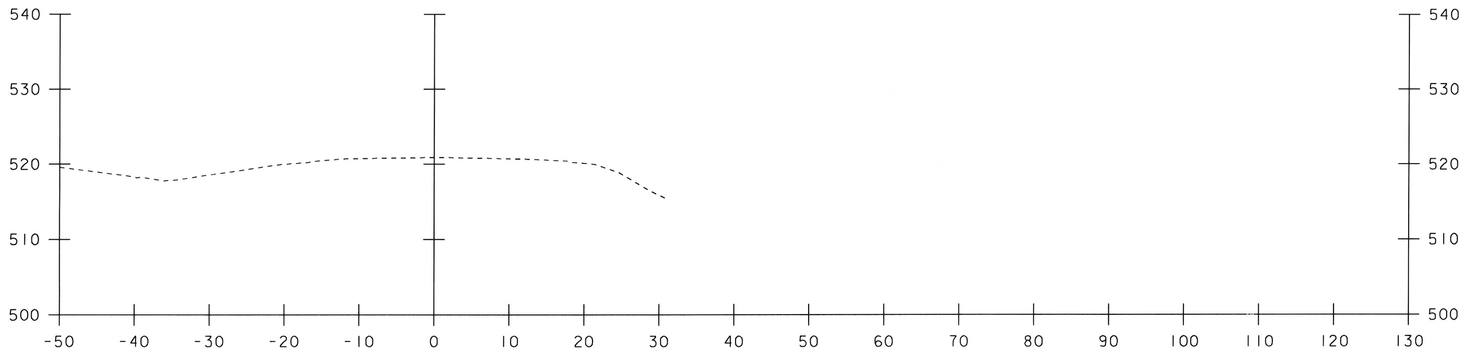
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 37

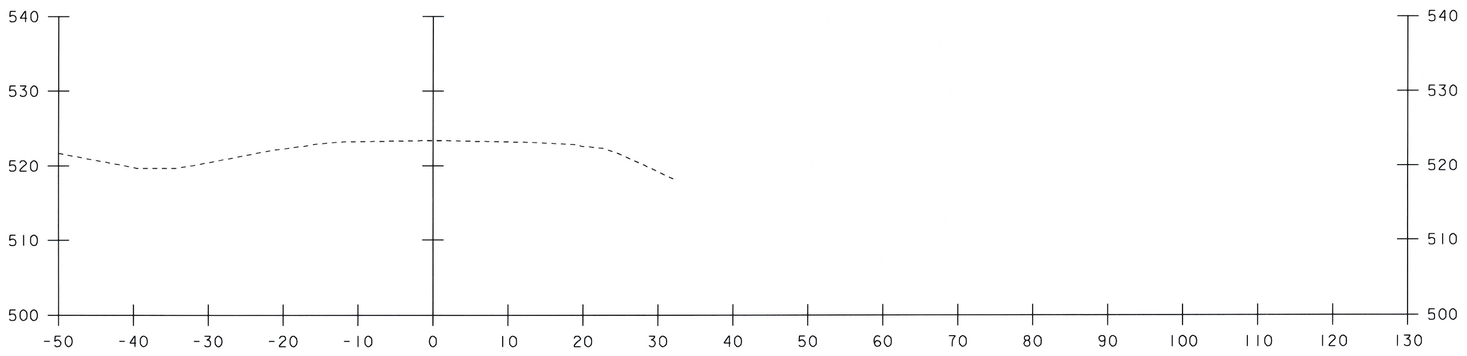
PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 63 OF 78



1863+50



1863+00



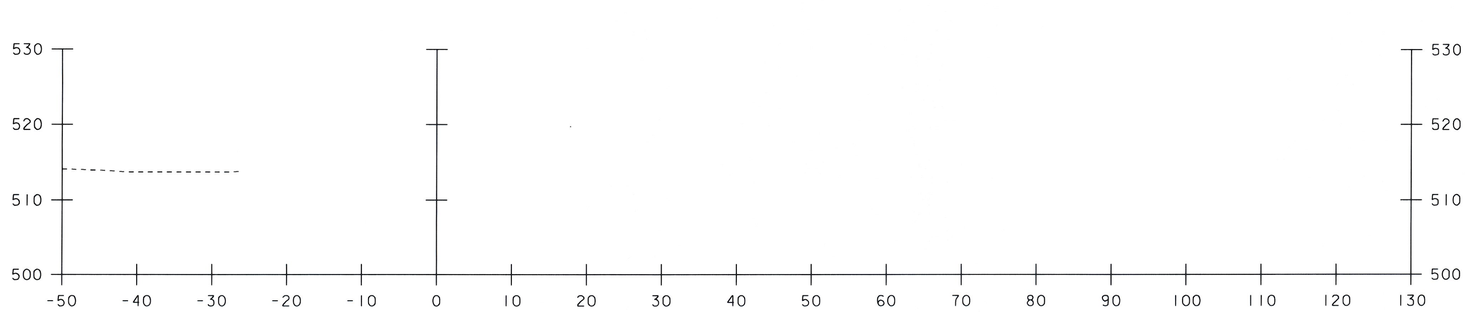
1862+50

0 10 20
SCALE IN FEET

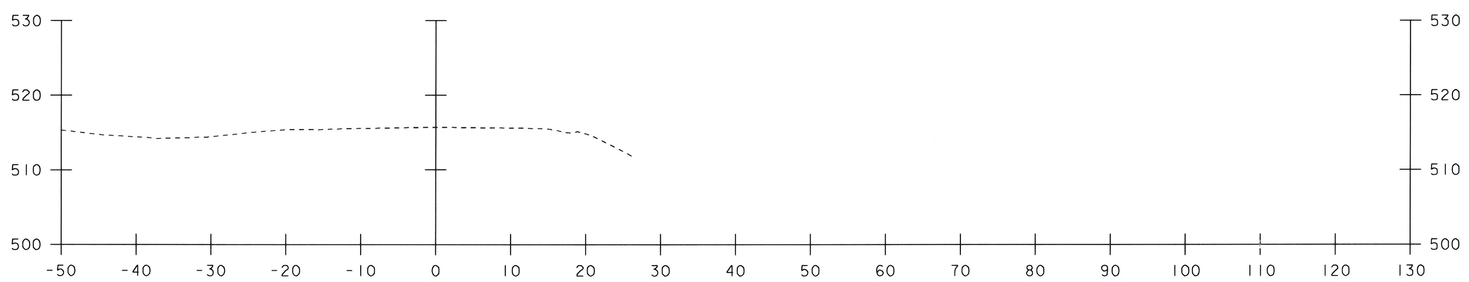
STA. 1862+50 TO STA. 1863+50

AMP
2-8-11

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158xs.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
CROSS SECTION SHEET 38	SHEET 64 OF 78



1864+24



1864+00

0 10 20
SCALE IN FEET

STA. 1864+00 TO STA. 1864+24

2-8-11

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158xs.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
CROSS SECTION SHEET 39

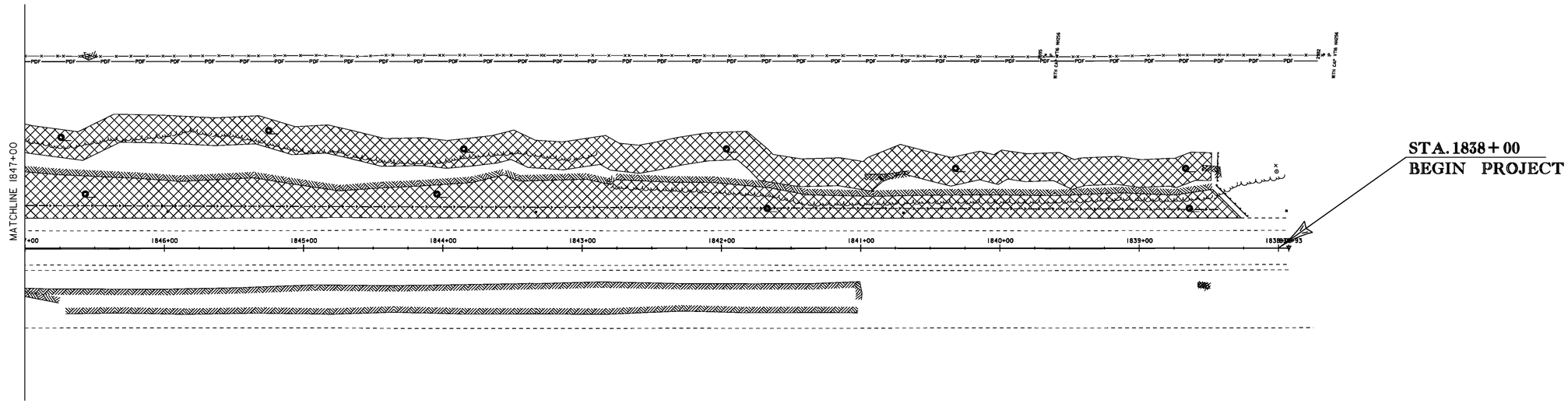
PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 65 OF 78

653.20 - TEMPORARY EROSION MATTING
STA. 1838+22RT TO STA. 1847+00 RT (DITCH) ⚠

653.55 - PROJECT DEMARCATION FENCE
STA. 1837+93 RT TO STA. 1847+00 RT

653.25 - TEMPORARY STONE CHECK DAM, TYPE I
STA. 1838+43 RT TO STA. 1847+00 RT (3 CHECK DAMS)

649.51 - GEOTEXTILE FOR SILT FENCE
STA. 1838+45 RT TO STA. 1838+45 RT (CREST OF LEDGE)
STA. 1838+24 RT TO STA. 1838+46 RT (DITCH)



N
VT STATE PLANE GRID

LEGEND

- CHECK DAMS
- SILT FENCE
- EROSION MATTING/LIMITS OF DISTURBANCE
- PDF PDF PDF PROJECT DEMARCATION FENCE

AREA OF DISTURBANCE:

CREST OF LEDGE: 17,572 SF; 0.403 ACRES
DITCH: 19,647 SF; 0.451 ACRES
SHEET TOTAL: 37,219 SF; 0.854 ACRES
PROJECT TOTAL: 98,187 SF; 2.253 ACRES

⚠ REVISED ITEM, EROSION MATTING FOR CREST OF LEDGE REMOVED 7/8/10

0 40 80
SCALE IN FEET

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158bdr.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
EPSC LAYOUT SHEET 1

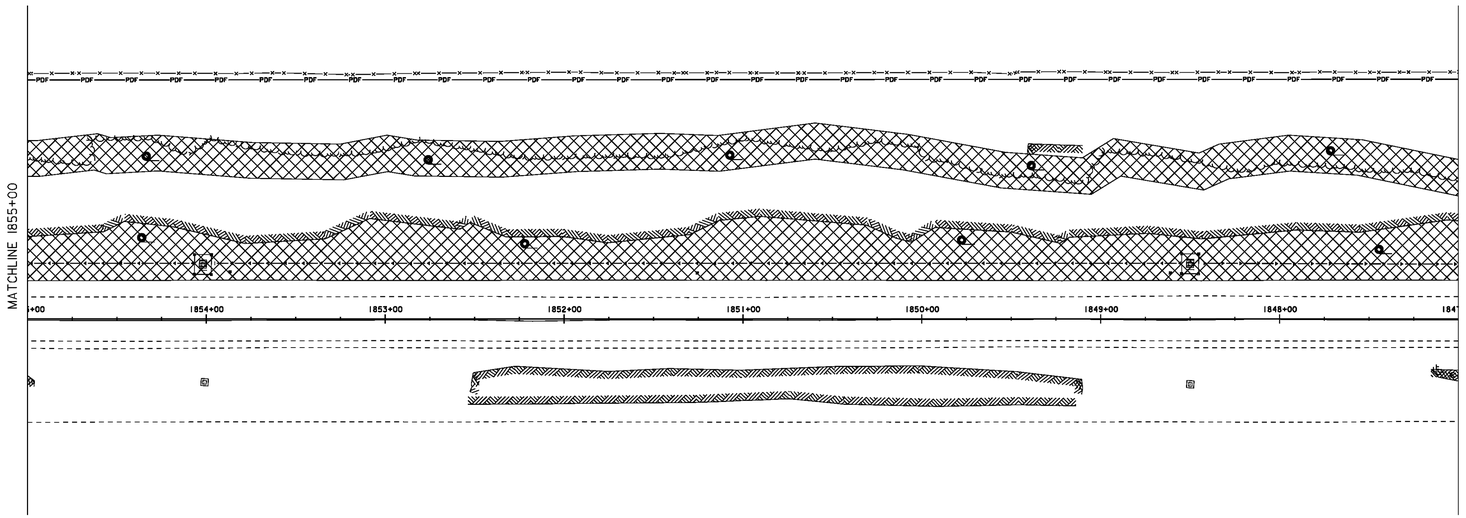
PLOT DATE: 08-JUL-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 66 OF 78

653.20 - TEMPORARY EROSION MATTING
STA. 1847+00 RT TO STA. 1855+00 RT (DITCH) ⚠

653.40 - INLET PROTECTION DEVICE, TYPE I
STA. 1848+50 RT
STA. 1854+02 RT

653.55 - PROJECT DEMARCATION FENCE
STA. 1847+00 RT TO STA. 1855+00 RT

653.25 - TEMPORARY STONE CHECK DAM, TYPE I
STA. 1847+00 RT TO STA. 1855+00 RT (12 CHECK DAMS)



N
VT STATE PLANE GRID

LEGEND

CHECK DAMS

EROSION MATTING/LIMITS OF DISTURBANCE

PROJECT DEMARCATION FENCE

INLET PROTECTION

AREA OF DISTURBANCE:

CREST OF LEDGE: 16,194 SF; 0.372 ACRES
DITCH: 21,865 SF; 0.501 ACRES
SHEET TOTAL: 38,059 SF; 0.873 ACRES
PROJECT TOTAL: 98,187 SF; 2.253 ACRES

⚠ REVISED ITEM, EROSION MATTING FOR CREST OF LEDGE REMOVED 7/8/10

0 40 80
SCALE IN FEET

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158bdr.dgn	PLOT DATE: 08-JUL-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
EPSC LAYOUT SHEET 2	SHEET 67 OF 78

653.20 - TEMPORARY EROSION MATTING
STA. 1855+00 RT TO STA. 1859+89 RT (DITCH) ⚠

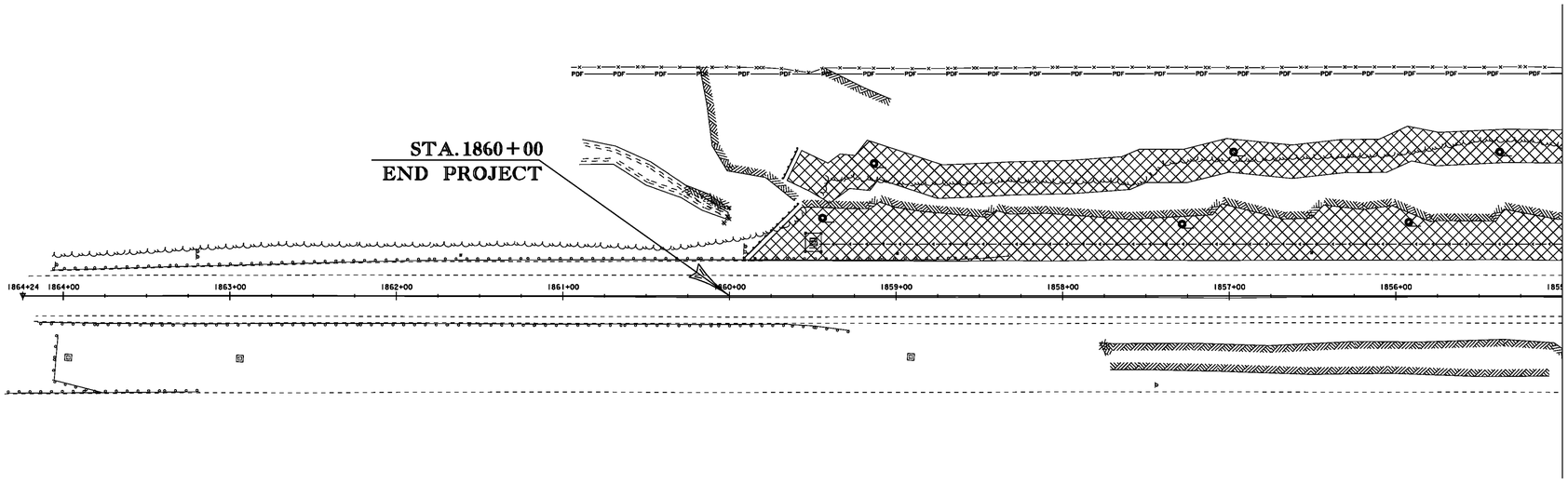
653.40 - INLET PROTECTION DEVICE, TYPE I
STA. 1859+50 RT

653.55 - PROJECT DEMARCATION FENCE
STA. 1855+00 RT TO STA. 1860+95 RT

653.25 - TEMPORARY STONE CHECK DAM, TYPE I
STA. 1855+00 RT TO STA. 1859+47 RT (11 CHECK DAMS)

649.51 - GEOTEXTILE FOR SILT FENCE
STA. 1859+58 RT TO STA. 1859+67 RT (CREST OF LEDGE)
STA. 1859+57 RT TO STA. 1859+90 RT (DITCH)

653.35 - VEHICLE TRACKING PAD
STA. 1858+80 RT TO STA. 1859+30 RT



N
VT STATE PLANE GRID

LEGEND

- CHECK DAMS
- SILT FENCE
- EROSION MATTING/LIMITS OF DISTURBANCE
- PDF PDF PDF PROJECT DEMARCATION FENCE
- INLET PROTECTION

AREA OF DISTURBANCE:

CREST OF LEDGE: 9,524 SF; 0.219 ACRES
DITCH: 13,385 SF; 0.307 ACRES
SHEET TOTAL: 22,909 SF; 0.526 ACRES
PROJECT TOTAL: 98,187 SF; 2.253 ACRES

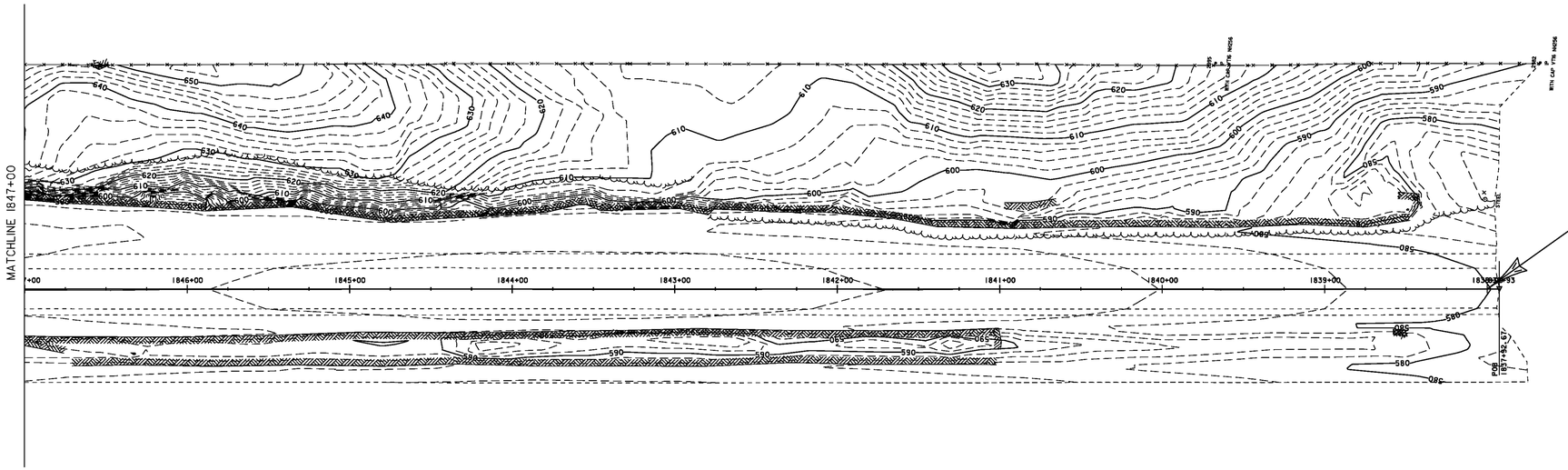
⚠ REVISED ITEM, EROSION MATTING FOR CREST OF LEDGE REMOVED 7/8/10

0 40 80
SCALE IN FEET

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158bdr.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
EPSC LAYOUT SHEET 3

PLOT DATE: 08-JUL-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 68 OF 78



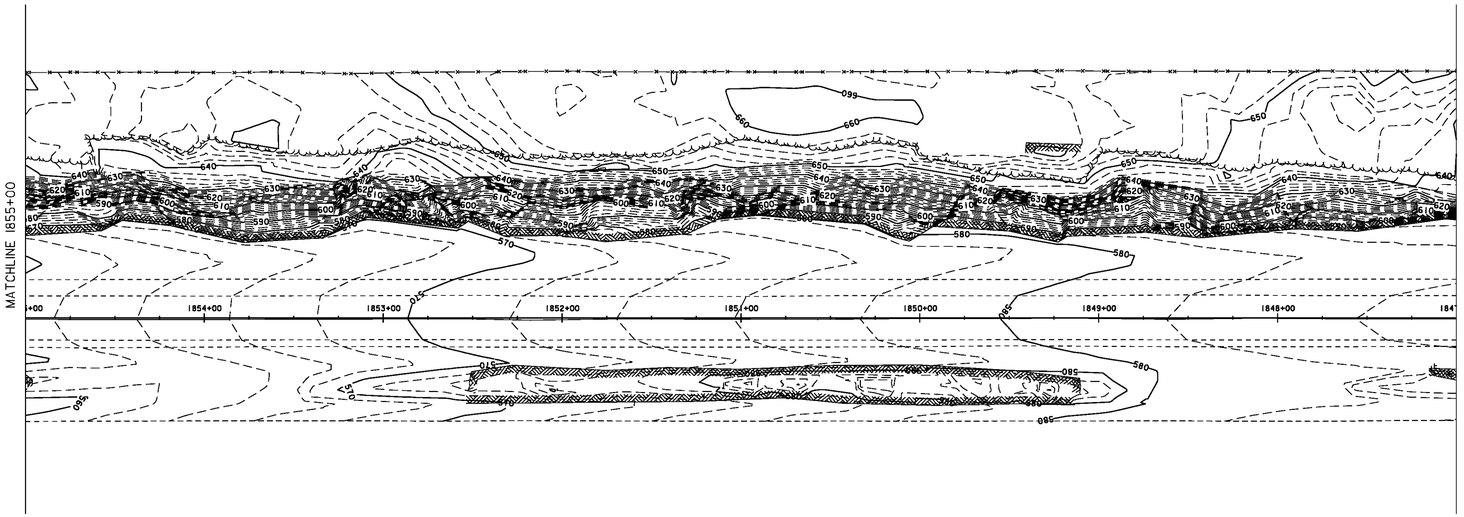
N

VT STATE PLANE GRID

0 40 80

SCALE IN FEET

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158bdr.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
EXISTING CONDITIONS LAYOUT SHEET 1	SHEET 69 OF 78



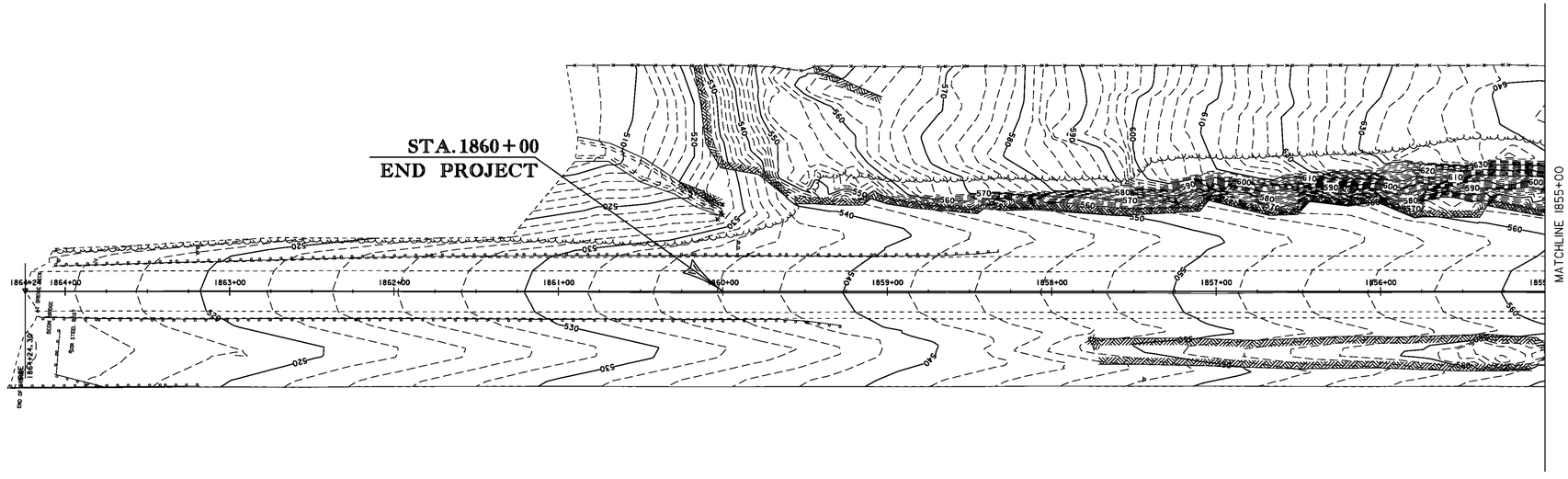
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VT STATE PLANE GRID

0 40 80

SCALE IN FEET

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158bdr.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
EXISTING CONDITIONS LAYOUT SHEET 2	SHEET 70 OF 78



N

VT STATE PLANE GRID

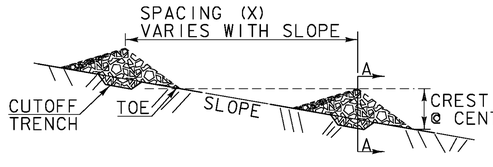
0 40 80

SCALE IN FEET

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(57)	
FILE NAME: 07a158/Design/d07a158bdr.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
EXISTING CONDITIONS LAYOUT SHEET 3	SHEET 71 OF 78

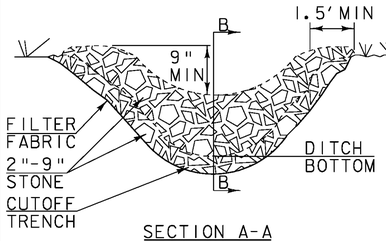
SYMBOL

NOT TO SCALE

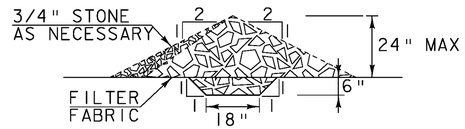


PROFILE

$$X=\frac{H\,(ft)}{SLOPE\,(ft/ft)}$$



SECTION A-A



SECTION B-B

CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OFTHE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

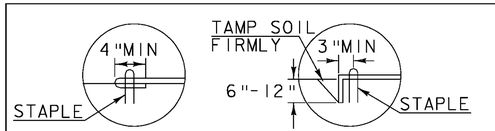
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I(PAY ITEM 653.25)

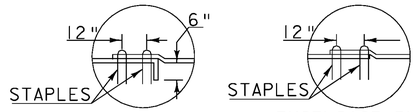
REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF

SYMBOL

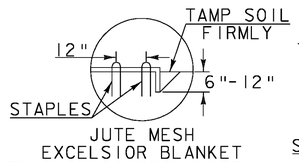
NOT TO SCALE



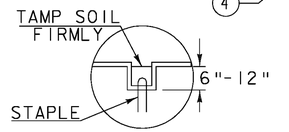
DETAIL 1 TERMINAL FOLD



DETAIL 2 JUNCTION SLOT

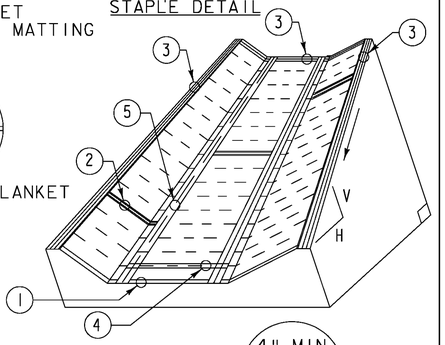


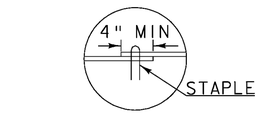
DETAIL 3 ANCHOR SLOT



DETAIL 4 CHECK SLOT

1"MIN
6"-12"
STAPLE DETAIL





DETAIL 5 LAP JOINT

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.

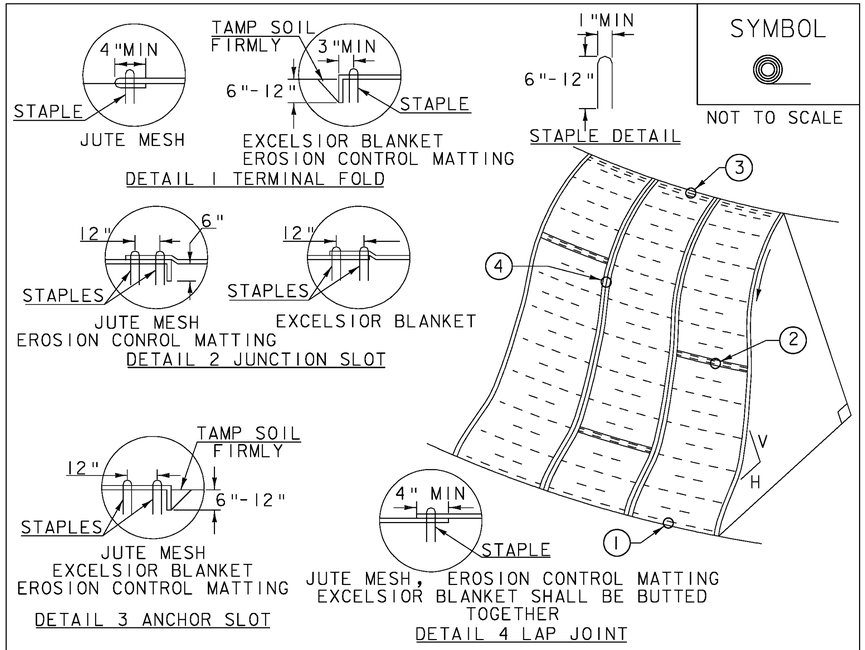
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) ~~OR PERMANENT EROSION MATTING (PAY ITEM 653.21)~~.

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158ero.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
EPSC DETAIL SHEET 1

PLOT DATE: 01-JUN-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 72 OF 78



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

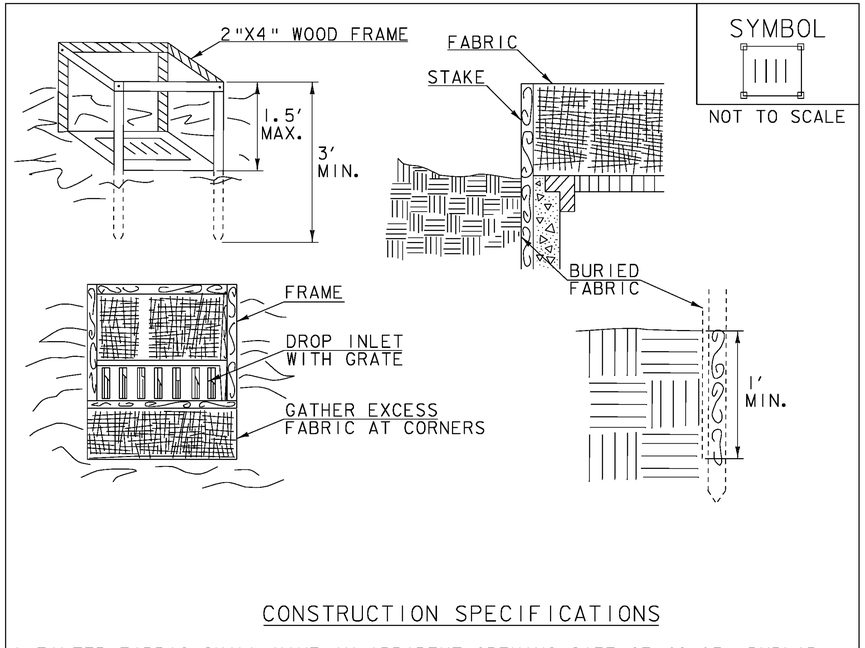
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 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



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN APPARENT OPENING SIZE OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3'.
4. SPACE STAKES EVENLY AROUND INLET 3' APART AND DRIVE A MINIMUM 18" DEEP. SPANS GREATER THAN 3' MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1' MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
7. MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FILTER FABRIC DROP INLET PROTECTION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

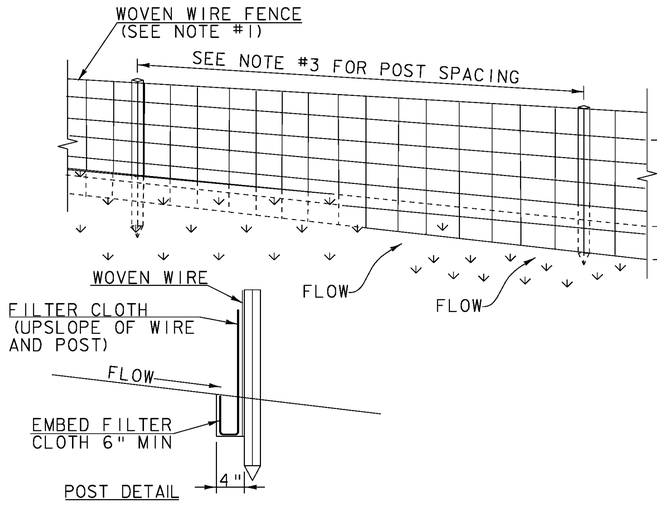
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 7, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158ero.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
EPSC DETAIL SHEET 2

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 73 OF 78



SYMBOL

SILT FENCE

SILT FENCE WOVEN WIRE

NOT TO SCALE

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, MIRAFI100X, 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.

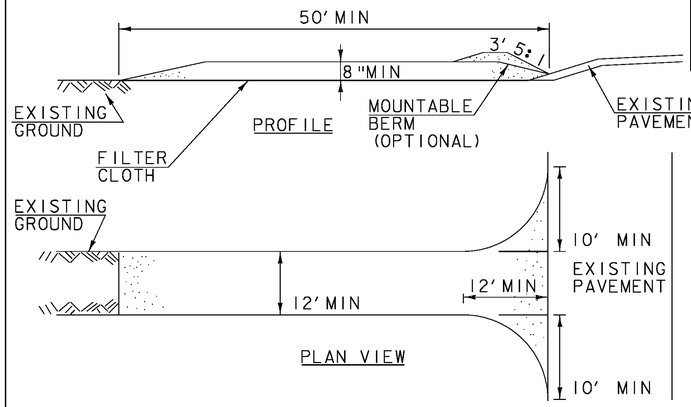
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED CONSTRUCTION ENTRANCE

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 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(57)

FILE NAME: 07a158/Design/d07a158ero.dgn
PROJECT LEADER: K. ROBIE
DESIGNED BY: P. PELOQUIN
EPSC DETAIL SHEET 3

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 74 OF 78

CONSTRUCTION GUIDA

1. RURAL SEED MIX: USE AS INDICATED IN THE PLAN
   ESTABLISHED UPLAND (NON WETLAND) AREAS DISTU

2. URBAN SEED MIX: USE AS INDICATED IN THE PLAN
   ESTABLISHED LAWN AREAS DISTURBED BY THE CONT

3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CO
   WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED

4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATE
   DIRECTED BY THE ENGINEER

5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT
   ACHIEVE 90% GROUND COVER OR AS DIRECTED BY T

6. TOPSOIL: TO BE USED WITH SEED AS INDICATED
   DIRECTED BY THE ENGINEER.

7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN AB
   AND THE TYPE OF HYDROSEED WILL ULTIMATELY D
   TYPES OF SOIL AMENDMENTS TO BE APPLIED

8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZE
   TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTE
   GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANSCAPE MAUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL OF EXPOSED LEDGE AT IDENTIFIED LOCATIONS FOR SAFETY ENHANCEMENTS.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 2.25 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST TWO CONSTRUCTION SEASONS.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE AREA IS MODERATELY MOUNTAINOUS THAT IS MOSTLY WOODED WITH OCCASIONAL OPEN AREAS. THERE IS A RESIDENCE ON THE EAST SIDE OF THE PROJECT, AND A FEW HOUSES AND COMMERCIAL BUILDINGS DOWN SLOPE TO THE EAST ON US ROUTE 5.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE ARE NO IDENTIFIABLE WATER SOURCES ON THE PROJECT SITE. THE CONNECTICUT RIVER IS APPROXIMATELY 2500' TO THE EAST.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD AND SOFTWOOD TREES ALONG WITH UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT DIRECTLY ALONG THE TOP OF THE LEDGE PLANNED TO BE REMOVED, AND THE DITCH LINE BETWEEN THE LEDGE AND PAVEMENT. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDHAM, VERMONT. SOILS ON THE PROJECT SITE ARE MACOMBER-TACONIC COMPLEX, VERY ROCKY, 25% TO 70% SLOPES, "K FACTOR" = 0.24. THE SOIL IS CONSIDERED MODERATELY ERODIBLE DUE TO SIGNIFICANT SLOPES.
NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL: 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: NO
WETLANDS: NO

1.2.6 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED FOREST WITH STEEP SLOPES AT THE PROJECT SITE. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES. IF THIS IS THE CASE, IT SHOULD BE MINIMAL.

1.3 RISK EVALUATION

THIS PROJECT FALLS UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS. ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

(REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING.)

1.4.1 MARK SITE BOUNDARIES
PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

1.4.2 LIMIT DISTURBANCE AREA
EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

1.4.3 STABILIZE CONSTRUCTION EXIT
STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED AS NECESSARY.

1.4.4 INSTALL SILT FENCE
SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

1.4.5 DIVERT UPLAND RUNOFF
SWALE (STORM WATER FROM STREET COLLECTIONS DRAINAGE SYSTEM)

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHECK DAMS SHALL BE UTILIZED AS NECESSARY.

1.4.7 CONSTRUCT PERMANENT CONTROLS
TYPE I STONE FOR SLOPE LINING AND CHANNEL PROTECTION
SEED AND MULCH
DRAINAGE INLETS AND PIPING

1.4.8 STABILIZE EXPOSED SOILS
SEED AND MULCH
EROSION MATTING

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.
SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION.

1.4.9 WINTER STABILIZATION
VARIOUS MEASURES SPECIFIC TO WINTER (SEE LOW RISK HANDBOOK)

1.4.10 STABILIZE SOIL AT FINAL GRADE
SEED AND MULCH
EROSION MATTING

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

1.4.11 DE-WATERING ACTIVITIES
NOT APPLICABLE.

1.4.12 INSPECT YOUR SITE
INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

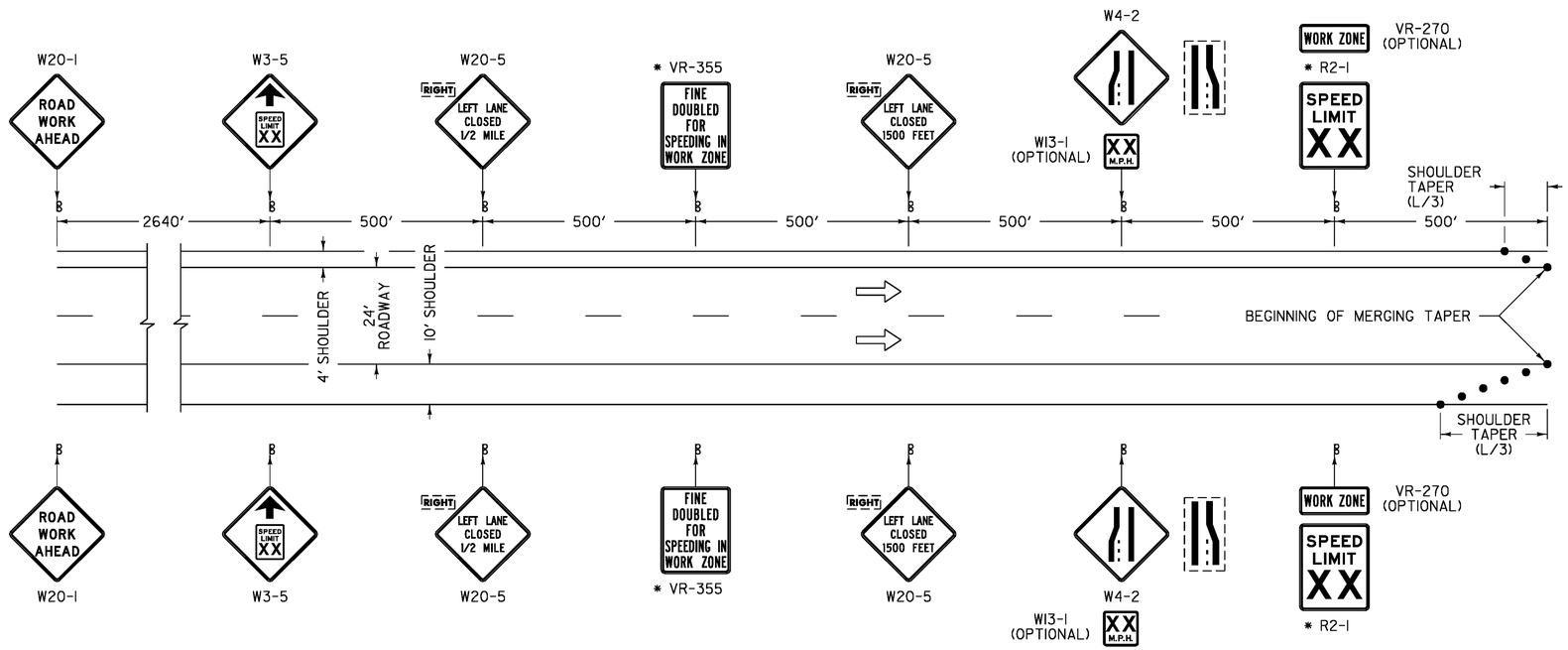
1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES

PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)
FILE NAME: 07a158/Design/d07a158ero.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
EPSC NARRATIVE	SHEET 76 OF 78



LEGEND

⇨ FLOW OF TRAFFIC

● RETROREFLECTIVE PLASTIC DRUM

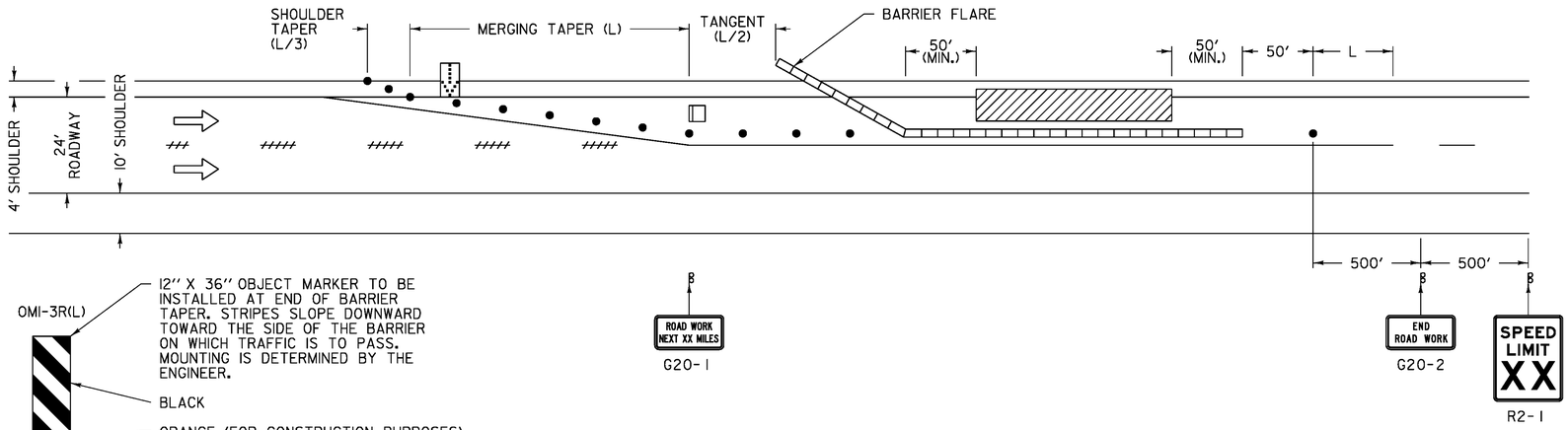
* THESE SIGNS, WITH SOLID SUBSTRATE, SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE III.

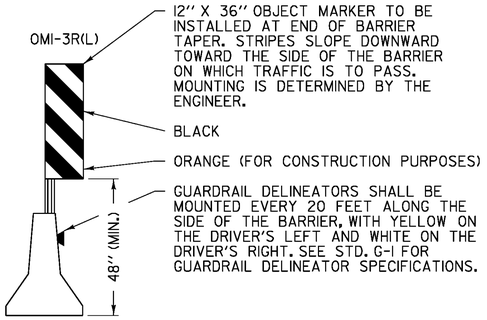
GENERAL NOTES:

1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" (SHS) BOOK PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
2. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
3. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
4. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
5. POST MOUNTED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET BEHIND GUARDRAIL.
6. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A MINIMUM OF ONE FOOT ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
7. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED, STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
8. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
9. THE "SPEED LIMIT XX" (R2-1) SIGN SHALL ONLY BE USED IF A TEMPORARY SPEED LIMIT CERTIFICATE HAS BEEN APPROVED. THE "SPEED LIMIT XX" (R2-1) AND OTHER RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN WORK IS NOT IN PROGRESS AND ROADWAY IS NOT RESTRICTED.
10. "FINE DOUBLE FOR SPEEDING IN WORK ZONE" (VR-355) SHALL ONLY BE USED IF TEMPORARY SPEED LIMIT CERTIFICATE HAS BEEN APPROVED.
11. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED.
12. FOR SHORT TERM PROJECTS (THREE DAYS OR LESS) WITH NO OFFICIAL TEMPORARY SPEED LIMIT, THE "SPEED LIMIT XX" (R2-1) AND "REDUCED SPEED LIMIT AHEAD" (W3-5) SIGNS MAY BE SUBSTITUTED WITH ADVISORY SPEED PLAQUES (WI3-1) MOUNTED AS SUPPLEMENTAL SIGNS BELOW THE LANE ENDS MERGE (W4-2) SIGNS.
13. FOR A LONG TERM CLOSURE (GREATER THAN THREE DAYS) WITH A NON-MOVING OPERATION, ALL SIGNS SHALL BE POST MOUNTED.
14. FOR A LONG TERM CLOSURE WITH A MOVING OPERATION, THE "ROAD WORK AHEAD" (W20-1) SIGN SHALL BE POST MOUNTED. THE REMAINING SIGNS MAY BE PORTABLE AND SHALL MOVE AS THE WORK AREA CHANGES.
15. FOR A SHORT TERM PROJECT (THREE DAYS OR LESS), SIGNS MAY BE POST MOUNTED OR PORTABLE.

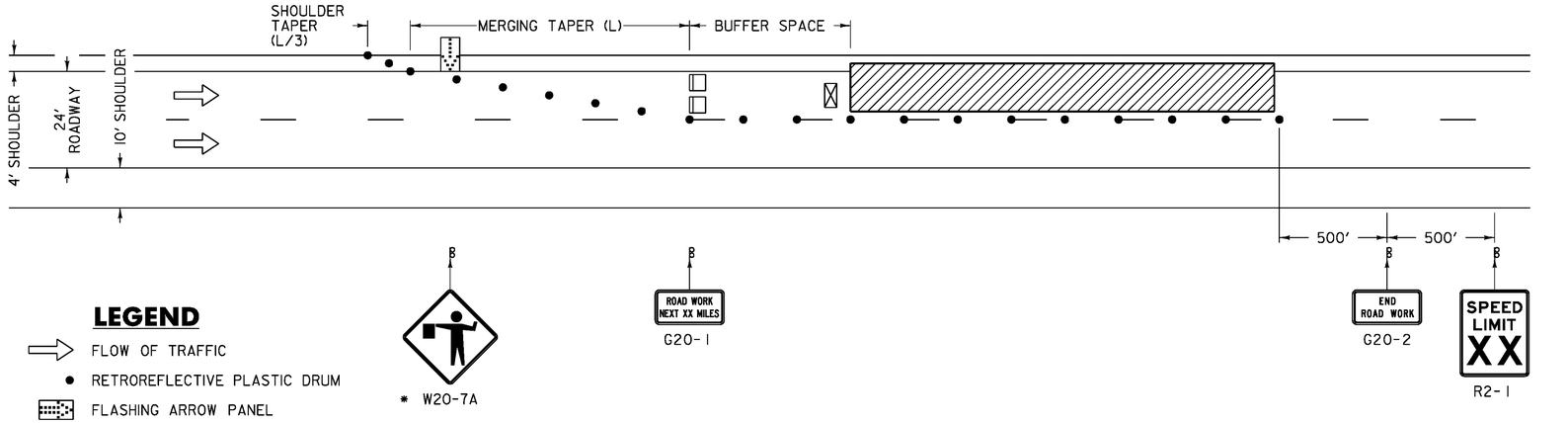
PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(57)

FILE NAME: 07a158/Design/d07a158frm.dgn	PLOT DATE: 26-MAY-2010
PROJECT LEADER: K. ROBIE	DRAWN BY: P. PELOQUIN
DESIGNED BY: P. PELOQUIN	CHECKED BY: S. MENARD
TRAFFIC CONTROL SHEET 1	SHEET 77 OF 78





ONE LANE CLOSED WITH TEMPORARY BARRIER PROTECTION



LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- PAVEMENT MARKING REMOVAL
- TEMPORARY BARRIER
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR

ONE LANE CLOSED

* WHEN FLAGGER IS USED; TO BE REMOVED IF FLAGGING STOPS FOR 15 MINUTES OR MORE.

NOTES:

1. THE EXISTING TRAVEL LANE WIDTH SHOULD BE MAINTAINED IF POSSIBLE.
2. TEMPORARY TAPE EDGELINES SHALL BE APPLIED AND SHALL MAINTAIN A ONE FOOT MINIMUM DISTANCE FROM THE BARRIER WITH TWO FEET BEING DESIRABLE.
3. LINE STRIPING TARGETS (LST'S) SHALL BE PLACED TO THE OUTSIDE OF THE TEMPORARY TAPE AT 20 FOOT SPACING.
4. IF THE BARRIER IS PLACED SUCH THAT THE EXISTING LANE NEEDS TO BE MOVED ONTO THE SHOULDER THEN THE EDGELINE SHALL BE REMOVED AND TEMPORARY TAPE SHALL BE USED TO PROVIDE A 12 FOOT LANE.
5. THE END OF THE BARRIER FACING APPROACHING TRAFFIC SHALL MEET THE FOLLOWING REQUIREMENTS:
   - A. WHEN NO GUARDRAIL IS PRESENT THEN A 30 FOOT OFFSET FROM THE EDGE OF TRAVELED WAY SHOULD BE USED.
   - B. WHEN NO GUARDRAIL IS PRESENT AND A 30 FOOT OFFSET CANNOT BE ATTAINED THEN AN ENERGY ABSORPTION ATTENUATOR SHALL BE USED.
   - C. IF GUARDRAIL IS PRESENT THEN THE GUARDRAIL SHALL BE BROKEN AND THE BARRIER TAPERED TO A POINT OUTSIDE THE DEFLECTION DISTANCE OF THE GUARDRAIL.

GENERAL NOTES:

1. FOR LONG TERM CLOSURES, DASHED LANE LINE REMOVAL SHALL BEGIN 750 FEET IN ADVANCE OF THE BEGINNING OF THE SHOULDER TAPER.
2. CHANNELIZING DEVICES OTHER THAN RETROREFLECTIVE PLASTIC DRUMS SHALL BE ALLOWED ALONG TANGENT SECTIONS AS LONG AS THEY CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ARE APPROVED BY THE ENGINEER. THE TYPE OF DEVICE SHALL BE CONSISTENT THROUGHOUT THE TANGENT SECTION.
3. THE NUMBER OF CHANNELIZING DEVICES, TYPE III BARRICADE AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR, CURVE, ETC.). WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
4. PLACE LAST CHANNELIZING DEVICE 100 FEET BEYOND THE ANTICIPATED WORK ZONE TERMINAL POINT EACH DAY OR 50 FEET BEYOND THE END OF BARRIER WHICHEVER APPLIES.
5. THE ARROW PANEL SHALL BE PLACED ON THE SHOULDER OF THE ROADWAY, AS CLOSE AS PRACTICAL TO THE BEGINNING OF THE MERGING TAPER.
6. THE "ROAD WORK NEXT XX MILES" SIGN (G20-1) SHALL BE INSTALLED IN ADVANCE OF TEMPORARY TRAFFIC CONTROL ZONES THAT ARE MORE THAN TWO MILES IN LENGTH, OR AS DIRECTED BY THE ENGINEER. DISTANCES SHALL BE STATED TO THE NEAREST WHOLE MILE.
7. TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
   L = WS, FOR POSTED SPEEDS OF 45 MPH OR GREATER.
   L = WS²/60 FOR POSTED SPEEDS OF 40 MPH OR LESS.
   L = MINIMUM LENGTH OF TAPER
   W = WIDTH OF OFFSET IN FEET (TYPICAL)
   S = POSTED SPEED IN MPH

POSTED SPEED (MPH)	TAPER LENGTHS (FT)		TANGENT W=12 FT (L/2)	BARRIER FLARE RATE (MINIMUM)	MINIMUM BUFFER SPACE LENGTH (FT)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)	
	SHOULDER W=10 FT (L/3)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤ 40	90	320	160	1:9	305	40	80
45	150	540	270	1:9	360	45	90
50	170	600	300	1:11	425	50	100
55	185	660	330	1:13	495	55	110
60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

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PROJECT LEADER: K. ROBIE
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TRAFFIC CONTROL SHEET 2

PLOT DATE: 26-MAY-2010
DRAWN BY: P. PELOQUIN
CHECKED BY: S. MENARD
SHEET 78 OF 78