STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT

TOWN OF POWNAL
COUNTY OF BENNINGTON
U.S. ROUTE 7 (F.A.P.)

BEGINNING AT A POINT ON US ROUTE 7 APPROXIMATELY 6.664 MILES NORTHERLY FROM THE VERMONT-MASSACHUSETTS STATE LINE AND PROCEEDING ALONG US ROUTE 7 NORTHERLY FOR APPROXIMATELY 0.473 MILES.

LENGTH OF ROADWAY = 2500 FT = 0.473 MILES
LENGTH OF BRIDGE = 0 FT = 0.000 MILES
LENGTH OF PROJECT = 2500 FT = 0.473 MILES

WORK TO BE PERFORMED ON THIS PROJECT INCLUDES GRADING, DRAINAGE, SUBBASE AND PAVEMENT GENERALLY ON THE ALIGNMENT OF EXISTING U.S. ROUTE 7.

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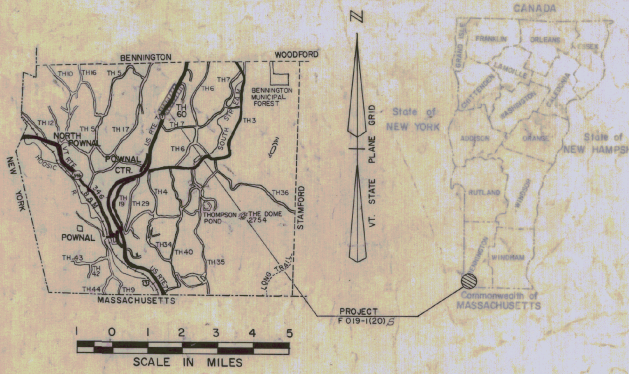
55.-104.		MAINLINE CROSS SECTIONS	



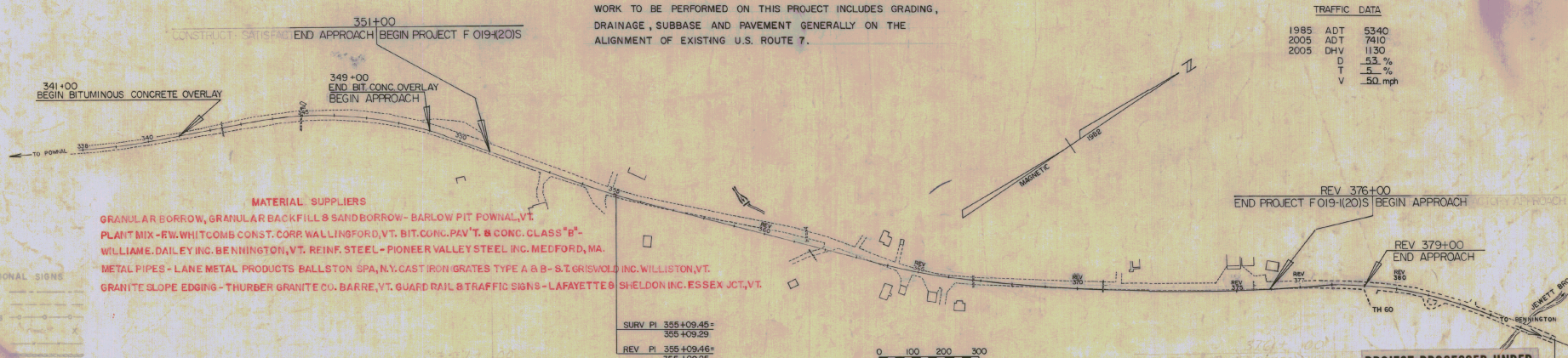
RECORD PLANS

CONTRACTOR-MACKIN CONST. CO., INC. P.O. BOX 667 GREENFIELD, MA. CONTRACT DATED-5-2-85
CONSTRUCTION BEGAN-5-8-85 CONSTRUCTION COMPLETED-11-12-85 ACCEPTED-11-13-85
RESIDENT ENGINEER-HERBERT J. WASHER INSPECTOR-MARK W. HAUGHWOUT RECORD PLANS-MARK W. HAUGHWOUT

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE FOUND IN EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

TRAFFIC DATA

1985	ADT	5340
2005	ADT	7410
2005	DHV	1130
	D	53 %
	T	5 %
	V	50 mph



MATERIAL SUPPLIERS

GRANULAR BORROW, GRANULAR BACKFILL & SAND BORROW - BARLOW PIT POWNAL, VT.
PLANT MIX - F.W. WHITCOMB CONST. CORP. WALLINGFORD, VT. BIT. CONC. PAV'T. & CONC. CLASS "B" - WILLIAMS, DAILEY INC. BENNINGTON, VT. REINF. STEEL - PIONEER VALLEY STEEL INC. MEDFORD, MA.
METAL PIPES - LANE METAL PRODUCTS BALLSTON SPA, N.Y. CAST IRON GRATES TYPE A & B - S.T. GRISWOLD INC. WILLISTON, VT.
GRANITE SLOPE EDGING - THURBER GRANITE CO. BARRE, VT. GUARD RAIL & TRAFFIC SIGNS - LAFAYETTE & SHELDON INC. ESSEX JCT., VT.

CONVENTIONAL SIGNS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
CORP. 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

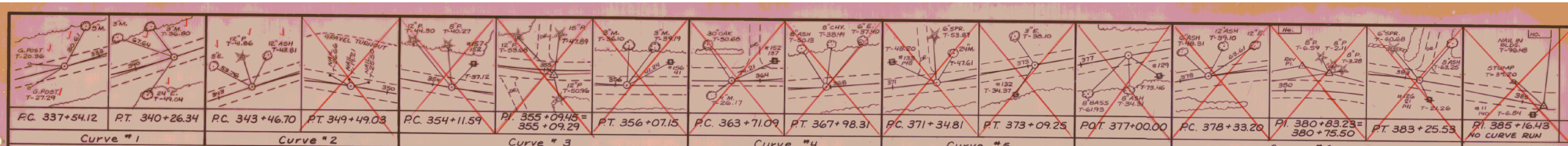
DATUM
VERTICAL ASSUMED
HORIZONTAL N/A

PROJECT PROCESSED UNDER SECONDARY ROAD PLAN

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Const.. Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976, for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED S. J. Gage P.E. DATE 11-29-84
DIRECTOR OF ENGINEERING AND CONSTRUCTION
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT F 019-1(20) S
SHEET 1 OF 104 SHEETS
SAS 12/17/70



NOTES:
1. TIE SKETCHES NOT TO SCALE.
2. ALL SKETCHES ORIENTED TO NORTH ARROW ON THIS SHEET.
3. ALL TIES ARE TO SURVEY ℄.

Surv. Curve #1 Data
Δ 8°-10'-00" Lt.
D 3°-00'-00"
R 1909.86
T 136.34
L 272.22
E 4.86

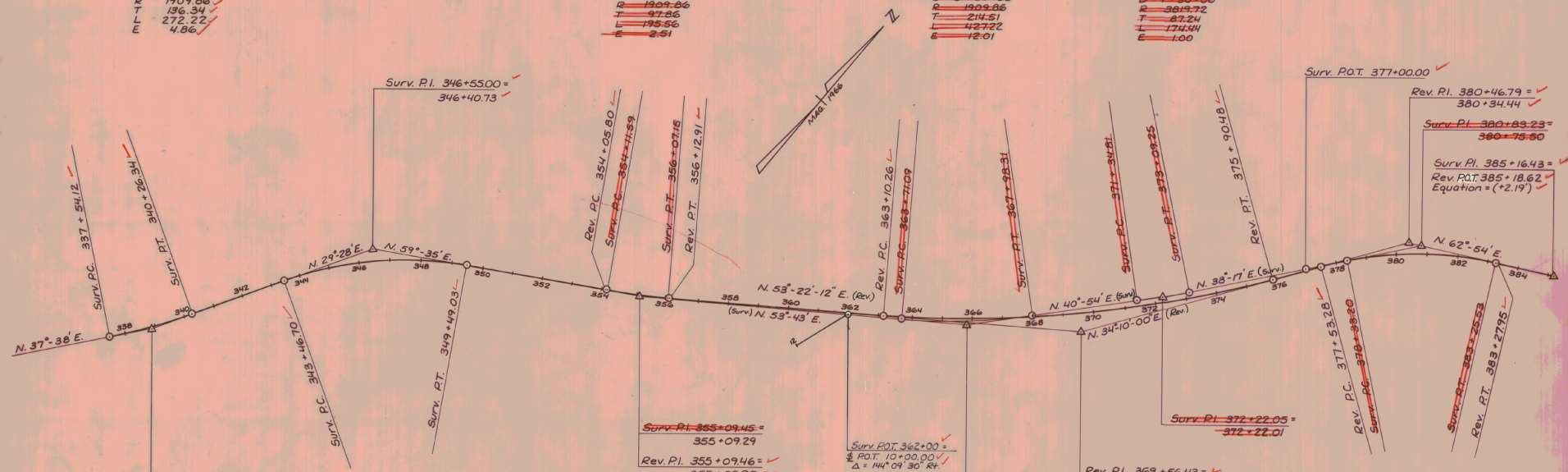
Rev. Curve #3 Data
Δ 6°-12'-48" Lt.
D 3°-00'-00"
R 1909.86
T 103.66
L 207.11
E 2.81
Maximum Bank 0.053 ft./ft.

~~Curve #3 Data~~
~~Δ 5°-52'-00" Lt.~~
~~D 3°-00'-00"~~
~~R 1909.86~~
~~T 97.86~~
~~L 195.56~~
~~E 2.51~~

~~Curve #4 Data~~
~~Δ 12°-49'-00" Lt.~~
~~D 3°-00'-00"~~
~~R 1909.86~~
~~T 214.51~~
~~L 427.22~~
~~E 12.01~~

Rev. Curve #4 Data
Δ 19°-12'-12" Lt.
D 1°-30'-00"
R 3819.72
T 646.17
L 1280.22
E 54.27
Maximum Bank 0.030 ft./ft.

~~Curve #5 Data~~
~~Δ 2°-37'-00" Lt.~~
~~D 1°-30'-00"~~
~~R 3819.72~~
~~T 87.24~~
~~L 174.44~~
~~E 1.00~~



Curve #2 Data
Δ 30°-07'-00" Rt.
D 5°-00'-00"
R 1145.92
T 308.30
L 602.33
E 40.75
Maximum Bank 0.071 ft./ft.

~~Curve #6 Data~~
~~Δ 24°-37'-00" Rt.~~
~~D 5°-00'-00"~~
~~R 1145.92~~
~~T 250.03~~
~~L 492.33~~
~~E 26.96~~

Rev. Curve #6 Data
Δ 28°-44'-01" Rt.
D 5°-00'-00"
R 1145.92
T 293.51
L 574.67
E 36.99
Maximum Bank 0.071 ft./ft.

Legend
xx Rev. ℄
Surv. ℄

Scale in Feet
200 100 0 200 400 600 800

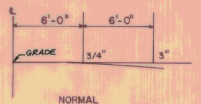
DATUM
VERTICAL ASSUMED
HORIZONTAL N/A

ALIGNMENT SHEET
SURVEYED BY COARSE DATE JAN. '82
DRAWN BY SHANGRAW DATE MAY '83
TRACED BY SHANGRAW DATE MAY 83
PROJ. F NO. 019-1(20)S
SHEET 2 OF 104

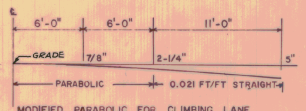
TYPICAL SECTIONS

3" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (1-1/4" TYPE III OVER 1-3/4" TYPE II)
5" PLANT MIXED BASE COURSE, ITEM 303.25 (2 2-1/2" COURSES)
24" ~~SUB-BASE OF CRUSHED GRAVEL (FINE GRADED) 301.26~~ SUB-BASE OF GRAVEL (MOD.) 301.15
SHOULDERS: 1-1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25
0"-12" GRANULAR BORROW (IN FILL), ITEM 203.32)AS INDICATED ON THE PLANS OR
0"-24" SAND BORROW (IN CUT), ITEM 203.31)AS DIRECTED BY THE ENGINEER.

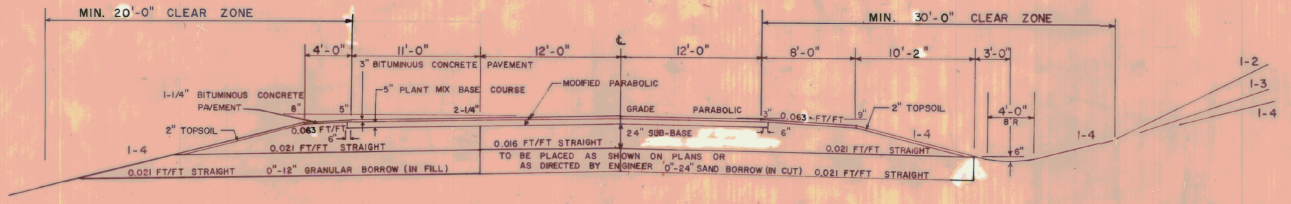
PARABOLIC DETAILS



NORMAL

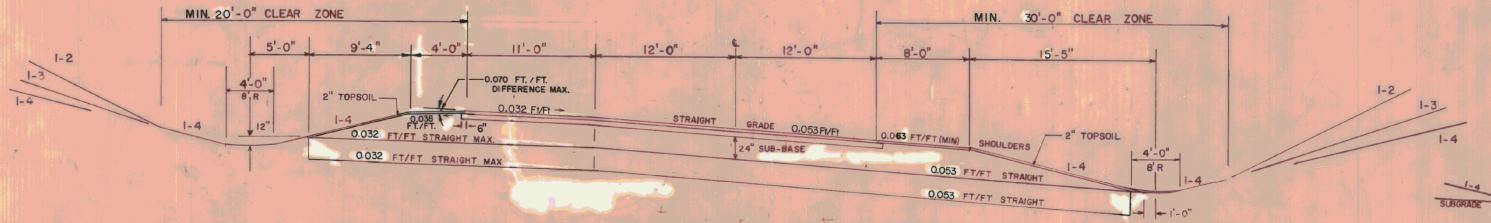


MODIFIED PARABOLIC FOR CLIMBING LANE



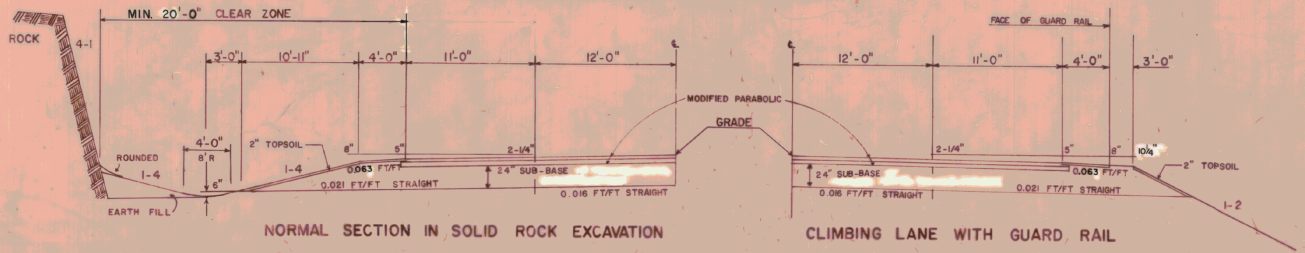
NORMAL SECTION

BUILT AS DESIGNED



MAXIMUM BANKED SECTION 0.053 FT. PER FOOT

TRUCK LANE MAXIMUM BANKED SECTION 0.032 FT./FT.



NORMAL SECTION IN SOLID ROCK EXCAVATION

(SEE STANDARD SHEET A-60 FOR ADDITIONAL DETAILS)

CLIMBING LANE WITH GUARD RAIL

GENERAL NOTES

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT	LBS/A	NAME	PUR%	GERM%
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
5.00	3	HIGHLAND BENT GRASS	92	85
16.67	10	PERENNIAL RYE GRASS (VAR PENNFIRE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (EMPIRE)	98	85
100	60	LBS./ACRE		

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

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

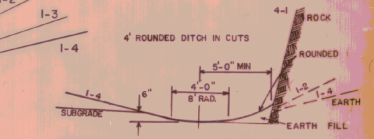
TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN

ALLOWABLE THICKNESS TOLERANCES

SUB-BASE	± 1"
CONTROLLED MATERIAL	± 1"
PAVEMENT	± 1/4"
BASE COURSE	± 1/2"



DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF BANK LESS THAN 0.042 FT/FT



DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF 0.042 FT/FT BANK OR MORE

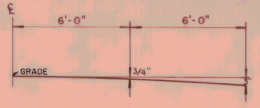
TOWN OF POWNAL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN BY: | TRACED BY:

PROJ. F No 019-1(20)S | SHEET 3 OF 104

TYPICAL SECTIONS



PARABOLIC DETAILS

3" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (1-1/4" WEARING COURSE TYPE III OVER 1-3/4" BINDER COURSE TYPE II)
5" PLANT MIXED BASE COURSE, ITEM 303.25 (PLACED IN TWO 2-1/2" COURSES)
SHOULDERS 1-1/4" BITUMINOUS CONCRETE PAVEMENT ITEM 406.25
24" ~~SUBBASE OF CRUSHED GRAVEL (FINE GRADED) 301.26~~ SUB-BASE OF GRAVEL (MOD.) 301.15
0"-24" SAND BORROW (IN CUT) ITEM 203.31
0"-12" GRANULAR BORROW (IN FILL) ITEM 203.32
} TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER

GENERAL NOTES

URBAN

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT	LBS/A	NAME	PUR%	GERM%
37.50	30	CREEPING RED FESCUE (VAR. PENNLAWN)	98	85
31.25	25	KENTUCKY BLUEGRASS (VAR. COMMON)	85	75
31.25	25	PERENIAL RYE GRASS (VAR. PENNFINE)	95	90
100.00	80	LBS/ACRE		

THE ABOVE URBAN SEED FORMULA IS TO BE USED ON AREAS ADJACENT TO BUILDINGS AS DIRECTED BY THE ENGINEER.

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

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

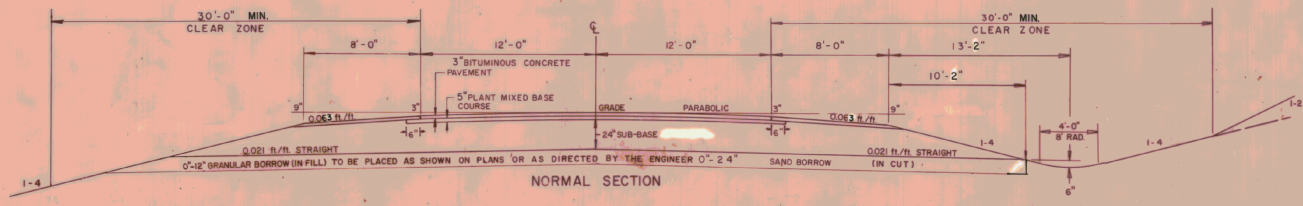
TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN

ALLOWABLE THICKNESS TOLERANCES

SUB-BASE	± 1"
CONTROLLED MATERIAL	± 1"
PAVEMENT	± 1/4"
BASE COURSE	± 1/2"

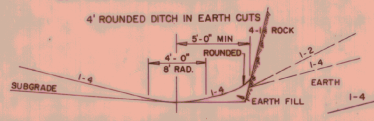


NORMAL SECTION

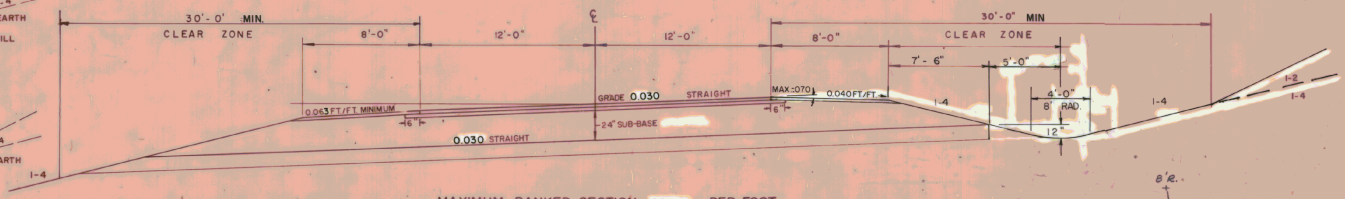
BUILT AS DESIGNED



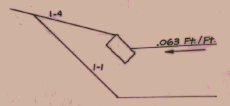
DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF BANK LESS THAN .042



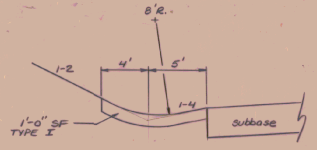
DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF .042 BANK OR MORE



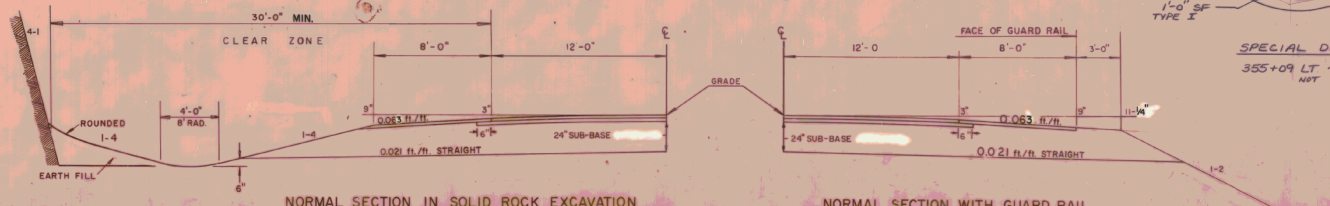
MAXIMUM BANKED SECTION .030 PER FOOT



GRANITE SLOPE EDGING DETAIL
NOT TO SCALE
SEE STANDARD C-1 FOR DETAILS



SPECIAL DITCH TYPICAL
355+09 LT ~ 356+75 ± LT.
NOT TO SCALE



NORMAL SECTION IN SOLID ROCK EXCAVATION
(SEE STANDARD SHEET A-60 FOR ADDITIONAL DETAILS)

NORMAL SECTION WITH GUARD RAIL

TOWN OF POWNAL

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

DRAWN BY C.E. Hurley	TRACED BY: Laufman
PROJ. No F 019-1(20)S	SHEET 4 OF 104

QUANTITY SHEET

STATE OF VERMONT AGENCY OF TRANSPORTATION

POWNAL PROJECT NO. F 019-1(20)S

SUMMARY SHEET NO. ____ OF ____ 19 ____

APPROXIMATE SUMMARY OF QUANTITIES

EROSION CONTROL	R. O. W.	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS		ITEM NO.
			1	1	LS	Clearing & Grubbing (Plus individual trees & Stumps)		201.10
			880	880	LF	Removal & Disposal of Existing Guardrail		202.40 9
			32,600	32,600	CY	Common Excavation		203.15
			3,000	3000	CY	Solid Rock Excavation		203.16
			2,000	2,000	CY	Muck Excavation		203.20
			10,600	10,600	CY	Sand Borrow (Est.)		203.31
			1800	1,800	CY	Granular Borrow		203.32
			19,100	19,100	SY	Fine Grading - Subgrade		206.40
48			2,702	2750	CY	Trench Excavation of Earth		204.20
			200	200	CY	Trench Excavation of Rock		204.21 31
			30	30	CY	Granular Backfill for Structures		204.30 14
			2000	2000	SY	Drilling & Blasting of Solid Rock Subgrade		206.10 511
236			15,764	16,000	CY	Subbase of Crushed Gravel Fine Graded		301.20
			2,940	2940	Ton	Plant Mixed Base Course		303.25 2
			2220	2220	Ton	Bituminous Concrete Pavement		406.25
			31	31	CY	Concrete, Class B		501.25
			1550	1550	LB	Reinforcing Steel		507.15
			504	504	LF	18" ACCGMP (.064)	601.	1552
			310	310	LF	24" ACCGMP (.064)	601.	1572
			122	122	LF	36" ACCGMP (.079)	601.	1593
			54	54	LF	15" CGMP (.064)	601.	1792
						BEGIN OPTION PIPES		
			62	62	LF	15" CGMP (.064)	601.	1792
			62	62	LF	15" CAACP (.060)	601.	2042
			62	62	LF	15" RCP CL III	601.	2613
						END OPTION PIPES		
			4	4	EA	Cast Iron Grate w/ Frame Type "A"		604.45
			2	2	EA	Cast Iron Grate w/ Frame, Type "B"		604.46
			1850	1850	LF	6" Underdrain		605.101
			430	430	LF	6" Underdrain Carrier Pipe		605.151
			10	10	EA	Underdrain Flushing Basins		605.95
			40	40	HR	Roadway Patrol Maintenance		607.10
			1	1	HR	Bulldozer Rental, Type I (NABI)		608.10
			1	1	HR	All Purpose Excavator Rental, Type I (NABI)		608.25
			1	1	HR	Truck Rental (NABI)		608.37
			120	120	MGAL	Dust Control w/ Water		609.10
			2	2	TON	Dust Ice Control w/ Calcium Chloride		609.15
400				400	CY	Stone Fill, Type I		613.10 6
24				24	CY	Stone Fill, Type II		613.11
			330	330	LF	Granite Slope Edging		616.15 4
			88	88	LF	Metal Hand Railing		617.10
			10	10	EA	Boundary Markers		619.10
			9	9	EA	Wood Marker Posts		619.15
			5	5	EA	Removing & Resetting Property Markers (Est.)		619.20
			100	100	LF	6" ABS Sewer Pipe - Solid Wall		628.20
			3	3	EA	Extension Service Box & Curb Stop		629.25
			1	1	EA	Gate Valve w/ Box		629.27
			1250	1250	LF	1" Steel Water Pipe, Galvanized		629.30
			400	400	LF	2" Steel Water Pipe, Galvanized		629.34
			430	430	Hr.	Uniformed Traffic Officers (Est.)		630.10
			1160	1160	Hr.	Flaggerpersons (Est.)		630.15
			1	1	LS	Field Office - Eng.		631.10
			1	1	LS	Mobilization		635.10
			8100	8100	LF	Temporary 4" Reflectorized White Line		646.35
			14,400	14,400	LF	Temporary 4" Reflectorized Yellow Line		646.36
360				360	LB	Seed		651.10
30				30	LB	Seed - Winter Rye		651.12
3000				3000	LB	Fertilizer		651.15
12				12	TON	Agricultural Limestone		651.20
13				13	TON	Hay Mulch		651.25
			350	350	CY	Topsoil		653.10
95			505	600	SY	Erosion Matting		654.20 13
100				100	LF	Silt Fence		654.30
			53	53	SF	Traffic Signs, Type A		675.20
			256	256	LB	Traffic Sign Posts, Type A		675.35
			32	32	SF	Removing Signs		675.51

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		Common Excavation
21215	CY	Mainline (Total Excav. Earth minus Rock)
10600	CY	Excav. for Sand Borrow in Cut Areas (Est.)
520	CY	Drives
206	CY	Cut to Fill Transition
59	CY	Round
32600	CY	TOTAL
		Trench Excavation of Earth
1489	CY	Drainage Sheet
782	CY	Underdrain - designed
206	CY	Underdrain - estimated
17	CY	Underdrain Carrier Pipe - designed
58	CY	Underdrain Carrier Pipe - estimated
40	CY	Test Pits
10	CY	Round
2702	CY	TOTAL
		Subbase of Crushed Gravel - Fine Graded
12924	CY	Roadway
855	CY	Begin Approach
1057	CY	End Approach
922	CY	Drives
6	CY	Round
15764	CY	TOTAL
		Bituminous Concrete Pavement
1684	TON	Mainline
134	TON	Begin Approach
145	TON	End Approach
205	TON	Overlay (Sta. 341+00 ~ 349+00)
33	TON	Drives
19	TON	Round
2220	TON	TOTAL
		Granular Borrow
1059	CY	Capping Fills
686	CY	Muck Excavations
4	CY	Drainage Sheet
51	CY	Round
1800	CY	TOTAL
		Solid Rock Excavation
1995	CY	Mainline
867	CY	Concrete Slabs
138	CY	Round
3000	CY	TOTAL
		Muck Excavation
686	CY	Design (Sta. 368+50 Rt. ~ 371+50 Rt.)
1314	CY	estimated (Possible Muck Area, Sta. 367+00 Rt. ~ 377+00 Rt.)
2000	CY	TOTAL
		Reinforcing Steel
1184	LB	Drainage Sheet
337	LB	Conc. Steps
29	LB	Round
1550	LB	TOTAL
		Concrete, Class "B"
25.2	CY	Drainage Sheet
0.9	CY	Conc. Steps @ Sta. 363+55 ± Lt.
0.9	CY	Conc. Steps @ Sta. 364+15 ± Lt.
3.1	CY	Conc. Steps @ Sta. ± 11+55 ± Lt.
0.9	CY	Round
31.0	CY	TOTAL
		Temperary Erosion Control
48	CY	Trench Excavation of Earth
236	CY	Subbase of Crushed Gravel - Fine Graded
24	CY	Stone Fill, Type I
32	LB	Seed, Winter Rye
1	TON	Hay Mulch
95	SY	Erosion Matting
100	LF	Silt Fence

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −
TOTALS						

LENGTH OF PROJECT

STATIONS		FEET	MILES	REMARKS
351+00	376+00	2500.00	0.473	
TOTALS				

POWNAL

No. F-019-1(20)S Sheet 5 of 104 Sheets

ITEM DETAIL AND DRAINAGE SHEET

* DENOTES STAGE II CONSTRUCTION

DRAINAGE STRUCTURES

STA	STA	POSITION	ASKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	STEEL W. PIPE, GALVANIZED D IN	STEEL W. PIPE, GALVANIZED L FT	ACCGMP D IN	ACCGMP L FT	ACCGMP TH	CAACP D IN	CAACP L FT	CAACP TH	OPTION D IN	OPTION L FT	RC P CL	CG MP TH	CAA CP TH	CGMPP/PPA D/S IN	CGMPP/PPA R IN	CGMPP/PPA L FT	NO PIPE ELBOW EA	ELBOWS O IN	ELBOWS TOP DEG	ELBOWS BOT DEG	24" CPL BD	M E S EA	LATE RT. HAND OUTLET STOP	DEPTH DI	CONC CL B CY	REIN STEEL LBS	DI GRATE TYPE	CHAN ELEV	C R M CY	TR EXCAV EARTH CY	TR EXCAV ROCK CY	CH EXCAV EARTH CY	CH EXCAV ROCK CY	STRUC EXCAV CY	GRAV BKF STRUC CY	STONE FILL CY	STONE FILL TYPE	GRANULAR BACKFILL CY	EROS. MATTING	STEEL MKR POSTS LT	STEEL MKR POSTS RT	WOOD MKR POSTS LT	WOOD MKR POSTS RT	REMARKS
342+36		℄																																														
344+30		℄																																														
350+50	354+76	LT-LT																																													EXISTING 18" RCP RETAIN
354+68		RT													15	62	III	.064	.060																9													EXISTING 30" ACCGMP RETAIN
354+92		LT							18	36	.064																																					DRIVE CULVERT
354+95	358+00	RT-RT																																														DRIVE CULVERT
355+09	361+56	LT-LT																																													
358+00		℄		RCDI					18	88	.064																																					SPECIAL DITCH @ SF TYPE I
Surv. 358+82		LT																																													SUB-TOTAL
Surv. 358+82	Surv. 361+70	LT-RT																																													TOTAL
359+50±	363+50±	LT-LT					2	400																																							SPECIAL DITCH @ SF TYPE I
360+00		℄		RCDI					18	96	.064																																					SF TYPE II @ OUTLET
Surv. 361+13		LT																																														GRANITE SLOPE EDGING
Surv. 361+55	Surv. 361+80	RT-RT																																														LF
361+50	362+00	LT-RT		HW					36	122	.079																																					SPRING BOX-DO NOT DISTURB
Surv. 361+70		RT																																														
361+74	362+74	LT-LT																																														
362+02	362+74	RT-LT		RCDI					18	128	.064																																					DISCONTINUE EXISTING WATER LINE (PLUG INLET)
Surv 362+91		LT																																														NEW 2" WATER LINE
363+50±	376+00 ±	LT-LT					1	1250																																								
363+50±		LT																																														
363+60		LT																																														
364+03	364+56	LT-LT		RCDI					18	58	.064																																					EXISTING 5'X5' CONC BOX (SPRING) REMOVE (SOLID ROCK) & PLUG OUTLET WATER PIPES
364+50	365+00	LT-LT																																														EROSION MATTING
364+56	366+86	LT-LT																																													
SURV	366+76	℄	85°RT																																													
366+75	367+00	LT-RT							24	100	.064																																					ENCASE WATER PIPE WITH CONC.
367+45	370+76	LT-LT																																														SPECIAL DITCH WITH SF TYPE I
370+50	371+00	LT-LT																																														15" RCP REMOVE
Surv. 370+73		LT																																														SF TYPE I @ OUTLET
370+76		℄		RCDI					24	110	.064																																					EROSION MATTING
371+50	374+00	LT-LT																																														ENCASE WATER PIPE (1" ø) WITH CONC.
371+75	374+00	LT-LT																																														EXISTING 4" PVC RETAIN
371+93 ±		LT																																														SF TYPE I @ OUTLET
371+92		LT																																														EXISTING 15" RCP REMOVE
374+00		℄		RCDI					18	98	.064																																					EROSION MATTING
375+50	376+00	LT-LT																																														
SURV	375+41.5	℄		RCDI(Retain)					24	100	.064																																					SPECIAL DITCH / 203.15
376+00±		LT																																														CONNECT EXISTING HOUSE SERVICE
Surv. 379+21		LT																																														EXISTING 4" DRAIN RETAIN
Surv. 380+41		LT																																														SF TYPE I @ OUTLET
382+50		LT																																														ENCASE WATER PIPE WITH CONC.
℄	(368+48 RT) 11+00 ℄	LT-RT													15	54	—	—	.064	—																													15" RCP REMOVE (RETAIN DI)
																																																CONNECT EXISTING HOUSE SERVICE
																																																EXISTING 12" RCP RETAIN
																																																DRIVE CULVERT RETAIN
																																																EXISTING 12" CMP RETAIN
																																																DRIVE PIPE W/SPECIAL DITCH W/3F @ OUTLET
							1	1250	18	504	.064				15	62	III	.064	.060										1	3	25.2	1184	4-A			1489	108			16	370	I	4	492					
							2	400	24	310	.064				15	54	—	.064	—													2-B							24	II								
									36	122	.079																																							

GUARD RAIL

REMOVAL AND DISPOSAL OF EXISTING

SURV. STA	SURV. STA	LT	RT	MEDIAN	ANCHORS
359+53	361+94	241			
360+22	361+69	147			
366+67	371+50		483		
SUB-TOTAL		388	483		
	TOTAL	871			
GRANITE SLOPE EDGING		LF			
363+14	364+06	92'			
374+00	374+75	52'			
374+70	375+10	91'			
375+40	375+80	91'			
	SUB TOTAL	326'			
	ROUND	4			
	TOTAL	330			
TOTALS					

UNDERDRAIN

STA	STA	TYP	POS	D	L	TRENCH E	TRENCH R	GRAV BKF	FB	MKR PST
351+98	357+98	U	LT/LT	6	600	306	61		1	1
357+98		C	LT	6	24	0			1	1
368+00	370+74	U	LT/LT	6	274	167			1	1
370+74		C	℄	6	98	3			1	1
370+78	373+98	U	LT/LT	6	320	196			1	1
373+98		C	℄	6	90	5			1	1
374+02		C	℄	6	90	9			1	
374+02	375+52	U	LT	6	150	113			1	1
SUB-TOTAL		U		6	1344	782	61		4	4
		C		6	302	17			4	3
ESTIMATE		U		6	506	306			1	1
		C		6	128	58			1	1
TOTALS		U		6	1850	1088	61			
		C		6	430	75			10	9
TOTALS										

PROJECT: POMNAL

STAGE I PROJ NO. F 019-1(20) S

SHEET 6 OF 104

STAGE II PROJ NO.

SHEET OF

SUNKING 40-105 40592

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR POST WAR	SHEET NO.	TOTAL SHEETS
I	VT				

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	MUCK AREA	MUCK CU. YDS.
		341												
		+50												
		342	4125											
		+50												
		343												
		+50												
		344												
		+50												
		345												
		+50												
		+70												
		346												
		+50												
		347												
		+50												
		348												
		+50												
		349	439.77	433.72	-6.05	50	Butt 100		BEGIN APPROACH C. 1006					
		+50	441.72	433.70	-8.02		94	180	F. 0					
		350	443.66	433.39	-10.27		111	190	F.FAC 1.15					
		+50	445.61	432.81	-12.80		185	274	EX.C. 1006					
		+60	446.00	432.66	-13.34			362	END APPROACH					
		351	443.20	431.95	-11.25		206	357	BEGIN PROJECT F019-1(20)S		0	4		
		+50	439.70	430.81	-8.89		180	316			4	24		
		352	436.20	429.39	-6.81		161	280			22	20		
		+50	432.71	427.71	-5.00		141	658						
		+80	430.61	426.56	-4.05				C. 3114					
		353	429.21	425.74	-3.47		570	608	F. 239		0	61		
		+50	425.71	423.49	-2.22		87	169	F.FAC 1.15		66	93		
		354	422.21	420.96	-1.25	50	95	176	EX.C. 2889		34	34		
		+49.99	418.71	418.15	-0.56	49.99	95				3			
		+50	418.71	418.15	-0.56			245				3		
		+79.99	416.61	416.34	-0.27	50								
		+99.99	415.21	415.07	-0.14		170				0			
		355	415.21	415.07	-0.14			305						
		+49.98	411.72	411.72	-0.00	49.99	159							
		+50	411.71	411.72	-0.00			430						
		+99.97	408.22			49.99	305		0					
		356	408.22					798		20				
		+49.95	404.72			49.98	557	22						
		+50	404.72					1173		85				
		+99.95	401.22			50	710		70					
		357	401.22					1874		182				
		+49.95	397.72			50	1314		127		0			
		+50	397.72					2302		166		1		
		+99.95	394.28			50	1172		52		1			
		CARRIED FORWARD						6577		453		1		0
		COLUMN FOOTINGS						9691		453		240		0

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	MUCK AREA	MUCK CU. YDS.
		357+99.95	394.23				1172		52		1			
		358	394.22					2215		222		10		
		+49.95	390.73			50	1220		188		10			
		+50	390.72					1986		456		29	C. 12344	
		+99.95	387.23				925		305		21		R. 1489 R.FAC .495 F. 886 F.FAC 1.15 EX.C. 12062	
		359	387.23					1134		320		56		
		+49.95	383.73				300		41		39			
		+50	383.73					333		38		240		
		+99.95	380.23				60		0		220			
		360	380.23					99		0		550		
		+49.95	376.73				47				374			
		+50	376.73					94				743		
		+99.95	373.23			50	54				428			
		361	373.23											
		+32.96	370.92					98				675		
		+42.96	370.23											
		+49.96	369.74			50.01	52				301			
		+50	369.73					115				498		
		+99.96	366.24			50	72				237			
		362	366.23					184				595		
		+49.96	362.74				127				406			
		+50	362.74					151	C. 2501 R. 268 R.FAC .495 F. 3624 F.FAC 1.15 EX.F. 1584			683		
		+99.96	359.24				36				332			
		363	359.24					94				355		
		+49.96	355.74			50	65				51			
		+50	355.74					164				66		
		+73.96	354.06											
		+99.88	352.25			49.92	112				20			
		364	352.24					93				9		
		+24.80	350.50			24.92	90	bk			0			
		+49.72	348.76			24.92	194	ahd			0			
		+50	348.74				265	212	0	0	0	0		
		+64.66	347.71					514		28				
		+75	346.99	346.99	0.00	49.83								
		+99.55	345.27	345.31	+0.04		292		30					
		365	345.24	345.28	+0.04			782		240				
		+49.40	341.79	342.11	+0.32	49.85	555		230					
		+50	341.74	342.07	+0.33			694		225				
		+87.32	339.13	339.87	+0.74									
		+99.30	338.30	339.20	+0.90	49.90	196		14					
		366	338.25	339.17	+0.92			253		13		0		
		+49.28	334.80	336.58	+1.78	49.98	77		0		0			
		+50	334.75	336.54	+1.79			147		0		88		
		+75.31	332.98	335.33	+2.35									
		+99.36	331.29	334.24	+2.95	50.08	82				95			
		367	331.25	334.21	+2.96									
		+25	329.50	333.16	+3.66	50.20		175				293		
		CARRIED FORWARD						1269		238		381		0
		COLUMN FOOTINGS						9537		1542		4890		0

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	MUCK AREA	MUCK CU. YDS.
		367+25	329.50	333.16	+3.66									
		+49.56	329.22	332.20	+2.98			107				220		
		+50	329.22	332.18	+2.96	50.36			172					
		+99.92	328.65	330.46	+1.81			77		C. 2042 R. 238		275		
		368	328.65	330.44	+1.79					F. 3069				
		+50	328.08	329.00	+0.92				129	R.FAC .495 F.FAC 1.15 EX.F. 1370		520		
		+50.09	328.08	328.99	+0.91	50.17		62		MUCK 357		285		0
		369	327.51	327.84	+0.33				128			500		63
		+00.21	327.51	327.84	+0.33	50.12		76				254		68
		+50	326.95	326.99	+0.04				163			549		144
		+50.29	326.94	326.98	+0.04	50.08		100				338		87
		+75	326.66	326.66	0.00									
		370	326.38			50.05			181			657		150
		+00.34	326.38					95				371		75
		+50	325.81						192			703		163
		+50.36	325.81			50.02		112				388		101
		+76.37	325.51						217			707		130
		371	325.24											
		+00.37	325.24			50.01		122				375		39
		+25.37	324.96						188			628		36
		+50	324.68											
		+50.47	324.67			50.10		81		C. 1973 F. 4532		302		0
		+75.63	324.39						157	F.FAC 1.15 EX.F. 3239		696		
		372	324.11							MUCK 329				
		+00.79	324.10			50.32		88				445		
		+50	323.54						199			614		
		+51.11	323.53			50.32		126				214		
		373	322.97						274			342		
		+01.43	322.96			50.32		168				153		
		+50	322.41						296			299		
		+51.49	322.39			50.06		151				170		
		374	321.84						257			223		
		+01.49	321.82			50		127				71		
		+50	321.27						145			151		
		+51.51	321.25			50.02		30				92		
		375	320.70						48			169		
		+01.56	320.69			50.05		22		C. 125 F. 738		90		
		+50	320.14						45	F.FAC 1.15 EX.F. 724		317		
		+51.63	320.12			50.07		27				252		
		+56.14	320.07											
		376	319.57			50.12			80	END PROJECT F019-1(20)S				421
		+01.75	319.55					59		BEGIN APPROACH		202		
		+50	319.00						157			266		
		+51.88	318.98			50.13		110				85		
		CARRIED FORWARD						157		0		266		0
		COLUMN FOOTINGS						2871		0		7958		686

PROJECT POWNAL

PROJECT F NO. 019-1(20)S
SHEET 7 OF 104 SHEETS

K = 90
L = 980'
SSD 346
+3.8953 %
-6.9970 %
K = 85
L = 500'
-6.9970 %
-1.1349 %

D-5

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR. V.C.	TOTAL EXCAVATION EARTH AND ROCK DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.			EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		376+51.88	318.98				110				85			
		377	318.43			50.13		213				108		
		+02.01	318.41				119				31			
		+25	318.15	318.15	0				C.	972				
		+50	317.87	317.85	-0.02			185	F.	564		76		
						50.13			F FAC.	1.15				
		+52.14	317.84	317.81	-0.03		80		EX.C	323	51			
		378	317.30	317.08	-0.22			149				74		
						50.07								
		+02.21	317.25	317.04	-0.21		81				29			
						47.79		138				33		
		+50	316.15	316.13	-0.02		75				8			
								130				7		
		+52.21	316.10	316.08	-0.02									
						50								
		+75	315.58	315.58	0									
		379	315.00				65	BUTT	END APPROACH		0			
		+02.21	314.95											

L=150 S50=648 K=129 -1.1349 % -2.3000 %

CARRIED FORWARD
COLUMN FOOTINGS

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.			EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.

CARRIED FORWARD
COLUMN FOOTINGS

EARTHWORK SUMMARY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF BALANCES

STATION TO STATION	TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	MUCK CUBIC YARDS
BEGIN APPROACH	1006	0	0	1006		1006		
351+00 355+00	3114	0	239	2839		3845		
355+00 360+00	12344	1489	886	12062		15907		
360+00 365+00	2501	268	3624		1534	14373		
365+00 370+00	2042	238	3069		1370	13003		357
370+00 375+00	1973	0	4532		3239	9764		329
375+00 376+00	125	0	738		724	9040		
END APPROACH	972	0	564	323		9363		
ROADWAY SUBTOTL	24077	1995	13652			9363		
DRIVE	520	0	2406		2247	7116		
CUT to FILL TRANS.	206	0	206		31	7085		
CONCRETE SLABS	867	867	0	1296		8381		
SUBTOTAL	25672	2864	16264					686
(361+70, RT) SPRING BOX	2	2		3		8384		

SUMMARY BY COLUMNS

SHEET NO.	COL. NO.	EXCAVATION TOTAL CU. YDS	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS	BASE CUBIC YARDS
BEG. APPR.		1006	0	0	
1	1	9691	453	240	
1	2	9537	1542	4890	
1	3	2871	0	7958	
END APPR.		972	0	564	
SUB-TOTAL		24077	1995	13652	
DRIVE		520	0	2406	
CUT TO FILL		206	0	206	
CONC. SLABS		867	867	0	
SPRING BOX		2	2	0	
TOTAL		25672	2864	16264	

REMARKS

EARTH AND ROCK EXCAVATION	25672
SOLID ROCK EXCAVATION	2864
EARTH EXCAVATION	22808
PLANIMETERED FILL	16264
LESS FACTORED SOLID ROCK (1.3)	3723
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	—
NET PLANIMETERED FILL	12541
FACTOR (0.15)	1881
PLANIMETERED FILL INCLUDING FACTOR	14422
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	22808
CHANNEL EXCAVATION	—
UNDERDRAIN EXCAVATION (782 x 0.6)	469
STRUCTURE EXCAVATION	
MUCK (686 x 0.5)	343
TOTAL MATERIAL AVAILABLE FOR FILL	23620
TOTAL FILL INCLUDING FACTOR	14422
TOTAL MATERIAL FOR FILL	
BORROW	
EXCESS EXCAV. SUB-TOTAL	9198
PLUS DEDUCTABLE GRANULAR BORROW	1063
EXCESS EXCAVATION TOTAL	10261

PROJECT POWNAL

PROJECT F NO. 019-1(20)S
SHEET 8 OF 104 SHEETS

BRUNING #2592

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1A	HEIL, ETHEL M.	10,11	349+00 RT.	REV. 354+78 RT.	0.21 A±			WD		POWNAL			
			349+00 RT.	REV. 354+78 RT.		34.79 A±		COND.	9-20-84		79	50-56	
			352+88 RT.				DRIVE (T)						16' GRAVEL M.P. 06.68 DRIVE PERMIT DATE:
			REV. 354+68 RT.				DRIVE (T)						30' GRAVEL M.P. 06.72 DRIVE PERMIT DATE:
1B			349+00 RT.	REV. 354+63 RT.	1.00 A±		ALL R.T.& I.						HWY. EASE. U.S. RTE. 7
				TOTAL	1.21 A±	34.79 A±							
2A	DAVIS, GORDIAN P.	10,11	352+84 LT.	REV. 354+80 LT.	0.05 A±			WD	6-15-84	POWNAL	87	310	(2050 S.F.±)
			352+84 LT.	REV. 354+80 LT.		5.88 A±							
			352+35 LT.	REV. 354+80 LT.			CONST. EASE. (T) (0.06 A±)						(2800 S.F.±)
			352+50 LT.	353+60 LT.			SLOPE (P) (0.05 A±)						(2200 S.F.±)
			REV. 354+30 LT.	REV. 354+80 LT.			SLOPE (P) (90 S.F.±)						
2B			349+85 LT.	REV. 354+80 LT.	0.45 A±		ALL R.T.& I.						HWY. EASE. U.S. RTE. 7
			350+35 LT.										16' GRAVEL DRIVE M.P. 06.64 DRIVE PERMIT DATE:
				TOTAL	0.50 A±	5.88 A±							
3A	JONES, STEPHEN E. & KIMBERLY I.	11	REV. 354+63 RT.	REV. 359+27 RT.	0.26 A±			WD		POWNAL			
			REV. 354+78 RT.	REV. 358+83 RT.		0.84 A±		COND.	9-20-84		79	50-56	
			REV. 354+68 RT.				DRIVE (T)						30' GRAVEL M.P. 06.72 DRIVE PERMIT DATE:
			REV. 355+75 RT.	REV. 358+83 RT.			SLOPE (P) (0.28 A±)						
3B			REV. 354+63 RT.	REV. 359+54 LT.	0.35 A±		ALL R.T.& I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.61 A±	0.84 A±							

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	1,4,5, 10, 11	C.O.# 6014 PARCELS# 1, 2, 3, & 4 CHANGED P/L to 1/2 OF OLD U.S.7 PRIME TO PROJECT PLANS. AFFECTED TAKE AREAS on 1B FROM 0.46A± TO 1.00A±, 2B 0.74A± to 0.45 A±; 3A FROM 0.21A± TO 0.26A±; 3B FROM 0.20A± TO 0.35A±; 4A FROM 0.46A± TO 0.50A±	9-23-83	DEM	
2	10	PARCEL# 2 DAVIS, Added springhouse AT STA. 351+00 LT. PER C.O.# 6018	10-14-83	DEM	LwB
3	11	PARCEL# 3 JONES, DELETED SPRING AT STA. REV. 356+44 175'± RT. PER C.O.# 6019	10-14-83	DEM	LwB
4	11	PARCEL# 4 BROWN, REVISED TOPO OF DRIVE, WATER LINES, + CAMP BEGINNING AT REV. STA. 356+00 LT.± PER C.O.# 6020	10-14-83	DEM	LwB
5	5,11	PARCEL# 4 BED BROWN, REVISED SOUTHERLY P/L TO REV. STA. 356+15 LT.± TO RT. FROM REV. STA. 356+88± LT. TO RT. + the AFFECTED STA'S, + AREAS; DELETED CUL, DIT, + DR. (P) PER C.O.# 6021	10-14-83	DEM	LwB
6	6,11	PARCEL# 7 FOSTER, REVISED TOPO, Added CONC. STEPS, WALK, + WALL + HEDGE ROW to layout + detail sheet PER C.O. # 6022	10-14-83	DEM	LwB
7	7,11	PARCEL# 9 FORCIER, RELOCATE STONE WALL AT REV. STA. 367+10 RT.± REVISED P/L's Added CONST. EASE (T) + CUL, DIT, + DR. (P) PER C.O.# 6023	10-14-83	DEM	LwB
8	8	PARCEL# 13 ZACHER, Added ALL R.T.& I. IN PARKING AREA AT STA. REV. 373+60 RT ~ 375+30 RT. PER C.O.# 6024	10-14-83	DEM	LwB
9	12	PARCEL# 13+15 ZACHER, MODED FENCE + PLANTER TOPO PER C.O.# 6025	10-14-83	DEM	LwB
10	5,7,12	PARCEL# 13A + 15A ZACHER, REVISED TAKE LINE, DELETED TAKE AREA PARCEL 13, REVISED TAKE AREA + REM. PARCEL 15 PER C.O.# 6026	10-14-83	DEM	LwB
11	9,11	PARCEL# 16 BAKER, DELETED PARCEL PER C.O.# 6027	10-14-83	DEM	LwB
12	11	PARCEL# 7 FOSTER, ADDED CONST. NOTE to REPLACE CONC. STEPS AT STA. REV. 363+55 LT. PER C.O.# 6040	10-26-83	DEM	LwB

MADE BY: DEM DATE 7-28-83

CHECKED BY: JDP DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONS'T. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT POWNAL
NO. F019-1(20)S
SHEET 11 OF 104

ROW

BRUNING 64-131-60992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
4A	BROWN, ROBERT E JR. & MARY L. GUETTI, JENE E	11,12	REV. 354 + 80 LT. REV. 354 + 80 LT. REV. 354 + 92 LT.	REV. 361 + 70 LT. REV. 361 + 70 LT.	0.35 A±	18.61 A±	DRIVE (T)	WD	8-25-84	POWNAL	79	1	16' GRAVEL M.P. 06.72 DRIVE PERMIT DATE: (1300 S.F±)
			REV. 355 + 60 LT. REV. 356 + 50 LT. REV. 357 + 75 LT. REV. 359 + 14 LT. REV. 360 + 60 LT. REV. 359 + 25 LT± REV. 359 + 40 LT.±	REV. 356 + 88 LT± REV. 361 + 71 LT. REV. 358 + 35 LT. REV. 359 + 27 LT. REV. 361 + 45 LT. REV. 361 + 33 LT± REV. 361 + 69 LT.±			SLOPE (P) (0.03 A±) CONST. EASE. (T) (0.10 A±) SLOPE (T) (360 S.F±) SLOPE (T) (0.01 A±)						CONCRETE DAM (EXCEPT & RESERVE) (420 S.F±) WATERLINE WATERLINE
4B			REV. 368 + 18 RT. REV. 368 + 22 RT. REV. 368 + 22 RT. REV. 368 + 22 RT.	REV. 370 + 31 RT. REV. 370 + 31 RT. REV. 370 + 35 RT. REV. 370 + 37 RT.	0.17 A ±	11.83 A±	SLOPE (T) (0.11 A±) CONST. EASE. (T) (0.05 A±)						(2100 S.F±)
			REV. 369 + 00 RT.				DRIVE (T)						14' GRAVEL M.P. 06.99 DRIVE PERMIT DATE:
4C			REV. 354 + 80 LT.	REV. 361 + 70 LT.	0.50 A ±		ALL R. T & I.						HWY. EASE. U.S. RTE. 7
4D			REV. 368 + 15 RT.	REV. 370 + 27 RT.	0.12 A ±		ALL R. T & I.						HWY. EASE. U.S. RTE. 7
4E			REV. 365 + 91 RT.				ALL R. T & I.						R.O.W. WITH IN U.S. RTE. 7 HWY. EASE.
				TOTAL	1.14 A ±	31.44 A ±							
5A	GARDNER, MILTON A. JR. & BETTY L.	11	REV. 358 + 83 RT. REV. 358 + 83 RT. REV. 358 + 00 RT. REV. 357 + 94 RT. REV. 360 + 20 RT. REV. 361 + 48 RT. REV. 361 + 45 RT.± REV. 360 + 91 RT.	REV. 362 + 01 LT. REV. 361 + 36 RT. REV. 360 + 00 RT. REV. 361 + 10 RT. REV. 361 + 36 RT. REV. 361 + 60 RT± REV. 361 + 04 RT.	0.27 A ±	1.33 A±	SLOPE (P) (0.14 A±) CONST. EASE. (T) (0.04 A±) SLOPE (T) (0.02 A±) DRIVE (T) ALL R. T & I. CULVERT (T)	WD COND.	9-20-84	POWNAL	79	50-56	(1700 S.F±) (1050 S.F±) 16' GRAVEL M.P. 06.84 (IN COMMON WITH PARCEL 6) DRIVE PERMIT DATE: WATERLINE
5B			REV. 359 + 27 RT.	REV. 362 + 24 LT.	0.16 A ±		ALL R. T & I.						HWY. EASE. U.S. RTE. 7
5C			REV. 354 + 68 RT.				ALL R. T & I.						R.O.W. WITH IN U.S. RTE. 7 HWY. EASE.
				TOTAL	0.43 A ±	1.33 A ±							

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
13	6	PARCEL # 6 HATTAT, M+H.; Revised Remainder From 3.34 A± To 2.84 A± PER C.O. # 6078	11-17-83	DEM	LWB
14	5, 11	PARCEL # 4 Brown; Revised Septic System + Deleted Leach Field at Sta. 355+60 ~ 355+80 Lt From Detail Sheet Per C.O. # 6082	11-17-83	DEM	LWB
15	8, 12	Parcel # 12, LEONARD, Added Drive & Rt. At Sta. 373+00 Rt. Per Revised Design & C.O. # 6050	11-21-83	B.A.M.	LWB
16	4	Parcel # 3 JONES, Changed Rem. From 0.69 A± To 0.84 A± Per C.O. # 6095	11-30-83	B.A.M.	LWB
17	11	PARCEL # 6 HATTAT, REVISED DRIVE AT REV STA. 361+48 RT. PER C.O. # 6096	12-12-83	DEM	PN
18	4, 10, 11	PARCEL # 2 DAVIS, Deleted MARY B. FROM TITLE. PER C.O. # 6137	2-3-84	DEM	PN
19	7, 11	PARCEL # 10 CHELO + LORENTI, Revised Title From CHELO, JAMES & ROSE; LORENTI, PATRICK & ANNE TO CHELO, JAMES & ROSE; LORENTI, ANNE; PATRICK LORENTI, Est; ANNE LORENTI, EXECUTRIX PER C.O. # 6138	2-3-84	DEM	PN
20	4, 11	Parcel # 3A JONES, Revised Slope At Sta. Rev. 355+23 Rt. ~ Rev. 358+83 Rt. 0.35 A± To Rev. 355+75 Rt. ~ Rev. 358+83 Rt. 0.28 A± Deleted Const. Ease. (T) Rev. 357+00 Rt. ~ Rev. 358+00 Rt. Per Revised Design & C.O. # 6152	2-21-84	B.A.M.	LWB
21	12	PARCEL # 13 Zachere, Added Parking At Sta. 379+00 Lt. Per C.O. # 6241	7-31-84	DEM	LWB
22	10	Parcel # 1 KEIL, Added SAVE To 24" R Rt Sta. 353+00 Rt. Per Revised Design & C.O. # 6264	9-12-84	B.A.M.	LWB
23	6, 11	Parcel # 6 HATTAT, Added Conc. Slope & Rt. To Install (T) At Sta. 360+76 Rt. ~ 361+36 Rt. Per Revised Design & C.O. # 6210 Plans Given To Design 12-7-84 mm	9-12-84	B.A.M.	LWB

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
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PRESENT R.O.W.
TAKING WITHOUT ACCESS
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(P) PERMANENT EASEMENT
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LEGEND
CONST. EASE.
CONST. EASEMENT
SR SR SLOPE RIGHTS
P L P' L PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT POWNAL
NO. F 019-1(20)S
SHEET 12 OF 104

ROW

BRUNING 44-131 40992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
6	HATTAT, MILTON R. & HELEN M.	11	REV. 361+36 RT.	REV. 362+24 RT.	0.04 A±			WD	9-28-84	POWNAL	79	114	(1800 S.F.±)
			REV. 361+36 RT.	REV. 362+24 RT.		2.84 A±							
			REV. 361+48 RT.				DRIVE (T)						16'GRAVEL M.P.06.84 (IN COMMON WITH PARCEL 5)
													DRIVE PERMIT DATE:
			REV. 361+10 RT.	REV. 362+38 RT.			SLOPE (T) (0.08 A±)						(3400 S.F.±)
			REV. 361+85 RT.	REV. 362+00 RT.			CULVERT (P)						
			REV. 362+00 RT.				DITCH & DRAINAGE (P)						
			REV. 362+00 RT.	REV. 362+18 RT.			CULVERT (P)						
			REV. 359+25 LT.±	REV. 361+67 RT.±			ALL R. T. & I.						WATERLINE
			REV. 361+67 RT.				ALL R. T. & I.						SPRING BOX
													WATERLINE
			REV. 361+48 RT.±	REV. 361+67 RT.±									(560 S.F.±)
			REV. 361+00 RT.	REV. 362+00 RT.			DITCH (P) (0.01 A±)						
			REV. 361+04 RT.	REV. 361+40 RT.			CULVERT (T)						
			REV. 360+96 RT.	REV. 361+36 RT.			INSTALL (T)						CONCRETE STEPS
7A	FOSTER, JOHN C. & RUTH E.	11	REV. 362+67 LT.	REV. 366+19 LT.	0.16 A±			WD	8-14-8	POWNAL	78	524	
			REV. 361+70 LT.	REV. 366+15 LT.		1.84 A±							
			REV. 361+70 LT.	REV. 362+85 LT.			SLOPE (T) (0.03 A±)						(1320 S.F.±)
			REV. 361+70 LT.	REV. 362+90 LT.			CONST. EASE. (T) (0.03 A±)						(1100 S.F.±)
			REV. 362+94 LT.				DRIVE (T)						14' PAVED M.P. 06.87
													DRIVE PERMIT DATE:
			REV. 363+83 LT.	REV. 365+00 LT.			SLOPE (T) (0.04 A±)						(1870 S.F.±)
			REV. 364+24 LT.				DRIVE (T)						12' PAVED - M.P. 06.90
													DRIVE PERMIT DATE:
			REV. 365+00 LT.	REV. 366+15 LT.			SLOPE (P) (0.07 A±)						(2910 S.F.±)
			REV. 365+00 LT.	REV. 366+11 LT.			CONST. EASE. (T) (0.02 A±)						(900 S.F.±)
			REV. 359+25 LT.±	REV. 363+25 LT.±			ALL R. T. & I.						WATERLINE
			REV. 363+55 LT.	REV. 363+60 LT.									CONC. STEPS & CONC. WALK
			REV. 364+23 LT.										CONC. WALL
			REV. 363+08 LT.	REV. 364+15 LT.									HEDGE ROW
			REV. 364+10 LT.	REV. 364+20 LT.									CONC. STEPS
7B			REV. 361+67 LT.	REV. 366+23 LT.	0.26 A±		ALL R. T. & I.						HWY. EASE U.S. RTE. 7
				TOTAL	0.42 A±	1.84 A±							
8A	HATTAT, WILLIAM H. & FLORENCE I.	11	REV. 361+96 RT.	REV. 365+06 RT.	0.18 A±			WD	7-9-84	POWNAL	78	399	
			REV. 362+24 RT.	REV. 365+06 RT.		1.50 A±							
			REV. 362+24 RT.	REV. 363+50 RT.			SLOPE (T) (0.04 A±)						(1710 S.F.±)
			REV. 364+62 RT.				DRIVE (T)						20' GRAVEL M.P. 06.91
													DRIVE PERMIT DATE:
			REV. 359+25 LT.±	REV. 361+67 RT.±			ALL R. T. & I.						WATERLINE
			REV. 361+67 RT.±	REV. 363+00 RT.±									WATERLINE
			REV. 362+60 RT.	REV. 363+30 RT.									GARDEN
			REV. 361+67 RT.				ALL R. T. & I.						SPRING BOX

PARCEL 8 CONTINUED ON FOLLOWING SHEET

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
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(D) — DEMOLITION OR REMOVAL
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PRESENT R.O.W.
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TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT POWNAL
NO. F019-1(20)S
SHEET 13 OF 104

BRUNING 44-137-40992

ROW

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
	PARCEL 8 CONTINUED FROM PREVIOUS SHEET												
8B	HATTAT, WILLIAM H. & FLORENCE I.	11	REV. 362+01 LT.	REV. 365+05 RT.	0.17 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.35 A±	1.50 A±							
9A	FORGIER, JOHN E. & THERESA C.	11	REV. 365+05 RT	REV. 368+22 RT.	0.14 A±			WD	7-12-84	POWNAL	78	415	
			REV. 365+06 RT	REV. 368+22 RT.		1.19 A±							
			REV. 365+55 RT				DRIVE (T)						28' GRAVEL M.P. 06.92
													DRIVE PERMIT DATE:
			REV. 365+91 RT.				DRIVE (T)						16' GRAVEL M.P. 06.93
													DRIVE PERMIT DATE:
			REV. 366+75 RT.	REV. 368+25 RT.			SLOPE (T) (0.05 A±)						(1960 S.F.±)
			REV. 359+25 LT.±	REV. 366+85 RT.±			ALL R. T. & I.						WATERLINE
			REV. 366+90 RT.	REV. 368+30 RT.			CONST. EASE. (T) (0.03 A±)						(1300 S.F.±)
			REV. 367+05 RT.	REV. 367+15 RT.									STONE WALL
			REV. 367+00 RT.	REV. 367+06 RT.			CUL., DIT., & DR. (P)						
9B			REV. 365+02 RT	REV. 368+18 RT.	0.18 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
			REV. 366+55 RT										SIGNS
				TOTAL	0.32 A±	1.19 A±							
10A	CARLO, JAMES & ROSE	11,12	REV. 366+15 LT.	REV. 369+64 LT.	0.10 A±			WD		POWNAL			
	LORENTI, ANNE		REV. 366+15 LT.	REV. 369+64 LT.		2.40 A±		COND.	9-20-84		79	50-56	
	LORENTI, PATRICK- ESTATE OF		REV. 366+10 LT.	REV. 369+60 LT.			CONST. EASE. (T) (0.08 A±)						(3550 S.F.±)
	LORENTI, ANNE- EXECUTRIX		REV. 366+12 LT.	REV. 368+37 LT.			SLOPE (T) (0.07 A±)						(3250 S.F.±)
			REV. 367+07 LT.				DRIVE (T)						14' GRAVEL M.P. 06.95
													DRIVE PERMIT DATE:
			REV. 368+55 LT.	REV. 369+64 LT.			SLOPE (P) (0.03 A±)						(1150 S.F.±)
10B			REV. 366+19 LT.	REV. 369+72 LT.	0.20 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
			REV. 366+20 LT.±	REV. 369+70 LT.±			ALL R. T. & I.						WATERLINE
				TOTAL	0.30 A±	2.40 A±							
11	GAGNON, RICHARD R. & GRACE E.	12	REV. 369+64 LT.	REV. 373+15 LT.	0.20 A±		ALL R. T. & I.	WD	8-8-84	POWNAL	78	494	HWY. EASE. U.S. RTE. 7
			REV. 369+58 LT.	REV. 370+32 LT.			CONST. EASE. (T) (0.01 A±)						(500 S.F.±)
			REV. 369+60 LT.	REV. 369+92 LT.			SLOPE (P) (105 S.F.±)						
			REV. 371+27 LT.				DRIVE (T)						14' PAVED M.P. 07.03
													DRIVE PERMIT DATE:
			REV. 372+55 LT.	REV. 373+07 LT.			CONST. EASE. (T) (400 S.F.±)						
			REV. 359+25 LT.±	REV. 373+10 LT.±			ALL R. T. & I.						WATERLINE

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE.
CONST. EASEMENT
SR SR SLOPE RIGHTS
P/L P/L PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT POWNAL
NO. F019-1(20)S
SHEET 14 OF 104

ROW

BRUNING 44 (11 2090)

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
12A	LEONARD, TRUMAN F. & LOIS A.	12	REV. 370 + 27 RT.	REV. 374 + 24 RT.	0.37 A±			WD	8-8-84	POWNAL	78	499	
			REV. 370 + 31 RT.	REV. 374 + 24 RT.		6.30 A±							
			REV. 370 + 31 RT.	REV. 374 + 24 RT.			SLOPE (T) (0.23 A±)						
			REV. 370 + 34 RT.	REV. 374 + 24 RT.			CONST. EASE. (T) (0.09 A±)						(4040 S.F.±)
			REV. 370 + 74 RT.				CUL. DIT. & DR. (P)						
			REV. 373 + 98 RT.				CUL. DIT. & DR. (P)						
			REV. 373 + 00 RT.				DRIVE (T)						14' GRAVEL M.P. 07.06 DRIVE PERMIT DATE
12B			REV. 370 + 24 LT.	REV. 374 + 24 RT.	0.23 A±		ALL R.T. & I.						HWY. EASE. US. RTE. 7
				TOTAL	0.60 A±	6.30 A±							
13A	DELETED												
13B	ZACHER, RICHARD M. (LESSOR) ROCK MAPLE GIFT SHOP (LESSEE)	12	REV. 373 + 07 LT.	REV. 375 + 72 LT.	0.16 A±		ALL R.T. & I.	OPT.	7-12-84	POWNAL	79	233	HWY. EASE. US. RTE. 7 (1000 S.F.±)
			REV. 373 + 05 LT.	REV. 374 + 30 LT.			CONST. EASE. (T) (0.02 A±)						
			REV. 373 + 78 LT.	REV. 374 + 12 LT.			SLOPE (T) (40 S.F.±)						
			REV. 374 + 55 LT.				DRIVE (T)						30' GRAVEL M.P. 07.09 DRIVE PERMIT DATE:
			REV. 375 + 25 LT.				DRIVE (T)						30' GRAVEL M.P. 07.11 DRIVE PERMIT DATE:
			REV. 359 + 25 LT.±	REV. 375 + 72 LT.±			ALL R.T. & I.						WATERLINE
			REV. 373 + 60 RT.	REV. 375 + 30 RT.			ALL R.T. & I.						PARKING AREA
				TOTAL	0.16 A±	16.69 A±							
14A	BESHARA, JOANNE M.	12	REV. 374 + 24 RT.	REV. 379 + 25 RT.	0.31 A±			WD	8-14-84	POWNAL	78	519	
			REV. 374 + 24 RT.	REV. 379 + 25 RT.		5.87 A±							
			REV. 374 + 24 RT.	REV. 377 + 50 RT.			SLOPE (T) (0.12 A±)						
			REV. 374 + 24 RT.	REV. 378 + 30 RT.			CONST. EASE. (T) (0.08 A±)						(3700 S.F.±)
			REV. 375 + 00 RT.				DRIVE (T)						20' GRAVEL M.P. 07.10 DRIVE PERMIT DATE:
			REV. 375 + 55 RT.				CUL. DIT. & DR. (P)						
14B			REV. 374 + 24 RT.	REV. 379 + 18 RT.	0.28 A±		ALL R.T. & I.						HWY. EASE. US. RTE. 7
				TOTAL	0.59 A±	5.87 A±							

TABLE OF REVISIONS

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MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT POWNAL
NO. F019-1(20)S
SHEET 15 OF 104

ROW

BRUNING 44 131 40992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
15A	ZACHER, LINDA M. & RICHARD M.	12	REV. 376+83 LT. REV. 375+72 LT. REV. 375+87 LT.	REV. 379+18 LT. REV. 379+15 LT.	0.03 A±	1.97 A±	DRIVE (T)	OPT.	7-12-84	POWNAL	79	237	(1200 S.F.±) 16' GRAVEL M.P. 07.12 DRIVE PERMIT DATE: WATERLINE
			REV. 359+25 LT.±	REV. 375+90 LT.±			ALL R. T. & I.						
15B			REV. 375+72 LT.	REV. 379+25 RT.	0.20 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.23 A±	1.97 A±							
16	DELETED												FORMERLY BAKER, REGINALD
17	CENTRAL VERMONT PUBLIC SERVICE CORP.												UTILITY
18	NEW ENGLAND TELEPHONE & TELEGRAPH												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

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DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

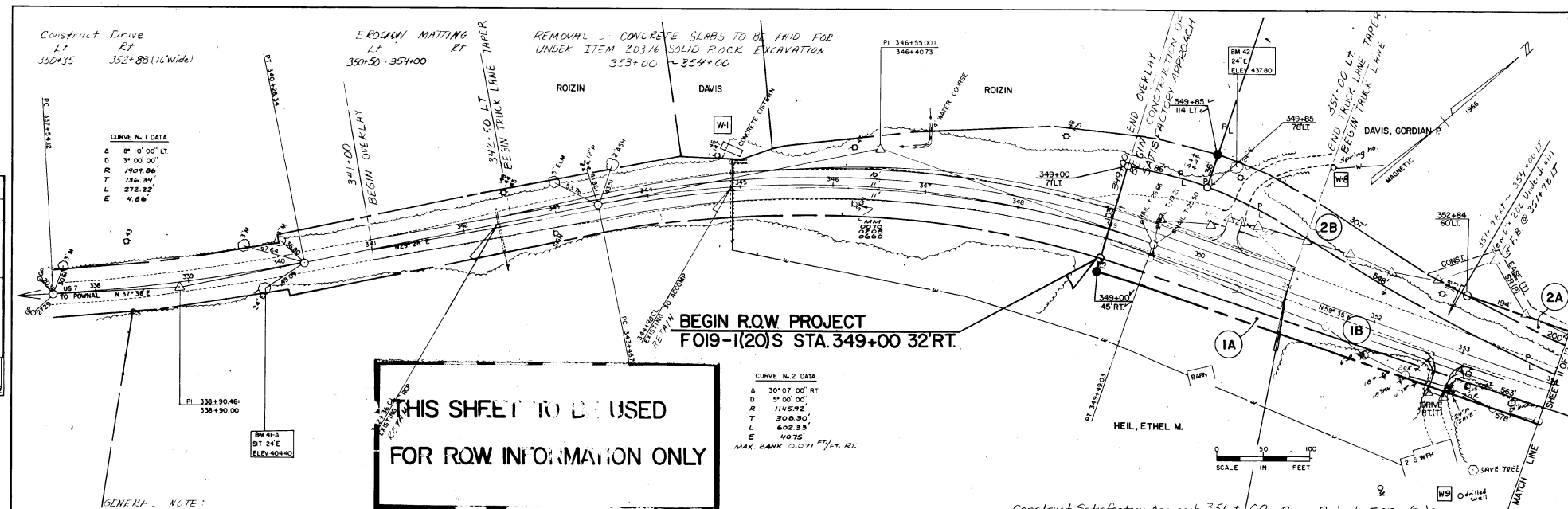
LEGEND
CONST. EASE.
CONS'T. EASEMENT
SR SR SLOPE RIGHTS
P/L P/L PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

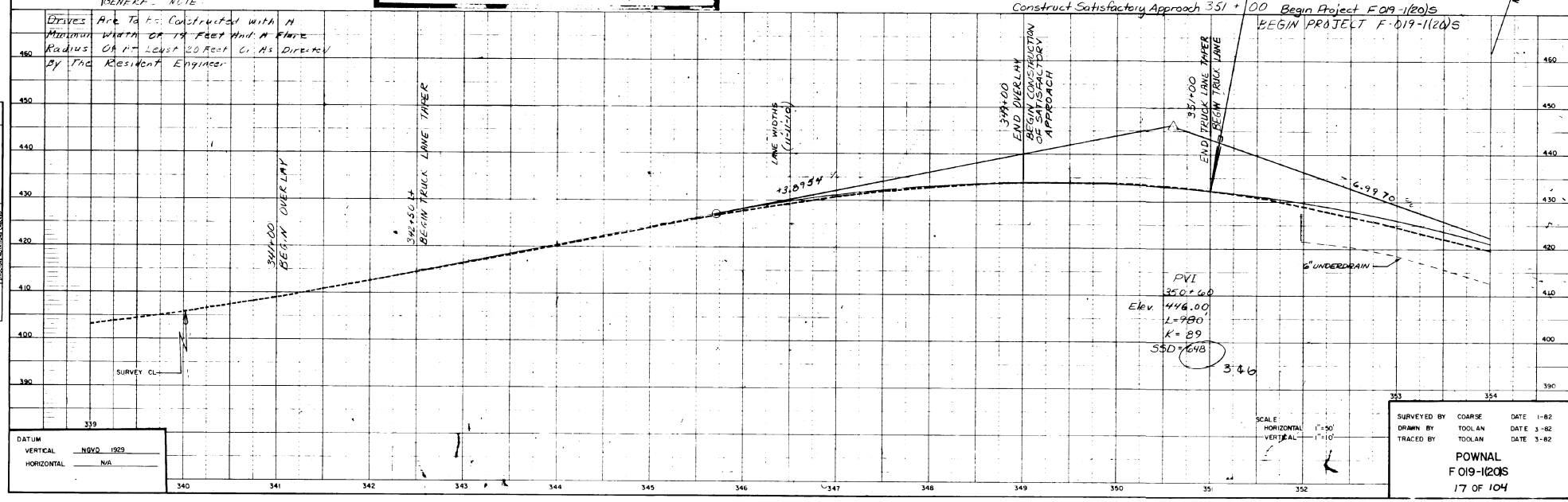
PROJECT POWNAL
NO. F019-1(20)S
SHEET 16 OF 104

ROW

BRUNING 44 (31-6092)



GENERAL NOTE:
Drives Are To Be Constructed With A Minimum Width Of 14 Feet And A Flare Radius Of At Least 20 Feet Or As Directed By The Resident Engineer

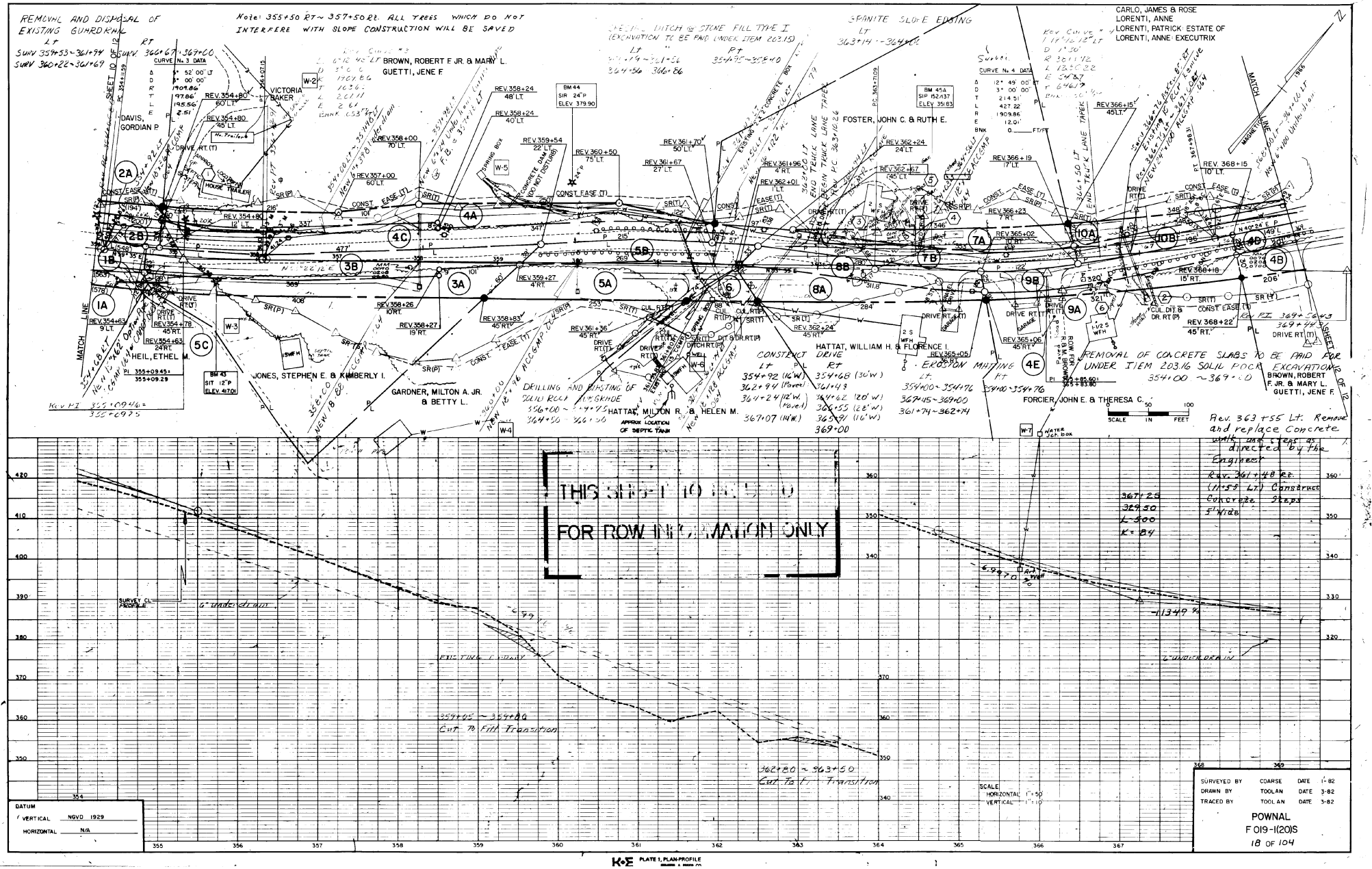


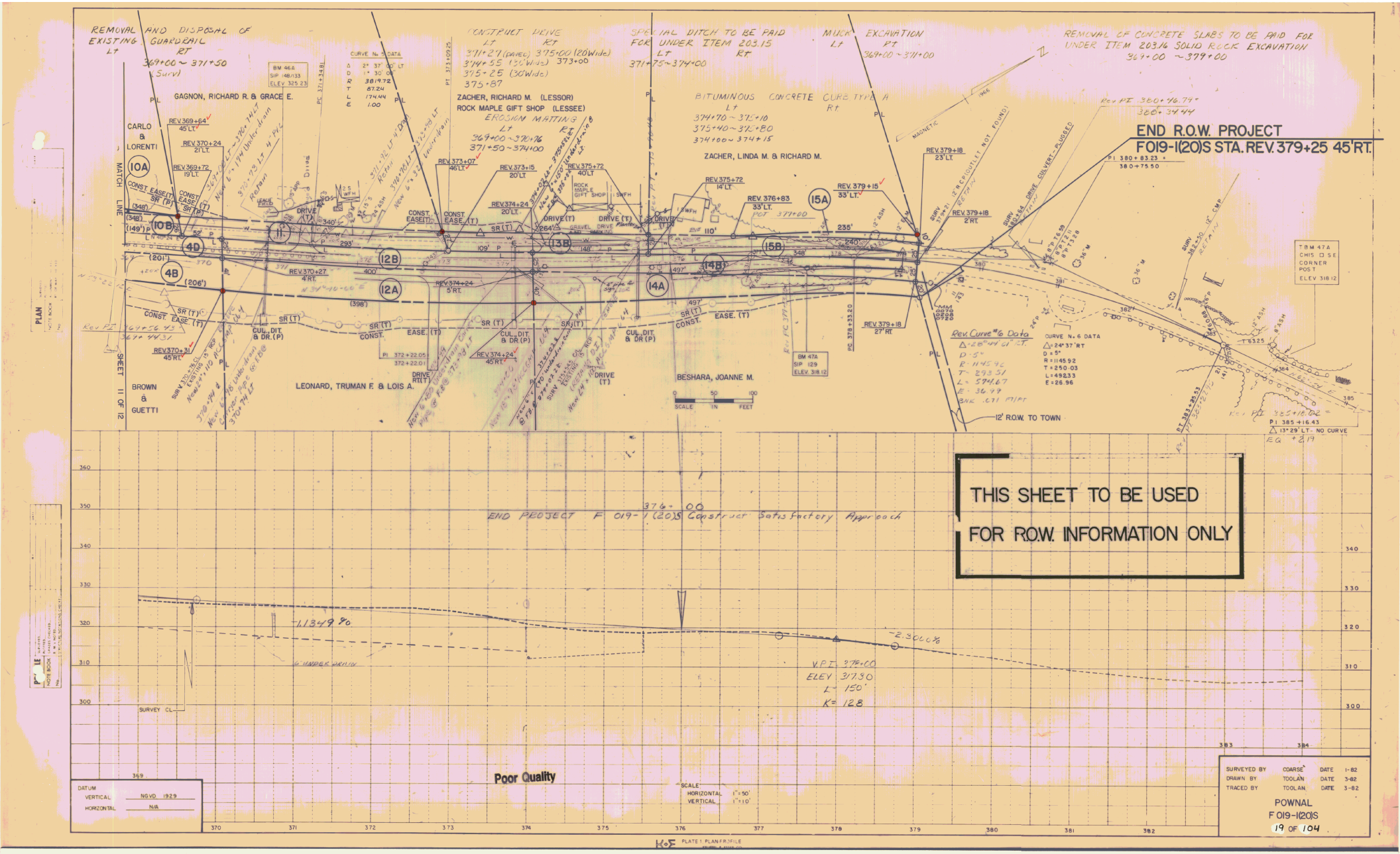
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

SURVEYED BY	COARSE	DATE	1-82
DRAWN BY	TOOLAN	DATE	3-82
TRACED BY	TOOLAN	DATE	3-82

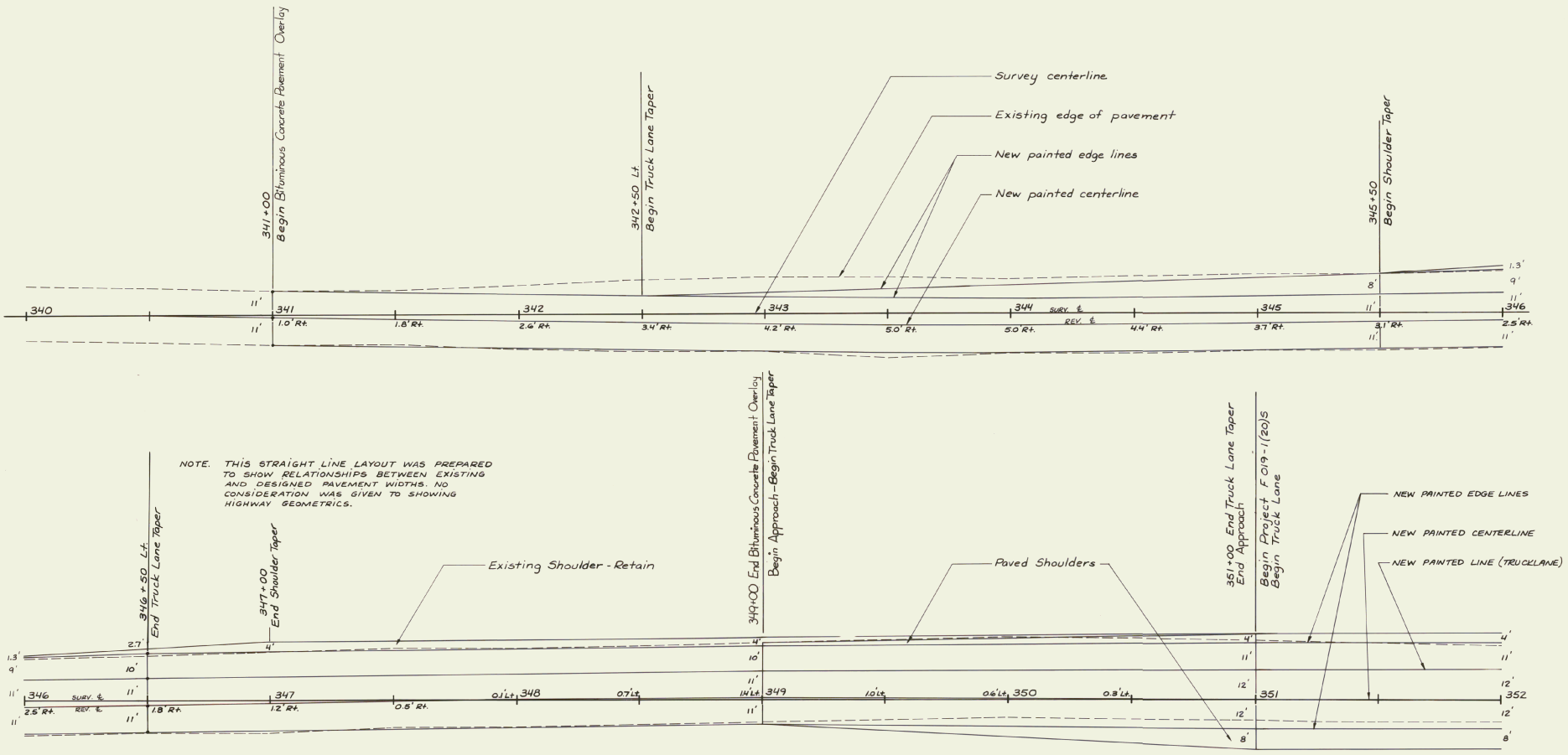
POWNAL
F 019-1(20)S
17 OF 104

PLATE 1 PLAN PROFILE


REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Note: 355+50 RT ~ 357+50 RT. ALL TREES WHICH DO NOT INTERFERE WITH SLOPE CONSTRUCTION WILL BE SAVED
GRANITE SLOPE EDGING
CARLO, JAMES & ROSE
LORENTI, ANNE
LORENTI, PATRICK ESTATE OF
LORENTI, ANNE EXECUTRIX
BROWN, ROBERT F. JR. & MARY L.
GUETTI, JENE F.
VICTORIA BAKER
DAVIS, GORDIAN P.
FOSTER, JOHN C. & RUTH E.
HEIL, ETHEL M.
JONES, STEPHEN E. & KIMBERLY I.
GARDNER, MILTON A. JR. & BETTY L.
HATTAT, MILTON R. & HELEN M.
HATTAT, WILLIAM H. & FLORENCE I.
FORCIER, JOHN E. & THERESA C.
BROWN, ROBERT F. JR. & MARY L.
GUETTI, JENE F.
CONSTRUCT DRIVE
EROSION MATTING
DRILLING AND BLASTING OF SOLID ROCK SUBGRADE
APPROX LOCATION OF SEPTIC TANK
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION
Rev. 363+55 Lt. Remove and replace Concrete walk and steps as directed by the Engineer
Rev. 361+48 Rt. (11+55 Lt.) Construct Concrete Steps 5' Wide
THIS SHEET TO BE USED FOR ROW INFORMATION ONLY
SURVEY CL PROFILE
6" underdrain
EXISTING GRADE
359+05 ~ 359+80 Cut To Fill Transition
362+80 ~ 363+50 Cut To Fill Transition
-11349 %
6" UNDERDRAIN
SCALE HORIZONTAL 1"=50' VERTICAL 1"=10'
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
F 019-1(20)S
18 OF 104
K+E PLATE 1, PLAN-PROFILE



REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Lt RT
369+00 ~ 371+50
(Surv)
CONSTRUCT DRIVE
Lt RT
371+27 (PAVED) 375+00 (20' Wide)
374+55 (30' Wide) 373+00
375+25 (30' Wide)
375+87
SPECIAL DITCH TO BE PAID FOR UNDER ITEM 203.15
Lt RT
371+75 ~ 374+00
MUCK EXCAVATION
Lt Rt
369+00 ~ 371+00
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION
369+00 ~ 379+00
GAGNON, RICHARD R. & GRACE E.
CARLO & LORENTI
ZACHER, RICHARD M. (LESSOR)
ROCK MAPLE GIFT SHOP (LESSEE)
EROSION MATTING
Lt Rt
369+00 ~ 370+76
371+50 ~ 374+00
BITUMINOUS CONCRETE CURB TYPE A
Lt Rt
374+70 ~ 375+10
375+40 ~ 375+80
374+00 ~ 374+15
ZACHER, LINDA M. & RICHARD M.
END R.O.W. PROJECT
F019-1(20)S STA. REV. 379+25 45' RT.
MATCH LINE
SHEET 11 OF 12
BROWN & GUETTI
LEONARD, TRUMAN F. & LOIS A.
BESHARA, JOANNE M.
12' R.O.W. TO TOWN
Rev. Curve #6 Data
CURVE No. 6 DATA
TBM 47A CHIS □ SE CORNER POST ELEV 318.12
THIS SHEET TO BE USED FOR R.O.W. INFORMATION ONLY
376+00
END PROJECT F 019-1(20)S Construct Satisfactory Approach
-1.1349%
-2.3000%
V.P.I. 378+00
ELEV 317.30
L = 150'
K = 12.8
SURVEY CL.
Poor Quality
SCALE
HORIZONTAL 1" = 50'
VERTICAL 1" = 10'
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
F 019-1(20)S
19 OF 104
PLATE 1 PLAN PROFILE



PAVEMENT MARKINGS
AND
BITUMINOUS CONCRETE PAVEMENT OVERLAY DETAILS

341+00 ~ 349+00

1/2" Leveling Course (Est. Average Depth)

3/4" Bituminous Concrete Pavement Overlay

Scale in Feet

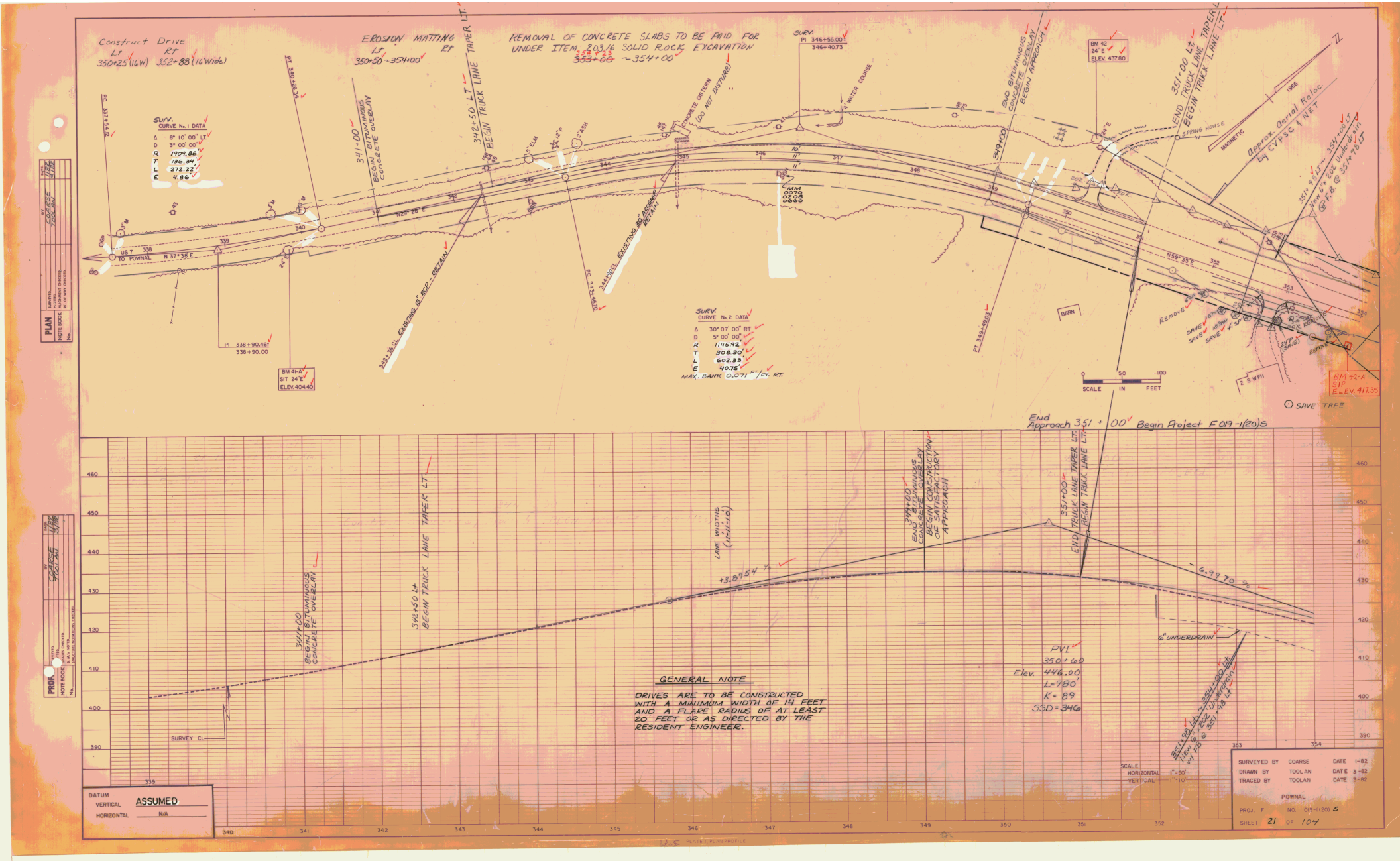
20 10 0 20 40 60 80 100

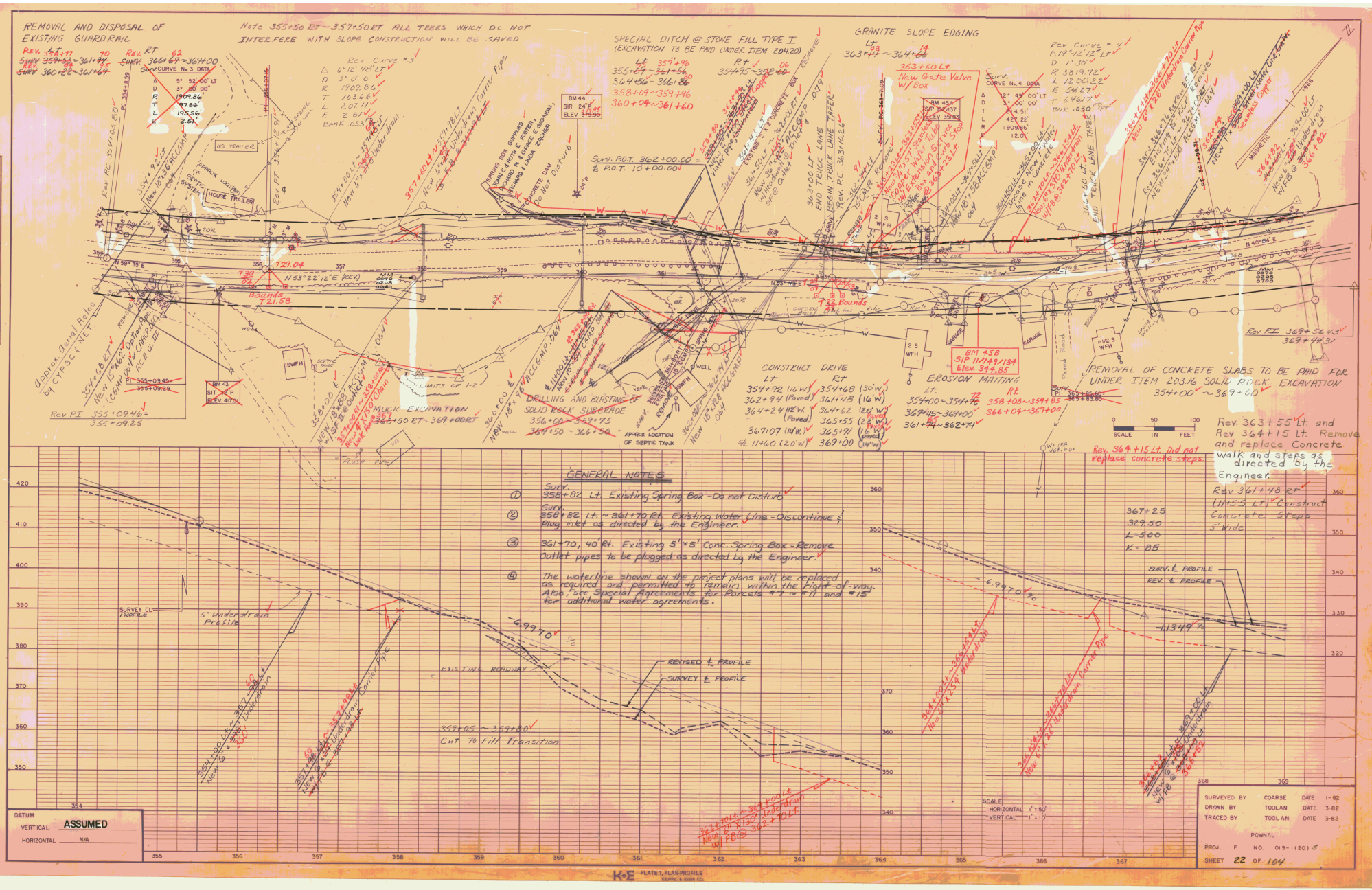
SURVEYED BY _____ DATE _____
DRAWN BY HODGE DATE MAY '83
TRACED BY SHANGRAW DATE JUNE '83

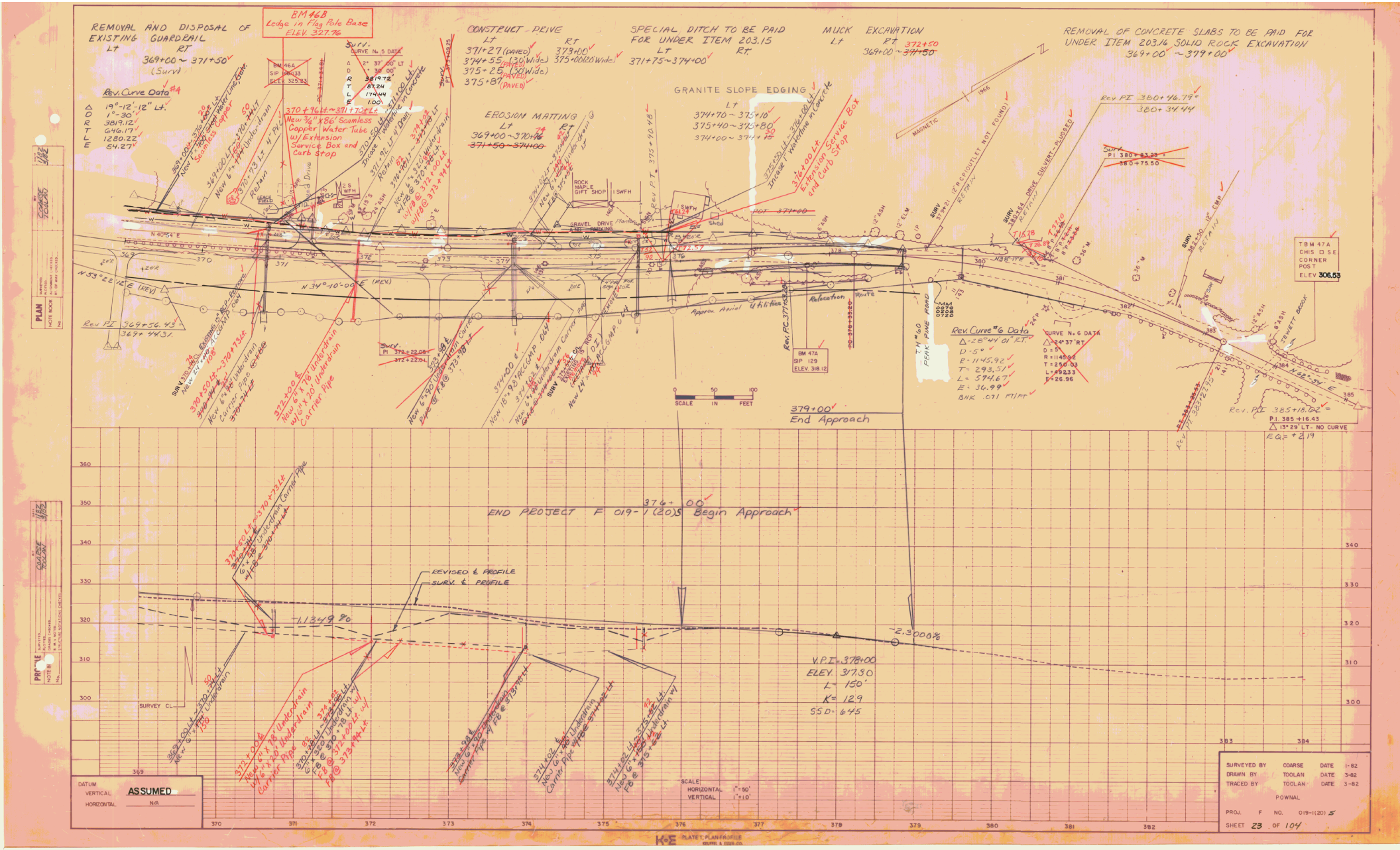
POWNAL

PROJ. F NO. 019-1(20)S

SHEET 20 OF 104


Construct Drive
Lt
350+25 (16W)
Rt
352+88 (16' Wide)
EROSION MATTING
Lt
350+50 - 354+00
Rt
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203/6 SOLID ROCK EXCAVATION
353+66 - 354+00
342+50 Lt
BEGIN TRUCK LANE TAPER LT.
341+00
BEGIN BITUMINOUS CONCRETE OVERLAY
SURV.
CURVE No. 1 DATA
Δ 8° 10' 00" LT
D 3° 00' 00"
R 1909.86'
T 136.34'
L 272.22'
E 4.86'
PC 337+54.12
PT 340+26.34
PI 338+90.46
338+90.00
BM 41-A
SIT 24'E
ELEV. 404.40
US 7
TO POWNAL
N 37° 38' E
S 29° 28' E
EXISTING 18" RCP - RETAIN
EXISTING 30" ASCAP - RETAIN
CONCRETE CISTERN (DO NOT DISTURB)
WATER COURSE
SURV.
PI 346+55.00
346+40.73
END BITUMINOUS CONCRETE OVERLAY
BEGIN APPROACH
349+00
PT 349+49.03
PC 345+49.52
SURV.
CURVE No. 2 DATA
Δ 30° 07' 00" RT
D 5° 00' 00"
R 1145.92'
T 306.30'
L 602.33'
E 40.75'
MAX. BANK 0.071 FT/FT. RT.
BARN
BM 42
24' E
ELEV. 437.80
351+00 Lt
END TRUCK LANE TAPER LT.
BEGIN TRUCK LANE LT.
SPRING HOUSE
MAGNETIC
1965
Approx. Aerial Reloc by CVFSC INET
351+98 Lt - 354+00 Lt
Vert 6" EOZ Underdrain @ 6' & @ 357+78 LT
REMOVE
SAVE 18"PINE
SAVE 4" SPR
2 S WPH
SCALE IN FEET
0 50 100
BM #2-A
SIT
ELEV. 417.35
SAVE TREE
End Approach 351 + 00
Begin Project F 019-1(20)S
LANE WIDTHS (1'-1'-1'-1')
+3.89 %
-6.99 %
PVI
350+60
Elev. 446.00
L=780'
K=89
SSD=346
6" UNDERDRAIN
GENERAL NOTE
DRIVES ARE TO BE CONSTRUCTED WITH A MINIMUM WIDTH OF 14 FEET AND A FLARE RADIUS OF AT LEAST 20 FEET OR AS DIRECTED BY THE RESIDENT ENGINEER.
SURVEY CL
DATUM
VERTICAL ASSUMED
HORIZONTAL N/A
SCALE
HORIZONTAL 1"=50'
VERTICAL 1"=10'
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
PROJ. F NO. 019-1(20) S
SHEET 21 OF 104
PLAN
PROF.
COARSE
TOOLAN

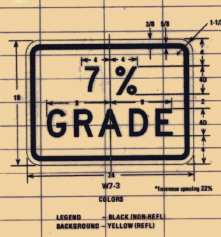

REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Note 355+50 RT ~ 357+50 RT ALL TREES WHICH DO NOT INTERFERE WITH SLOPE CONSTRUCTION WILL BE SAVED
SPECIAL DITCH @ STONE FILL TYPE I (EXCAVATION TO BE PAID UNDER ITEM 204.20)
GRANITE SLOPE EDGING
363+60 Lt. New Gate Valve W/ Box
Surv. P.O.T. 362+00.00 = ℄ P.O.T. 10+00.00
CONSTRUCT DRIVE
EROSION MATTING
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION 354+00 ~ 369+00
MUCK EXCAVATION 368+50 RT ~ 369+00 RT
DRILLING AND BLASTING OF SOLID ROCK SUBGRADE 356+00 ~ 359+75 364+50 ~ 366+50
APPROX LOCATION OF SEPTIC TANK
Approx. Aerial Reloc by CYPSC & NET
Rev PI 355+09.46 = 355+09.25
Rev PI 369+56.43 369+44.31
Rev. 363+55 Lt. and Rev 364+15 Lt. Remove and replace Concrete walk and steps as directed by the Engineer.
Rev 364+15 Lt. Did not replace concrete steps.
Rev 361+48 Rt (11+55 Lt) Construct Concrete Steps 5' Wide
GENERAL NOTES
① Surv. 358+82 Lt. Existing Spring Box - Do not Disturb
② Surv. 358+82 Lt. ~ 361+70 Rt. Existing Water Line - Discontinue & Plug inlet as directed by the Engineer.
③ 361+70, 40' Rt. Existing 5'×5' Conc. Spring Box - Remove Outlet pipes to be plugged as directed by the Engineer.
④ The waterline shown on the project plans will be replaced as required and permitted to remain within the right-of-way. Also, see Special Agreements for Parcels #7 ~ #11 and #15 for additional water agreements.
SURVEY CL PROFILE
6" Underdrain Profile
EXISTING ROADWAY
REVISED ℄ PROFILE
SURVEY ℄ PROFILE
359+05 ~ 359+80 Cut To Fill Transition
SURV. ℄ PROFILE
REV. ℄ PROFILE
367+25
329.50
L=500
K=85
-6.9970 %
-1.1349 %
SCALE HORIZONTAL 1" = 50' VERTICAL 1" = 10'
DATUM
VERTICAL ASSUMED
HORIZONTAL N/A
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
PROJ. F NO. 019-1(20)S
SHEET 22 OF 104
K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

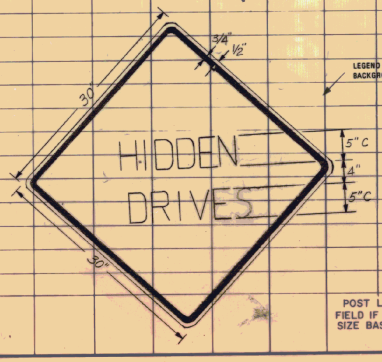


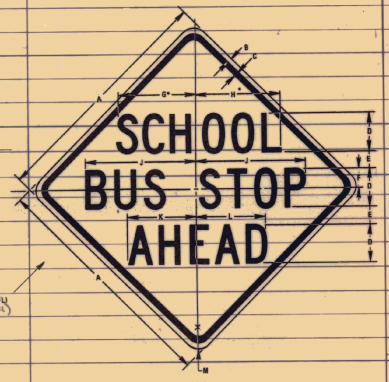
REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Lt RT
369+00 ~ 371+50
(Surv)
Rev. Curve Data #4
Δ 19°-12'-12" Lt.
D 1°-30'
R 3819.12
T 646.17
L 1280.22
E 54.27
BM 46B
Ledge in Flag Pole Base
ELEV. 327.76
BM 46A
SIP 28.33
ELEV. 325.83
Surv. CURVE No. 5 DATA
Δ 2° 37' 00" LT
D 1° 30' 00"
R 3819.72'
T 87.24
L 174.44
E 1.00
370+96 Lt. ~ 371+70 Lt.
New 3/4" x 86' Seamless Copper Water Tube w/ Extension Service Box and Curb Stop
CONSTRUCT DRIVE
Lt RT
371+27 (PAVED) 373+00
374+55 (30' Wide) 375+00 (20' Wide)
375+25 (30' Wide)
375+87 (PAVED)
EROSION MATTING
Lt RT
369+00 ~ 370+76
371+50 ~ 374+00
SPECIAL DITCH TO BE PAID FOR UNDER ITEM 203.15
Lt RT
371+75 ~ 374+00
GRANITE SLOPE EDGING
Lt
374+70 ~ 375+10
375+40 ~ 375+80
374+00 ~ 374+15
MUCK EXCAVATION
Lt RT
369+00 ~ 372+50
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION
369+00 ~ 379+00
Rev PI 380+46.79 = 380+34.44
Surv. PI 380+83.23 = 380+75.50
TBM 47A
CHIS □ S.E. CORNER POST
ELEV 306.53
Rev PI 369+56.43 = 369+44.31
N 53°22'12" E (REV)
N 34°-10'-00" E (REV)
N 40°54' E
N 38°-11' E
N 62°-54' E
Rev. PI 385+18.02 = P.I. 385+16.43
Δ 13°29' LT - NO CURVE
EQ = +2.19
Rev. Curve #6 Data
Δ -28°44'01" RT.
D -5°
R - 1145.92
T - 293.51
L - 574.67
E - 36.99
BNK .071 FT/FT
CURVE No. 6 DATA
Δ 24°37' RT
D = 5°
R = 1145.92
T = 250.03
L = 492.33
E = 26.96
BM 47A
SIP 129
ELEV. 318.12
Approx. Aerial Utilities Relocation Route
PEAK PINE ROAD
MAGNETIC 1966
SCALE IN FEET
379+00
End Approach
376+00
END PROJECT F 019-1(20)S Begin Approach
REVISED ℄ PROFILE
SURV. ℄ PROFILE
-1.1349%
-2.3000%
V.P.I. 378+00
ELEV. 317.30
L = 150'
K = 129
SSD = 645
SURVEY CL.
SCALE
HORIZONTAL 1" = 50'
VERTICAL 1" = 10'
DATUM
VERTICAL ASSUMED
HORIZONTAL N/A
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
PROJ. F NO. 019-1(20) S
SHEET 23 OF 104
PLATE 1, PLAN-PROFILE

TRAFFIC SIGN SUMMARY SHEET-TYPE A SIGNS

MILEMARKER, STATION OR SIGN NUMBER	LEGEND	TYPE	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (S.F.)	EXISTING SIGNS TO BE SALVAGED: RETAIN (X)	NEW AND SALVAGED SIGNS (S.F.): NEW "A"	NEW AND SALVAGED SIGNS (S.F.): SALVAGED "A"	NEW AND SALVAGED SIGNS (S.F.): NEW "B"	NEW AND SALVAGED SIGNS (S.F.): SALVAGED "B"	EXISTING POSTS: RETAIN	EXISTING POSTS: DRILL	EXISTING POSTS: SALV.	NEW POSTS: NUMBER OF POSTS	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.0 LB./FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.5 LB./FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 3.0 LB./FT.	NEW POSTS: TYPE "C" (ALUMINUM) 3" Ø	NEW POSTS: TYPE "C" (ALUMINUM) 3" □	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø MOD.	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø	NEW POSTS: TYPE "B" BR'KAWAY STEEL	REMARKS	FOR SIGN DETAIL SEE SHEET OR STANDARD SHEET NUMBER
342+95 Rt.		A	30" x 30"	6.3																			
342+95 Rt.	40 MPH	A	18" x 18"	~~2~~ 3																			
346+25 Rt. New Sign @ 346+30 Rt.	HIDDEN DRIVES	A	30" x 30"	6.3		6.3							1	X									See Detail
~~346+25~~ 346 Rt. New Sign @ ~~344+30~~ 344+30 Rt.	SCHOOL BUS STOP AHEAD	A	30" x 30"	6.3		6.3							1	X									See Detail
346+50 Lt.	TRUCK LANE ENDS	A	24" x 30"			5.0							1	X									E-15A
~~350+70~~ 348+00 Rt.		A	30" x 30"			6.3							1	X									E-19B
~~350+70~~ 348+00 Rt.	7% GRADE	A	24" x 18"			3.0																	See Detail
354+00 Lt.		A	30" x 30"			6.3							1	X									E-19A
362+~~60~~ 35 Lt.	SLOWER TRAFFIC KEEP RIGHT	A	24" x 30			5.0							1	X									E-15A
366+~~60~~ 65 Rt.		A	18" x 24"	3.0																			
367+25 Rt.		A	18" x 24"	3.0																			
368+20 Rt.		A	18" x 24"	3.0																			
~~372+00~~ 371+50 Lt.	TRUCK LANE 500 FEET	A	24" x 30"			5.0							1	X									E-15A
372+00 Rt.	SHOULDER NARROWS	A	36" x 36"			9.0							1				X						E-19A
TOTALS				~~30.2~~ 31.2 sf		52.2 sf							8	~~200~~ 203 lbs		48 lbs							
TOTALS																							







SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
MIN. & STD.	30	1/2	3/4	60	2	2-1/2	10	10-1/2	14	8-1/4	9	1-7/8

* Reduce spacing 13-1/2%.

POST LENGTHS ARE APPROXIMATE. FINAL LENGTHS TO BE DETERMINED IN THE FIELD IF FINAL LENGTHS VARY BY MORE THAN 2 FEET, RECOMPUTE THE POST SIZE BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS.

PREPARED BY JB DATE 12-84
CHECKED BY _____ DATE _____
POWNAL
PROJ. F NO. 019-1(20)5
SHEET 24 OF 104

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Common excav.

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Muck Excavation AREA	Muck Excavation CU.YDS.	Subbase of Gravel (Mod.) AREA	Subbase of Gravel (Mod.) CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.
345+00															
+50															
346+00															
+50															
347+00															
+50															
348+00															
+50															
349+00		94	Butt 174					113	186			C-983 Gr-791			
+50	50	94	203					88	170						
350+00	50	125	279					96	205						
+50	50	176	337					125	230			END APPROACH			
351+00	50	182	323					123	231	BEGIN PROJECT FO19-1(20)s					
+50	50	161	303					126	256						
352+00	50	166	269					151	261						
+50	50	124	621					131	253						
353+00	50	547	606					142	257			C-2636 Gr-1779			
+50	50	108	183					136	248						
354+00	50	90	152					132	250						
+50	50	75	178					138	223						
355+00	50	117	332					103	193						
+50	50	243	527					105	192						
356+00	50	326	826					102	187						
+50	50	566	1144					100	189						
357+00	50	670	1961					104	228 200						
+50	50	1448	2889					121	248			C 1551 Gr- 2216 2158			
358+00	50	1672	3193					147	251						
+50	50	1776	2830					124	230						
359+00	50	1280	1958					124	231						
+50	50	295	350					125	229						
360+00	50	83	136					122	234						
+50	50	64	108					131	245						
361+00	50	53	97					134	258						
+50	50	52	107					145	263						
362+00	50	64	144					139	255						
+50	50	92	114					136	230			C-1829 Gr-2352			
363+00	50	31	92					112	206						
+50	50	68	176					110	204						
364+00	50	122	356					110	231						
+50	50	263	494					139	230						
365+00	50	270	743					105	218						
+50	50	532	677					130	231						
366+00	50	199	347 255					119	219						
+50	50	76						117							
CARRIED FORWARD			1675						668						
COLUMN TOTAL			22639						7948						

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Muck Excavation AREA	Muck Excavation CU.YDS.	Subbase of Gravel (Mod.) AREA	Subbase of Gravel (Mod.) CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.
366+50	50	76	137					117	219						
367+00	50	72	164					120	226						
+50	50	105	165			0		124	237						
368+00	50	73	126			37	34	132	213			2526 C-2478 Gr-2189 Muck-342			
+50	50	68	181			42	73	98	193						
369+00	50	133	211			62	96	110	214						
+50	50	95	167			21	77	121	219						
370+00	50	85	176			46	62	115	219						
+50	50	105	141			76	113	122	219						
371+00	50	47	127			58	124	114	219						
+50	50	90	164			61	110	116	213						
372+00	50	87	205			94	144	110	209						
+50	50	134	277			0	87	116	209			C-1769 Gr-2091 Muck-538			
373+00	50	165	297					117	216						
+50	50	156	222					112	212						
374+00	50	84	106					111	206						
+50	50	30	54					100	195						
375+00	50	28	47					108	193						
+50	50	23	68					106 198 105	198			C-115 Gr-307 895			
376+00	50	50	139					105	183			END PROTECTION FO19-1(20)s			
+50	50	100	213					93	177			BEGIN APPROACH			
377+00	50	120	194					98	166			C-983 Gr-984			
+50	50	80	154					81	154						
378+00	50	86	152					85	159						
+50	50	78	131					87	145						
379+00	50	63	Butt					70	Butt						
+50															
380+00															
CARRIED FORWARD			5493 5705												
COLUMN TOTAL			26657						920 cy						

Total Mainline excav. 27,681.0 c.y.
BK 1, Pg. 22 - Solid Rock excavation = 3,084.2 c.y.
Mainline common excav. 21,596.8 = 21,597 c.y.

419 Drives
983 Begin Approach
21,597 Mainline
4,612 Excav. for Sand Borrow
208 Cut to Fill Transition (Local Drive)
783 End Approach
25,785.0 Total Common excav.

25,785 c.y. to page 16, Bk. 1. MW.T. 1/14/86

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Sand Borrow AREA	Sand Borrow CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.	AREA	CU.YDS.
350+50		0				0									
+50	8	28	4			28	4								
+90	32	48	45			48	45								
Butt +90		111				111									
351+00	10	111	41			111	41	Under C-437 c.y.							
+50	50	130	223			130	223	SB-437 c.y.							
+66	16	133	78			133	78	Add Bleeders 22X5X8 22X2.8X2.5	538 c.y.						
Butt +66		54				54		Under C-977 c.y.							
+75	9	54	18			54	18	SB-977 c.y.							
352+00	25	8	29			8	29								
+05	5	2	1			2	1								
COLUMN TOTAL = (Brought Forward)		439 cy				439 cy									
357+00	50	15	Butt 28			15	Butt 28								
+50	50	15	28			15	28								
358+00	50	15	28			15	28								
+50	50	15	28			15	28	Under C-154 c.y.							
359+00	50	15	28			15	28	SB-154 c.y.							
+50	50	15	28			15	28								
+75	25	15	14			15	14								
COLUMN TOTAL =		154 cy	Butt				Butt 154 cy								
371+90		From Sheet 96 of 104	0				0								
372+00	10	30	6			30	6								
+50	50	30	56			30	56	Under C-180 c.y.							
373+00	50	30	56			30	56	SB-180 c.y.							
+50	50	30	56			30	56								
+60	10	0	6			0	6								
TOTAL U.C. = 811 c.y.			TOTAL SB = 811 cy												
373+00		From Sheet 96 of 104	0				0								
+50	50	50	58			50	58	Additional							
374+00	50	63	148			63	148	Under C-765 c.y.							
+50	50	97	178			97	178	SB-836 c.y.							
375+00	50	95	181			95	206	Add Bleeder 10 W X 3.5' 12' = 16 c.y. 27							
+50	50	100	200			128	226	C-781 c.y.							
	50	116	Butt			116	Butt	SB-832 c.y.							
TOTAL ADDITIONAL U.C. = 781 c.y.						832 cy	=	TOTAL ADD. S.B.							

	Begin Approach	351+00	355+00	360+00	365+00	370+00	375+00	End Approach	CARRIED FORWARD	COLUMN TOTAL
	355+00	360+00	365+00	370+00	375+00	376+00				
Total Excav. Earth & Rock	793	2636	15511	1829	2826	1769	115	983		26657 c.y.
Solid Rock Ex.										3084 c.y.
Muck Ex.					342	578				920 c.y.
Gravel	791	1774	2158	2352	2189	2091	393	989		15,737 17,005 c.y.

PROJECT Pownal - FO19-1(20)s
PROJECT Pownal NO. FO19-1(20)s
SHEET ____ OF ____

25

FINAL DRAINAGE SUMMARY

PREPARED BY [illegible] 11/21/85 PROJECT
CHECKED BY M.W.H. 11/25/85 NO.

STATION	TO STATION	Remarks
342+36		No work done
344+90		No work done
350+50	354+76	
354+68		
354+92		
354+95	358+60	
355+09	357+96	
360+04	361+60	
358+00		
358+08	359+85	
358+82		
358+82	361+70	
358+80	362+44	
359+80±	363+30±	
360+00		
361+93		
361+58	361+80	
361+50	362+00	
361+70		
361+74	362+74	
362+02	362+74	
362+47		
362+44	376+00±	
363+58±		
363+60		
364+03	364+56	
364+50	365+00	
364+56	366+86	
366+09	366+60	
366+76		
366+80	367+00	
366+75	367+00	
367+95	370+76	
370+50	371+00	
370+73		
370+76		
371+50	374+00	
371+75	374+00	
370±76		
371+73±		
371+92		
372+00		NEW 6" Underdrain
374+00		
375+50	376+00	
375+56		
376+00±		
379+21		
380+64		
382+50 & (382+48 RT)		
11+00	& 11+25	

STATION	TO STATION	Water Pipe Galvanized D	Water Pipe Galvanized L	ACCGMP 18"	ACCGMP 24"	ACCGMP 36"	ACCGMP Δ	CGMP Gage TH	CGMP D	CGMP L	CGMP TH	Gate Valve Box	Curb Stop	DI Depth	DI Conc. Class B	DI Rein. Steel	DI Grate A	DI Grate B	Trench Excavation Earth	Trench Excavation Rock	Gran. Bkf. Struc.	Stone Fill Type I	Stone Fill Type II	Gran. Borrow	Eros. Matting	Remarks
342+36																									No work done
344+90																									No work done
350+50	354+76																							141	
354+68								18"	62'									0'							
354+92				44'				64'										0'			0.7'				
354+95	358+60																	103'			103'				
355+09	357+96																	97'			77.0'				
360+04	361+60																	5.2'			64.0'				
358+00				88'				Δ64'						3.0'	1.7'	150'	1'	78'	0'	11.2'	5.9'		33'	59'	
358+08	359+85																				4.0'				
358+82																									Plugged inlet
358+82	361+70																								
358+80	362+44																								
359+80±	363+30±			2"	371'													9.7'	78.4'	15.1'			151'		
360+00				96'				064'						3.0'	1.7'	150'	1'	5.9'	2.6'	11.3'	2.5'	5.9'	25'		
361+93																		11'	34.8				46'		
361+58	361+80																	11'							
361+50	362+00					126'		079'						4.9'	1.7'			178'	7.7'	24.7'		43.8'	85'		
361+70																									Refer to E.W.L. sheet - 8R-V, Pg 21
361+74	362+74																							36'	
362+02	362+74			128'				064'						3.0'	1.7'	150'	1'	5.2'	17.0	19.0			84'		
362+47																		4'							
362+44	376+00±																	67.4'	74.3	58.8			380'		
363+58±				1"	13884																				
363+60				3/4"	143'								1'												
364+03	364+56			58'				064'					1'	3.0'	1.7'	150'	1'	5.1'	2.6'	3.3'					
364+50	365+00														2.2'								19'		
364+56	366+86																	7.5'	0'		74.7			37'	
366+09	366+60																	2.0'	2.6'					17'	
366+76																									
366+80	367+00																								
366+75	367+00			100'				064'										7.0'	6.0'	14.4'	3.1'		31'	110'	
367+95	370+76																								
370+50	371+00														2.2'								19'		
370+73																									Retained
370+76				108'				064'						4.5'	2.3'	2.0'	1'	7.5'	1.8'	15.8'	3.6'		35'		
371+50	374+00																							0'	Not constructed
371+75	374+00																								Refer to E.W.L.
370±76																									
371+73±													1'												
371+92																									Retained
372+00				NEW 6" Underdrain																					
374+00				98'	064'			064'						5.0'	2.8'	2.5'	1'	8.2'	6.3'	12.5'	3.4'		25'		
375+50	376+00														2.2'								19'		
375+56				94'				064'						5.5'	3.8'	2.5'	1'	6.1'	5.9'	13.7'	3.1'		27'		
376+00±													1'												
379+21																									Retained
380+64																									Retained
382+50 & (382+48 RT)																									Retained
11+00	& 11+25							15"	106'									42.5'							
		2"	371'	5/12	302'	126'		15"	62' Optional	1	1	3			2.2' 1497'	1392'	3'	2.1'	1136'	245.0'	118.3'	411.7'	356.2'	921'	400'
		1"	13884						106' Regular Bid Item																
		3/4"	143'																						

Waterdrain Summary

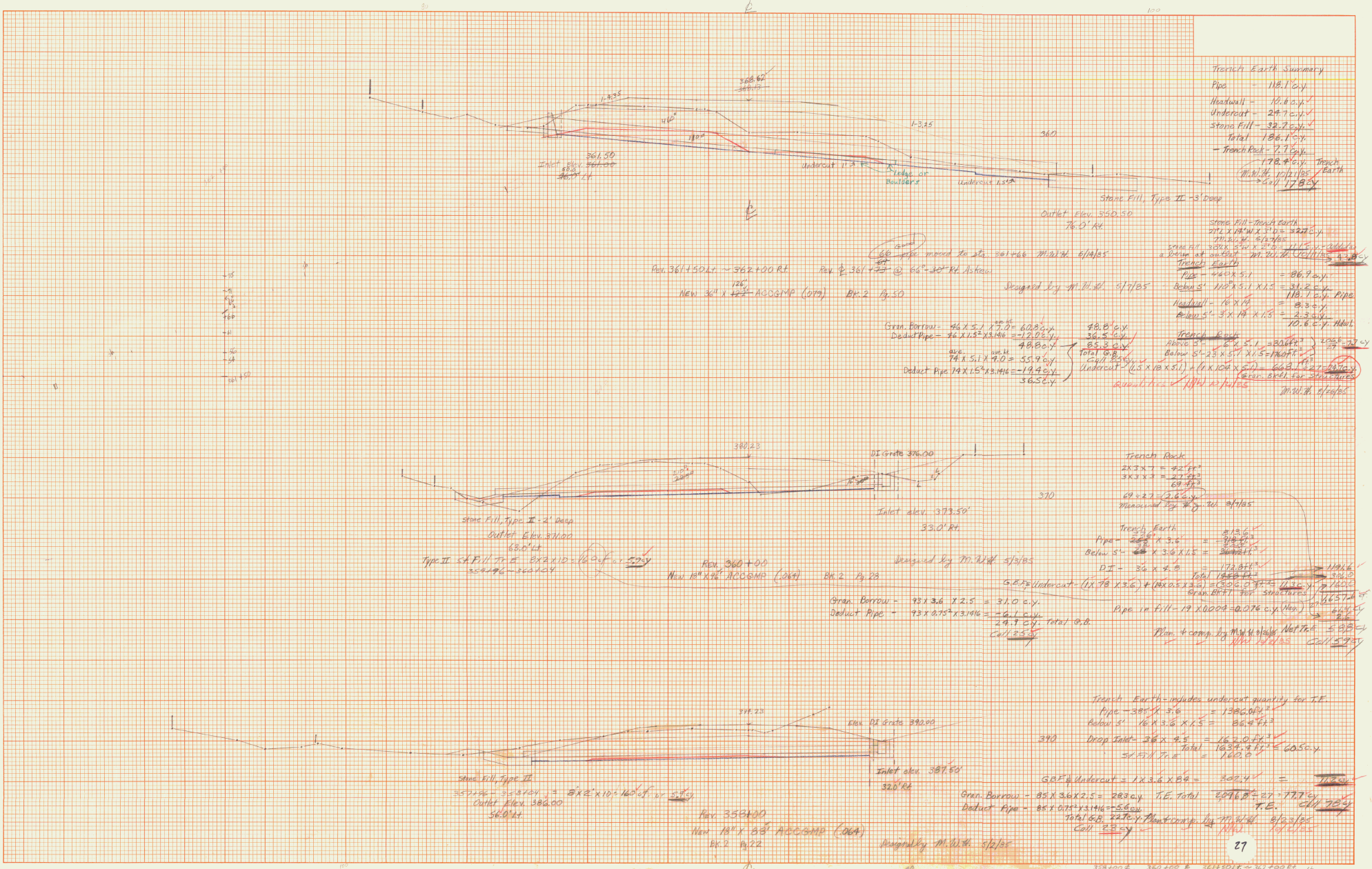
T + S	S	Wtd	Carry	18"	Posts
351+08.6 - 354+68	334'	174.3	580'	46'	1
360+80 - 364+20	118'	153.5	390'	31'	1
364+82 - 370+73	150'	97.0	368'	31'	1
370+82 - 374+02	216'	18.1	320'	18'	3
374+02 - 375+42	111'	4.6	140'	14'	1
37210 X pipe	46'	11.7	78'	20'	0
	875'	456.2	1876' 1498'	224'	7

358+04 N 358+96 E

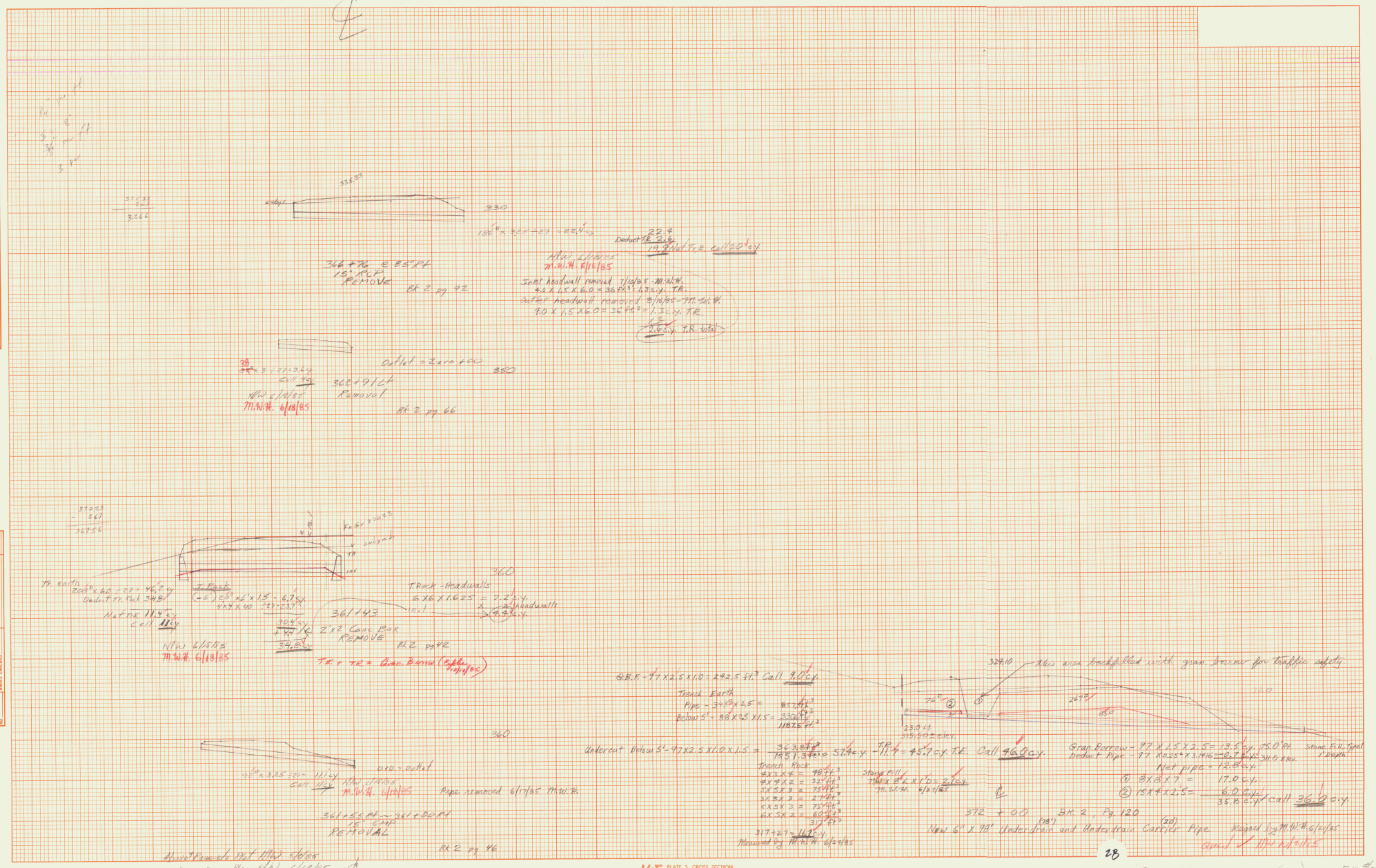
Surv.

Surv.

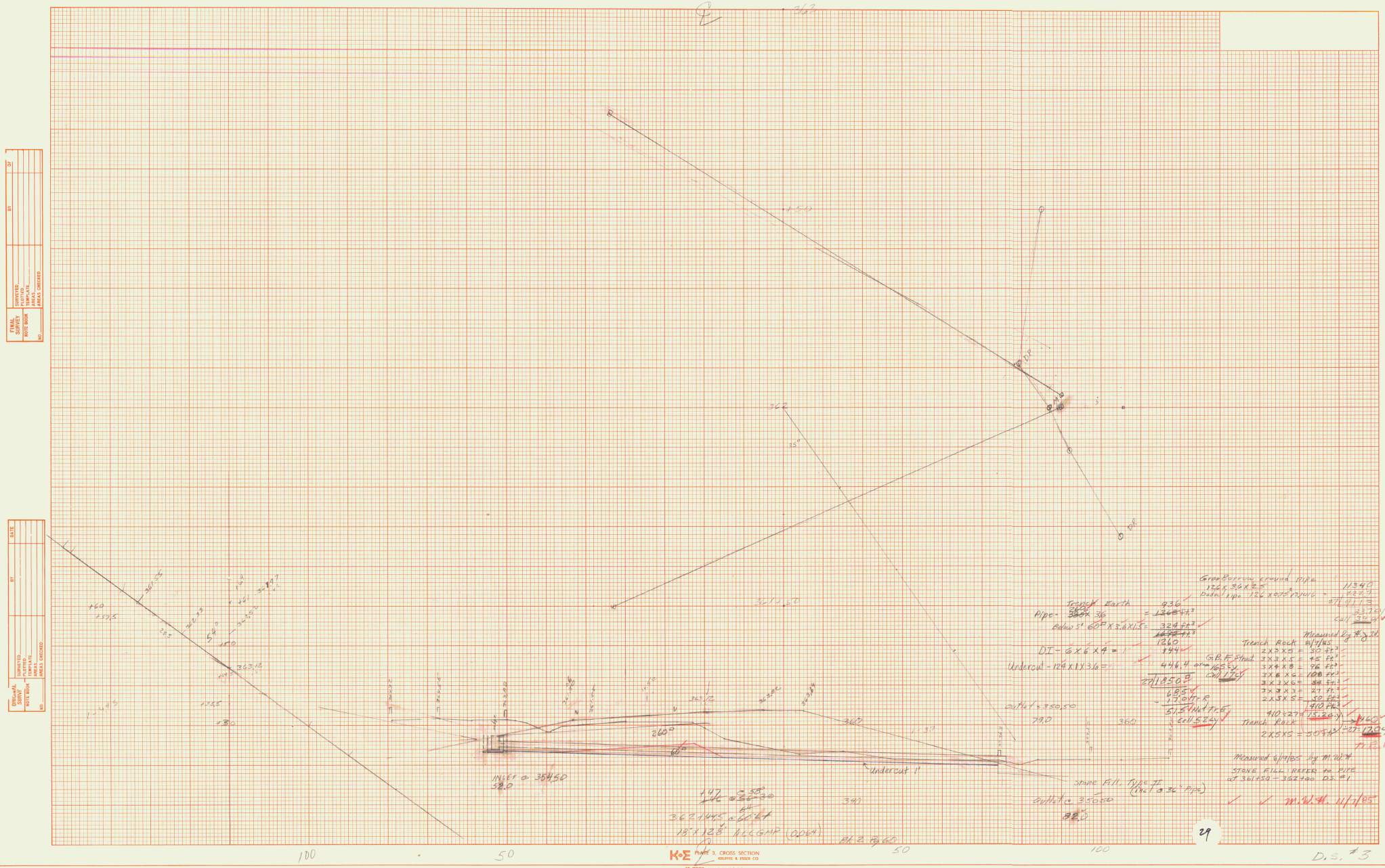
Surv.



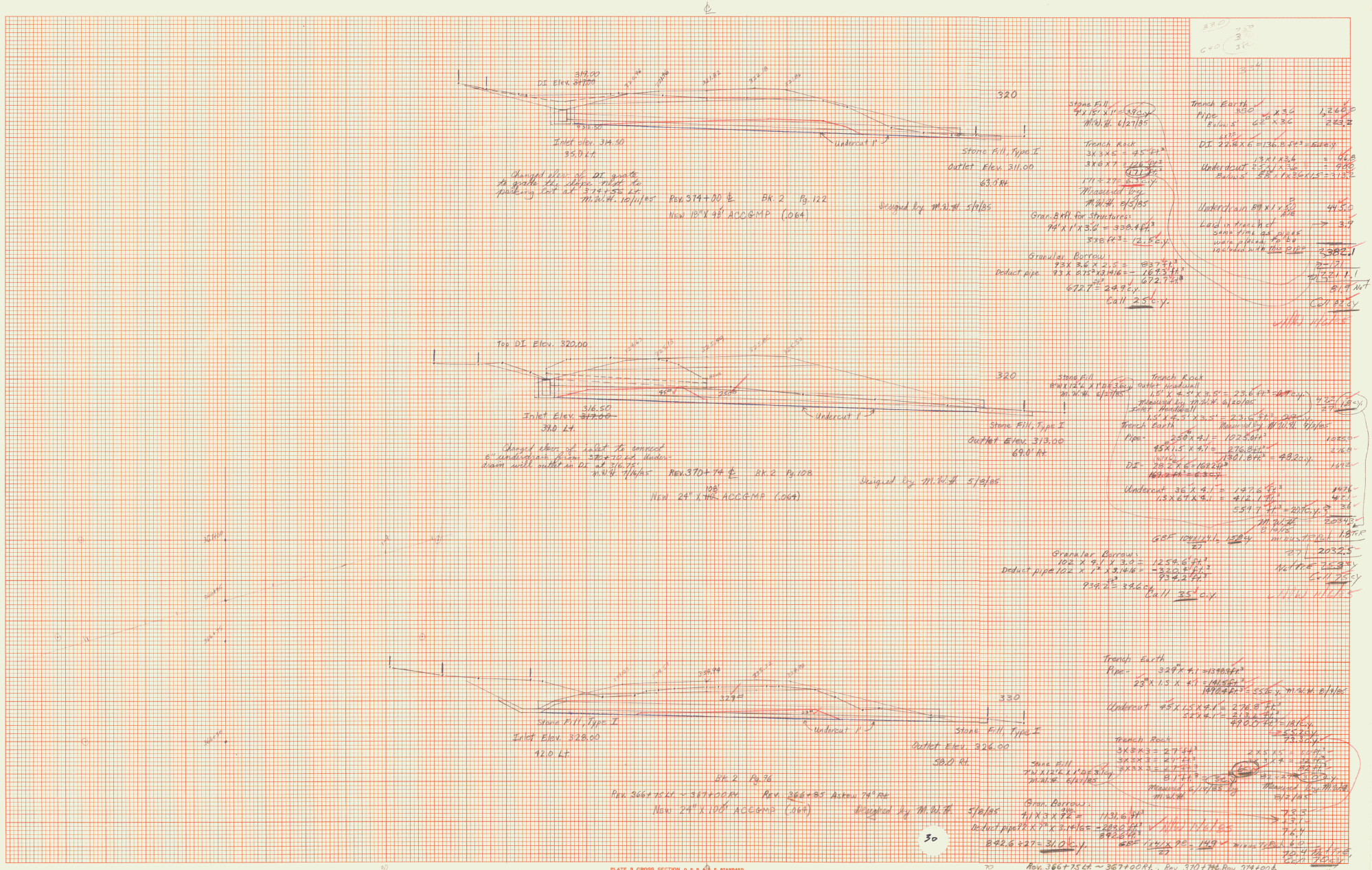
Trench Earth Summary
Pipe - 118.1 c.y.
Headwall - 10.6 c.y.
Undercut - 24.7 c.y.
Stone Fill - 32.7 c.y.
Total 186.1 c.y.
- Trench Rock - 7.7 c.y.
178.4 c.y. Trench Earth
M.W.H. 10/21/85
Call 178 c.y.
368.62
1-4.35
460°
110°
1-3.25
360
361.50
Inlet Elev. 361.00
Undercut 1'
Ledge or Boulders
Undercut 1.5'
Stone Fill, Type II - 3' Deep
Outlet Elev. 350.50
76.0' Rt.
Stone Fill - Trench Earth
27'L x 14'W x 3'D = 32.7 c.y.
M.W.H. 6/27/85
Stone Fill 30'L x 5'W x 2'D = 11.1 c.y. - Added a bottom at outlet - M.W.H. 10/11/85 43.8 c.y.
Trench Earth
Pipe - 460 x 5.1 = 86.9 c.y.
Below 5' 110° x 5.1 x 1.5 = 31.2 c.y.
118.1 c.y. Pipe
Headwall - 16 x 14 = 8.3 c.y.
Below 5' - 3 x 14 x 1.5 = 2.3 c.y.
10.6 c.y. Hdwl.
Trench Rock
Above 5' - 6 x 5.1 = 30.6 ft³
Below 5' - 23 x 5.1 x 1.5 = 176.0 ft³
206.6 / 27 = 7.7 c.y.
Gran. Bkfl. for Structures
M.W.H. 8/26/85
Rev. 361+50 Lt. ~ 362+00 Rt.
Rev. ℄ 361+73 @ 66° - 30' Rt. Askew
66 Good pipe moved to sta. 361+66 M.W.H. 6/14/85
NEW 36" x 126" ACCGMP (.079) Bk. 2 Pg. 50
Designed by M.W.H. 5/7/85
Gran. Borrow - 46 x 5.1 x 7.0 = 60.8 c.y.
Deduct Pipe - 46 x 1.5² x 3.1416 = -12.0 c.y.
48.8 c.y.
74 x 5.1 x 4.0 = 55.9 c.y.
Deduct Pipe 74 x 1.5² x 3.1416 = -19.4 c.y.
36.5 c.y.
48.8 c.y.
36.5 c.y.
85.3 c.y.
Total G.B.
Call 85 c.y.
Undercut - (1.5 x 18 x 5.1) + (1 x 104 x 5.1) = 668.1 ft³ = 27 - 24.7 c.y.
Quantities N/W 10/21/85
380.23
DI Grate 376.00
370
Stone Fill, Type II - 2' Deep
Outlet Elev. 371.00
63.0' Lt.
Inlet elev. 373.50'
33.0' Rt.
Type II St. Fill Tr. E. 8 x 2 x 10 = 160 c.f. or 5.9 c.y.
359+96 - 360+04
Rev. 360+00
New 18" x 96' ACCGMP (.064) Bk. 2 Pg. 28
Designed by M.W.H. 5/3/85
Trench Rock
2 x 3 x 7 = 42 ft³
3 x 3 x 3 = 27 ft³
69 ft³
69 ÷ 27 = 2.6 c.y.
Measured by M.W.H. 8/7/85
Trench Earth
Pipe - 36' x 3.6 = 813.6
Below 5' - 36 x 3.6 x 1.5 = 324.0
DI - 36 x 4.8 = 172.8 ft³
Total 1458 ft³
G.B.F. & Undercut - (1 x 78 x 3.6) + (14 x 0.5 x 3.6) = 306.0 ft³ = 11.3 c.y.
Gran. Bkfl. for Structures
1191.6
306.0
1657.6
Pipe in Fill - 19 x 0.004 = 0.076 c.y. (Neg.)
61.4 c.y.
2.6
Plan. & comp. by M.W.H. 8/26/85
Net Tr. E. 58.8 c.y.
N/W 10/21/85
Call 59 c.y.
Gran. Borrow - 93 x 3.6 x 2.5 = 31.0 c.y.
Deduct Pipe - 93 x 0.75² x 3.1416 = -6.1 c.y.
24.9 c.y. Total G.B.
Call 25 c.y.
394.23
Elev. DI Grate 390.00
390
Stone Fill, Type II
357+96 - 358+04 = 8 x 2 x 10 = 160 c.f. or 5.9 c.y.
Outlet Elev. 386.00
56.0' Lt.
Inlet elev. 387.50'
32.0' Rt.
Rev. 358+00
New 18" x 88' ACCGMP (.064)
Bk. 2 Pg. 22
Designed by M.W.H. 5/2/85
Trench Earth - includes undercut quantity for T.E.
Pipe - 385 x 3.6 = 1386.0 ft³
Below 5' 16 x 3.6 x 1.5 = 86.4 ft³
Drop Inlet - 36 x 4.5 = 162.0 ft³
Total 1634.4 ft³ = 60.5 c.y.
St. Fill Tr. E = 160.0
G.B.F. & Undercut = 1 x 3.6 x 8.4 = 302.4 = 11.2 c.y.
Gran. Borrow - 85 x 3.6 x 2.5 = 28.3 c.y. T.E. Total 2096.8 ÷ 27 = 77.7 c.y.
Deduct Pipe - 85 x 0.75² x 3.1416 = -5.6 c.y.
Total G.B. 22.7 c.y.
Call 23 c.y.
T.E.
Call 78 c.y.
Plan. & comp. by M.W.H. 8/23/85
N/W 10/21/85
27
358+00 ℄, 360+00 ℄, 361+50 Lt. ~ 362+00 Rt. #1
POWNAL F019-1(20)S DRAINAGE SHEET 1
K+E PLATE 3, CROSS SECTION KEUFFEL & ESSER CO.
48 7052 MADE IN U.S.A.

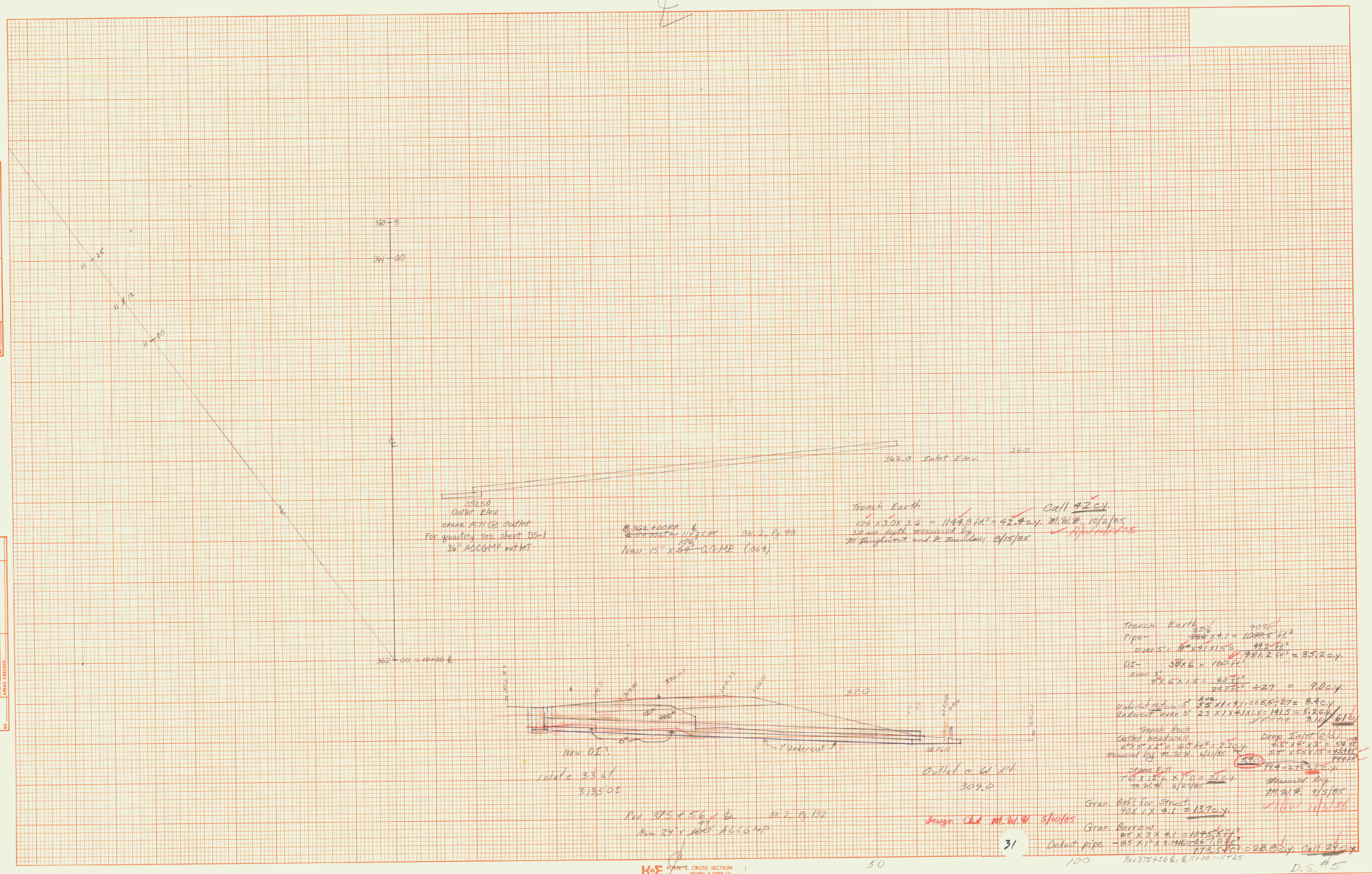


335.33
330
186' x 3.25 ÷ 27 = 22.4 cy
22.4
Deduct T.R. 2.6
19.9 Net Tr. E. Call 20 cy.
366+76 @ 85° Rt
15" RCP
REMOVE
Bk 2 pg 92
M.W.H. 6/18/85
Inlet headwall removed 7/10/85 - M.W.H.
4.0 x 1.5 x 6.0 = 36 ft.³ = 1.3 c.y. T.R.
Outlet headwall removed 8/16/85 - M.W.H.
4.0 x 1.5 x 6.0 = 36 ft.³ = 1.3 c.y. T.R.
2.6 c.y. T.R. total
Outlet = Zero + 00
350
362+91 Lt
Removal
Bk 2 pg 66
M.W.H. 6/18/85
360
Tr. Earth
208' x 6.0 ÷ 27 = 46.2 cy
Deduct Tr. Rock 34.8
Net Tr. E. 11.4 cy
Call 11 cy
T. Rock
(-5') 20' x 6' x 1.5 = 6.7 cy
4 x 4 x 40 ÷ 27 = 23.7
30.4 cy
+ 4.4
34.8 cy
361+43
2'x2' Conc. Box
REMOVE
Bk 2 pg 42
T.E. + T.R. = Gran. Borrow
T Rock - Headwalls
6 x 6 x 1.625 = 2.2 c.y.
4.4 c.y.
M.W.H. 6/18/85
360
92' x 3.25 ÷ 27 = 11.1 cy
Call 11 cy
O+D = Outlet
M.W.H. 6/18/85
Pipe removed 6/17/85 M.W.H.
361+55 Rt ~ 361+80 Rt
15" CMP
REMOVAL
Bk 2 pg 46
Above Removals Plot M.W.H. 6/18/85
Plan M.W.H. 6/18/85
G.B.F. - 97 x 2.5 x 1.0 = 242.5 ft.³ Call 9.0 cy.
Trench Earth
Pipe - 343' x 2.5 = 857.5 ft.³
Below 5' - 88 x 2.5 x 1.5 = 330.0 ft.³
1187.5 ft.³
324.10
This area backfilled with gran. borrow for traffic safety
76'
267'
85'
23.0 Lt.
315.50 ± elev.
Undercut Below 5' - 97 x 2.5 x 1.0 x 1.5 = 363.8 ft.³ / 1551.3 ft.³ = 57.4 c.y. - T.R. 11.4 = 45.7 c.y. T.E. Call 46.0 c.y.
Trench Rock
4 x 3 x 4 = 48 ft.³
4 x 4 x 2 = 32 ft.³
5 x 5 x 3 = 75 ft.³
3 x 3 x 3 = 27 ft.³
5 x 5 x 3 = 75 ft.³
6 x 5 x 2 = 60 ft.³
317 ft.³
317 ÷ 27 = 11.7 c.y.
Measured by M.W.H. 6/24/85
Stone Fill
7' W x 8' L x 1' D = 2.1 c.y.
M.W.H. 6/27/85
Gran. Borrow - 97 x 1.5 x 2.5 = 13.5 c.y. 75.0 Rt.
Deduct Pipe - 97 x 0.25² x 3.1416 = -0.7 c.y. 311.0 Elev.
Net pipe - 12.8 c.y.
① 8 x 8 x 7 = 17.0 c.y.
② 15 x 4 x 2.5 = 6.0 c.y.
35.8 c.y. Call 36.0 c.y.
Stone Fill, Typical 1' Depth
372 + 00 Bk. 2, Pg. 120
New 6" x 98' Underdrain (98') and Underdrain Carrier Pipe (20')
Designed by M.W.H. 6/21/85
Quant. M.W.H. 6/21/85
28
K+E PLATE 3, CROSS SECTION KEUFFEL & ESSER CO.
48 7052 MADE IN U.S.A.
POWNAL F 019-1(20)S
D.S. #2



FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
363
+50
362
361+50
360
340
DP
DR
Trench Earth
Pipe - 36 = 936
Below 5' 60° X 3.6 X 1.5 = 324 ft³
1260
DI - 6 X 6 X 4 = 144
Undercut - 124 X 1 X 3.6 = 446.4 or 165 cy
27 | 1850
685
17.0 Tr R
51.5 Net Tr E
Cell 52 cy
Outlet = 350.50
79.0
Undercut 1'
INLET @ 354.50
52.0
Stone Fill, Type II (Inlet @ 36" Pipe)
Outlet @ 350.50
82.0
362+44.5 @ 60° Lt
18" X 128' ACCGMP (0.064)
Bk 2 Pg 60
Grou Borrow around pipe
126 X 3.6 X 2.5
Dedwd pipe 126 X 0.75² X 3.1416 =
11340
222.7
27 | 9113
337 cy
Cell 34 cy
Measured by H. J. Jd.
Trench Rock 8/9/85
2 X 3 X 5 = 30 ft³
3 X 3 X 5 = 45 ft³
3 X 4 X 8 = 96 ft³
3 X 6 X 6 = 108 ft³
3 X 3 X 6 = 54 ft³
3 X 3 X 3 = 27 ft³
2 X 5 X 5 = 50 ft³
410 ft³
410 ÷ 27 = 15.26 cy
Trench Rock
2 X 5 X 5 = 50 ft³
460
÷ 27 = 17.0 cy
Tr. Rock
Measured 6/19/85 by M. W. H.
STONE FILL: REFER to PIPE at 361+50 - 362+00 D.S. #1
M. W. H. 11/7/85
29
100
50
50
100
D.S. #3
K+E PLATE 3, CROSS SECTION
KEUFFEL & ESSER CO.
48 7052 MADE IN U.S.A.


DI Elev. 317.00
312.00
316.50
Inlet elev. 314.50
95.0 Lt.
Undercut 1'
Stone Fill, Type I
Outlet Elev. 311.00
63.5 Rt.
320
Stone Fill
9'0"x6'x1'=36c.y.
M.W.H. 6/27/85
Trench Rock
3'x3'x5' = 45 ft³
3'x6'x7' = 126 ft³
171 ft³ = 6.3 c.y.
Measured by
M.W.H. 6/5/85
Gran. Bkfl. for Structures:
94'x1'x3.6' = 338.4 ft³
338 ft³ = 12.5 c.y.
Granular Borrow:
93x3.6x12.5 = 837 ft³
Deduct pipe 93x.875²x3.1416/4 = - 164.3 ft³
672.7 ft³
672.7 ft³ = 24.9 c.y.
Call 25 c.y.
Trench Earth
Pipe 350 x 3C = 1260 ft³
Extra 5' 42" x 3C = 283.2
DI 22.6 x 6 = 136.8 ft³ = 5.1 c.y.
Undercut 13x1x3.6 = 46.8
25'x1'x3.6' = 90.0
Extra 5' 58" x 1' x 3.6 x 1.5 = 313.2
Underdrain 89 x 1' x 5' = 445.0
Laid in trench at same time as pipes; work phase to be included with this price
382.1
171.1
211.0
617 Nat
Coll 82 c.y.
Top DI Elev. 320.00
316.50
Inlet Elev. 317.00
39.0 Lt.
Undercut 1'
Stone Fill, Type I
Outlet Elev. 313.00
69.0 Rt.
320
Stone Fill
8'NX12'x1'D=36c.y.
M.W.H. 6/27/85
Trench Rock
15' x 4.5' x 3.5' = 236.25 ft³ = 8.8 c.y.
Measured by M.W.H. 6/26/85
Trench Earth
Pipe - 250 x 4.1 = 1025 ft³
15'x1.5'x4.1' = 276.8 ft³
1301.8 ft³ = 48.2 c.y.
DI 28.2 x 6 = 169.2 ft³
463.2 ft³ = 17.2 c.y.
Undercut 36 x 4.1 = 147.6 ft³
15'x6'x4.1' = 492.1 ft³
639.7 ft³ = 23.7 c.y.
68' 10"x12"x1' = 1.5 c.y.
27
Granular Borrow:
102 x 4.1 x 3.3 = 1259.6 ft³
Deduct pipe 102 x 1² x 3.1416/4 = - 320.4 ft³
939.2 ft³
939.2 ft³ = 34.8 c.y.
Call 35 c.y.
Stone Fill, Type I
Inlet Elev. 328.00
42.0 Lt.
Undercut 1'
Stone Fill, Type I
Outlet Elev. 326.00
58.0 Rt.
330
Stone Fill
7'NX12'x1'D=31c.y.
M.W.H. 6/26/85
Trench Rock
3'x3'x3' = 27 ft³
3'x3'x3' = 27 ft³
3'x3'x3' = 27 ft³
81 ft³ = 3.0 c.y.
Measured by M.W.H. 6/26/85
Trench Earth
Pipe - 329 x 4.1 = 1349.9 ft³
23" x 1.5' x 4.1' = 141.5 ft³
1491.4 ft³ = 55.2 c.y.
Undercut 45 x 1.5 x 4.1 = 276.8 ft³
5 x 1.5 x 4.1 = 30.8 ft³
4200 ft³ = 181 c.y.
= 55.2 c.y.
73.3 c.y.
Gran. Borrow:
7'x3'x72' = 1134.6 ft³
Deduct pipe 72 x 1² x 3.1416/4 = - 226.2 ft³
892.6 ft³
892.6 ft³ = 33.0 c.y.
Rev. 366+75 Lt ~ 367+00 Rt., Rev. 370+74, Rev. 374+00 Lt
Rev. 379+00 Lt
BK. 2 Pg. 122
New 12"x 98' ACCGMP (.064)
Designed by M.W.H. 5/6/85
BK. 2 Pg. 108
New 24" x 146' ACCGMP (.064)
BK. 2 Pg. 96
Rev. 366+75 Lt ~ 367+00 Rt
Rev. 366+85 Asbuilt 74° Rt
New 24" x 100' ACCGMP (.064)
Designed by M.W.H. 5/6/85
30
PLATE 3 CROSS SECTION O. P. R. & E. STANDARD
DIETZGEN CORPORATION
D.S. #4



K•E PLATE 1, CROSS SECTION KEUFFEL & ESSER CO

48 7050 MADE IN U.S.A.

FINAL SURVEY NOTE BOOK No. — DRAWN / TRACED / CHECKED / AREA CHECKED

ORIGINAL SURVEY NOTE BOOK No. — DATE / BY / TYPED / TRACED / CHECKED / AREA CHECKED

Drive @ 369+00 Rt. Gravel Quantity

Sta	Area	Length	Vol
0+00	24 (1)	25	21.99 c.y.
0+25	(16+23/2)(1)	25	19.91 c.y.
0+50	(16+23/2)(1)	25	17.13 c.y.
0+75	(16+19/2)(1)	25	8.10 c.y.
1+00	0		
		Total	67.13 c.y.

Call 67.1 c.y.

M.W.W. 12/6/85

1+10 "ZERO Section" Gr.=0

0+75 Gr.=17.5

0+50 Gr.=19.5

0+25 Gr.=23.5

0+00 = 369+00 20' RT Gr.=24

Drive @ 373+00 Rt. Gravel Quantity

Sta	Area	Length	Vol
0+00	24 (1)	25	21.06 c.y.
0+25	(16+27/2)(1)	25	18.75 c.y.
0+50	(16+23/2)(1)	25	17.36 c.y.
0+75	(16+21/2)(1)	30	10.28 c.y.
1+05	0	0	67.45 c.y.

Call 67.5 c.y.

M.W.W. 12/6/85

"ZERO Section" 1+05 Gr.=0

0+75 Gr.=18.5

0+50 Gr.=19

0+25 Gr.=21.5

0+00 = 373+00 20' RT Gr.=24

SUMMARY TOTALS

369+00	67.1 c.y.
373+00	67.5 c.y.
377+00	85.9 c.y.
	220.5 c.y.

72 BK 1 P 56

Drive @ 377+00 Rt. Gravel Quantity

Sta.	Area	Length	Vol.
0+00	35 (1)	25	27.55 c.y.
0+25	(20+29/2)(1)	25	23.15 c.y.
0+50	(20+23/2)(1)	25	22.45 c.y.
0+75	(19+27/2)(1)	30	12.78 c.y.
1+05	0		85.93 c.y.

Call 85.9 c.y.

M.W.W. 12/6/85

"ZERO Section" 1+05 Gr.=0

0+75 Gr.=29

0+50 Gr.=25.5

0+25 Gr.=24.5

0+00 = 377+00 20' RT Gr.=35

M.W.W. 12/6/85

Proposal F-019-1(20)5

Final Profile Sections

Page Sheet No. 1

For C.H. Locke Mostert

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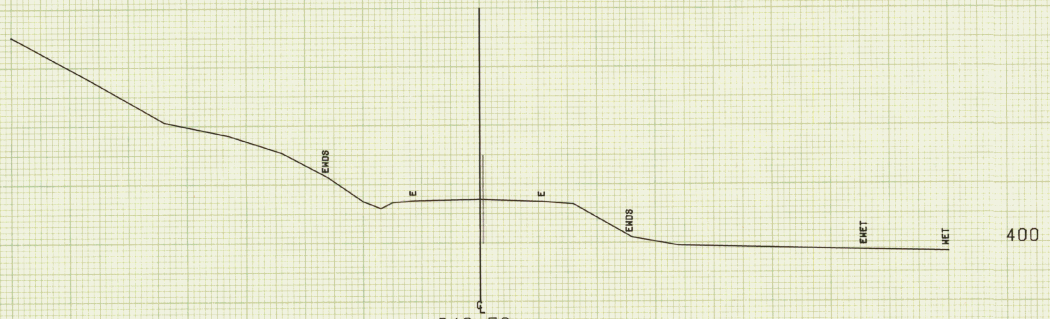
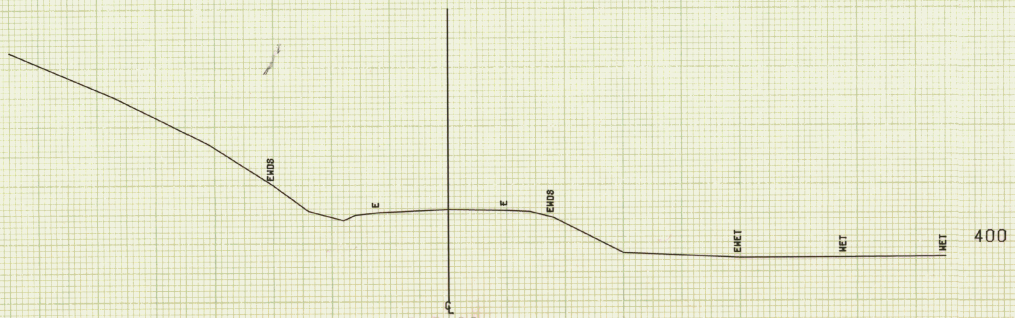
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

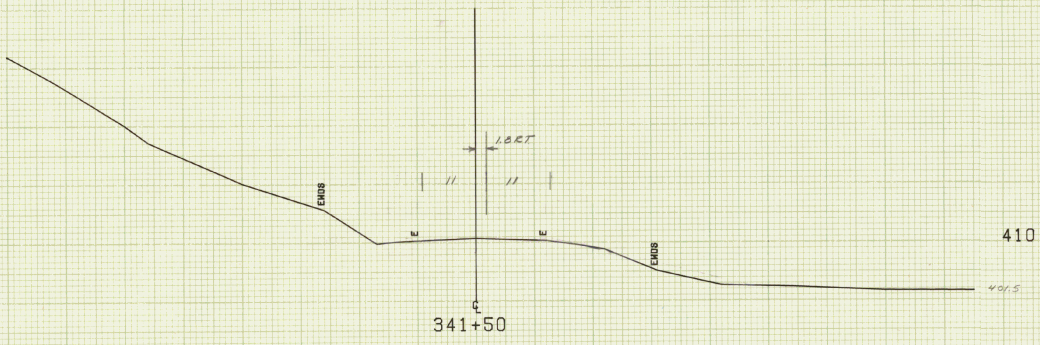




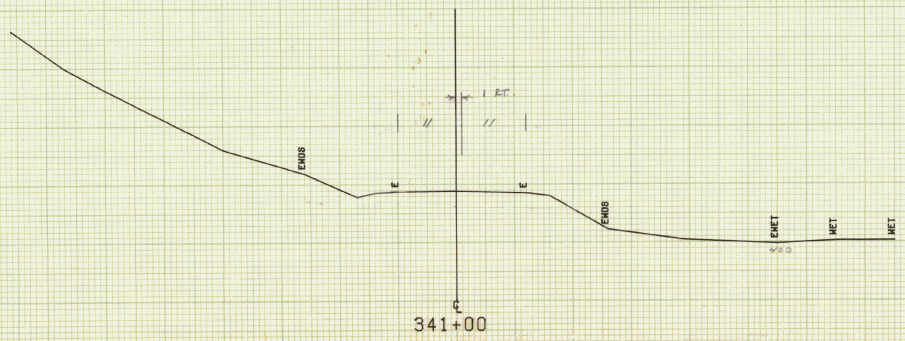
SCALE 10 FEET

FROM STA. 340+00	TO STA. 340+50
PROJECT NAME	POWNAL MAIN
NO.	F019-1(20)
SURVEYED BY	COARSE
SHEET 35 OF 104 SHEETS	

PLOTTED 03/09/82
JAN 1982



341+00
BEGIN 3/4 BITUMINOUS CONCRETE PAVEMENT OVERLAY



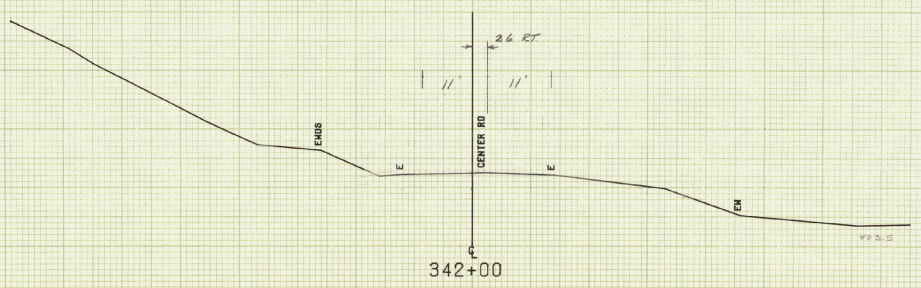
SCALE 10 FEET

FROM STA. 341+00		TO STA. 341+50	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 56 OF 164 SHEETS			



342+36

Existing 18" R.C.P. - Retain

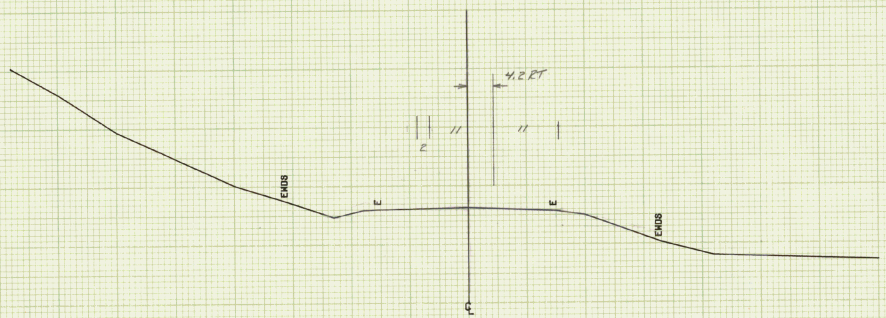


342+00

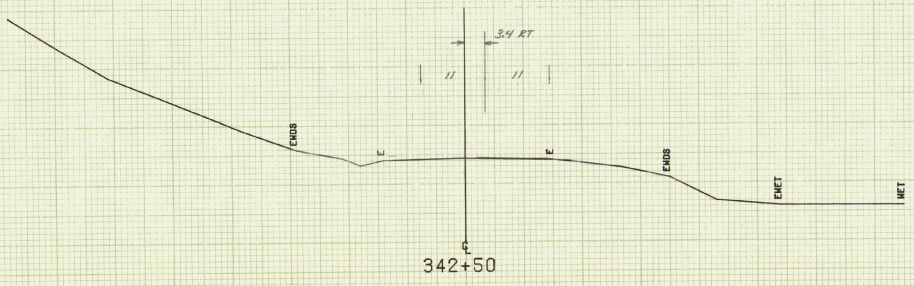
SCALE 10 FEET

FROM STA. 342+00	TO STA. 342+36
PROJECT NAME POWNAL MAIN	
NO. F019-1(20)	PLOTTED 03/09/82
SURVEYED BY COARSE	JAN 1982
SHEET 27 OF 101 SHEETS	

SURV. PC 343+46.70
D - 6° RT.
BANKING .071 FT/FT

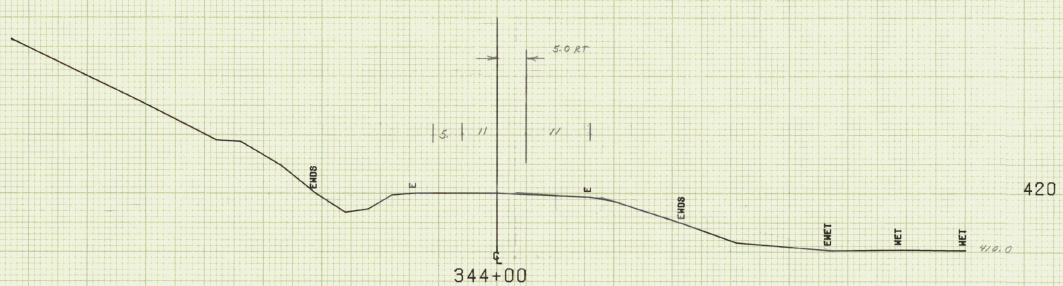


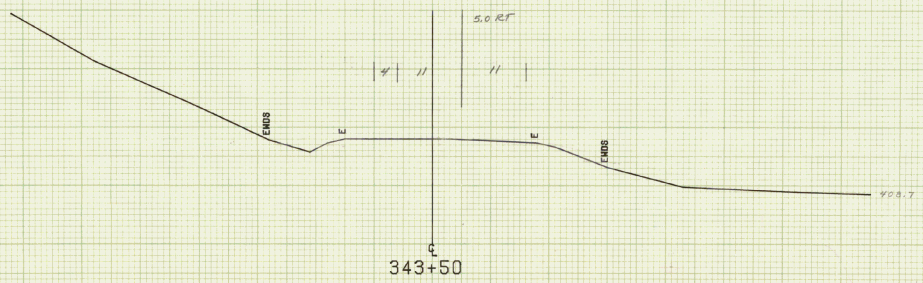
342+50 LT
BEGIN TRUCK LANE TAPER



FROM STA. 342+50 TO STA. 343+00
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 60 OF 164 SHEETS

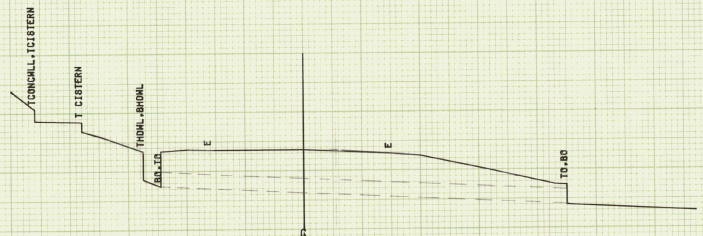
SCALE 10 FEET



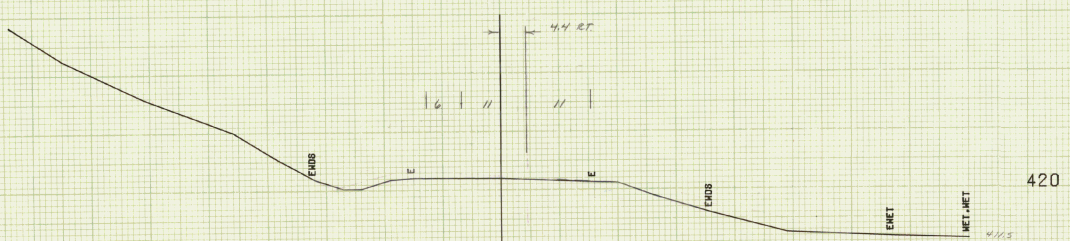


FROM STA. 343+50		TO STA. 344+00	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 57 OF 104 SHEETS			

SCALE 10 FEET



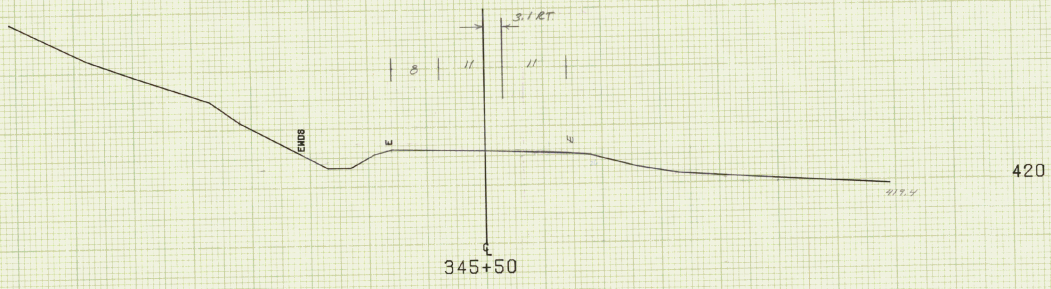
344+90 30' ACCGMP Retain



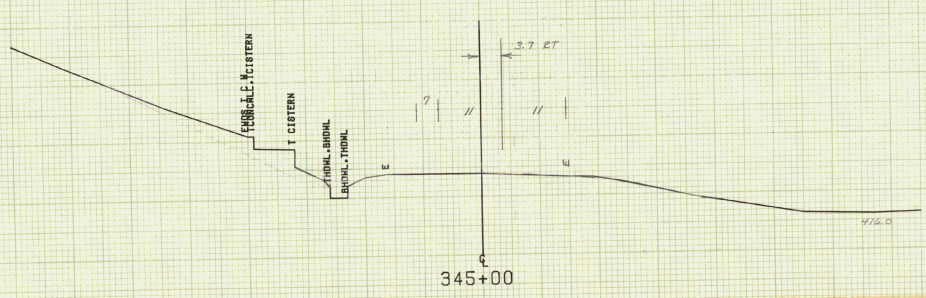
344+50

SCALE 10 FEET

FROM STA. 344+50	TO STA. 344+90
PROJECT NAME	POWNAL MAIN
NO.	F019-1(20) PLOTTED 03/09/82
SURVEYED BY	COARSE JAN 1982
SHEET 60 OF 104 SHEETS	

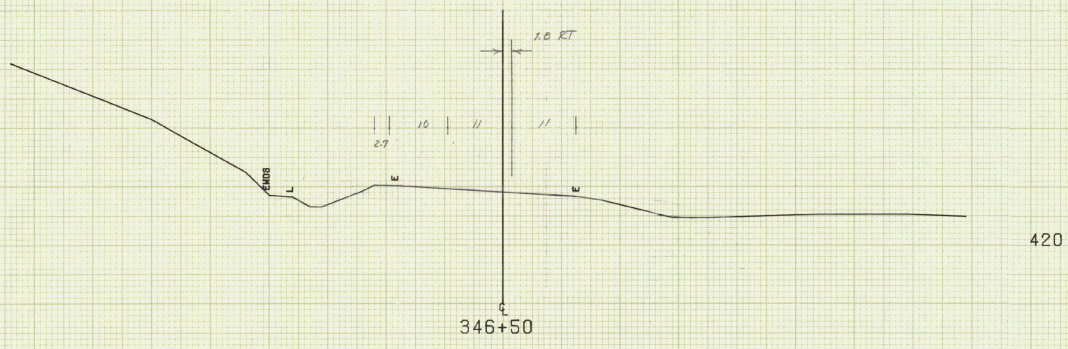


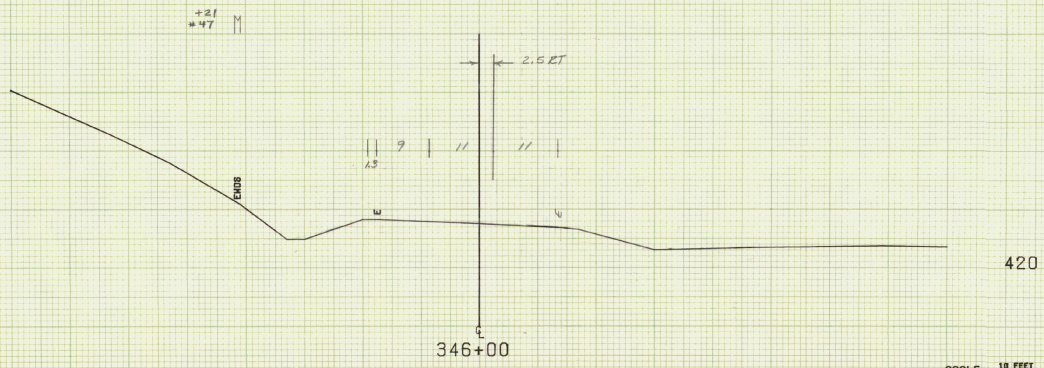
345+00 LT
Concrete Cistern (Do Not Disturb)



SCALE 10 FEET

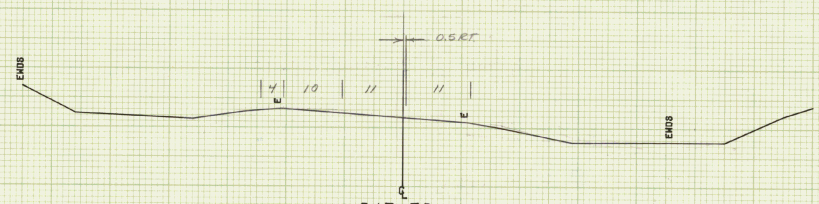
FROM STA. 345+00	TO STA. 345+50		
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)	PLOTTED 03/09/82	
SURVEYED BY	COARSE	JAN 1982	
SHEET 61 OF 102 SHEETS			





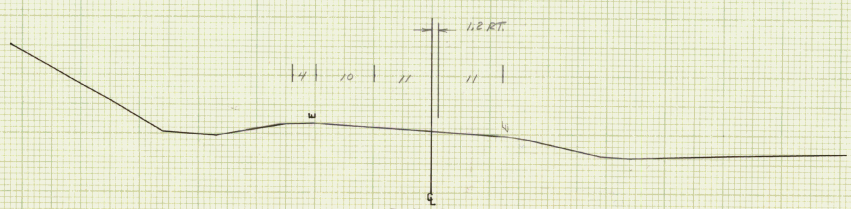
FROM STA. 346+00	TO STA. 346+50		
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)	PLOTTED 03/09/82	
SURVEYED BY	COARSE	JAN 1982	
SHEET 6.6 OF 104 SHEETS			

SCALE 10 FEET



347+50

430

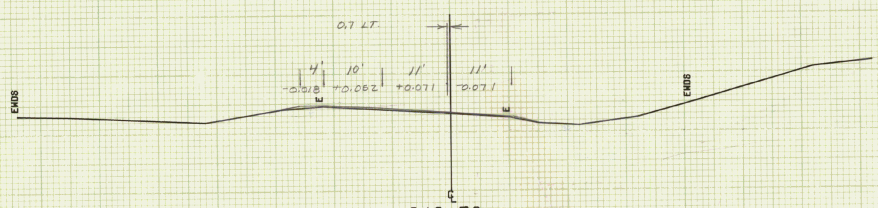


347+00

430

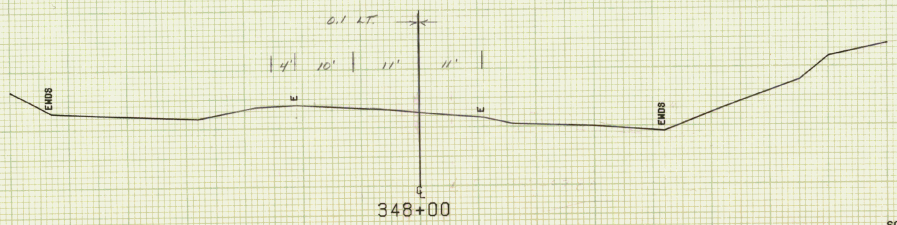
FROM STA. 347+00 TO STA. 347+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 23 OF 107 SHEETS

SCALE 10 FEET



430

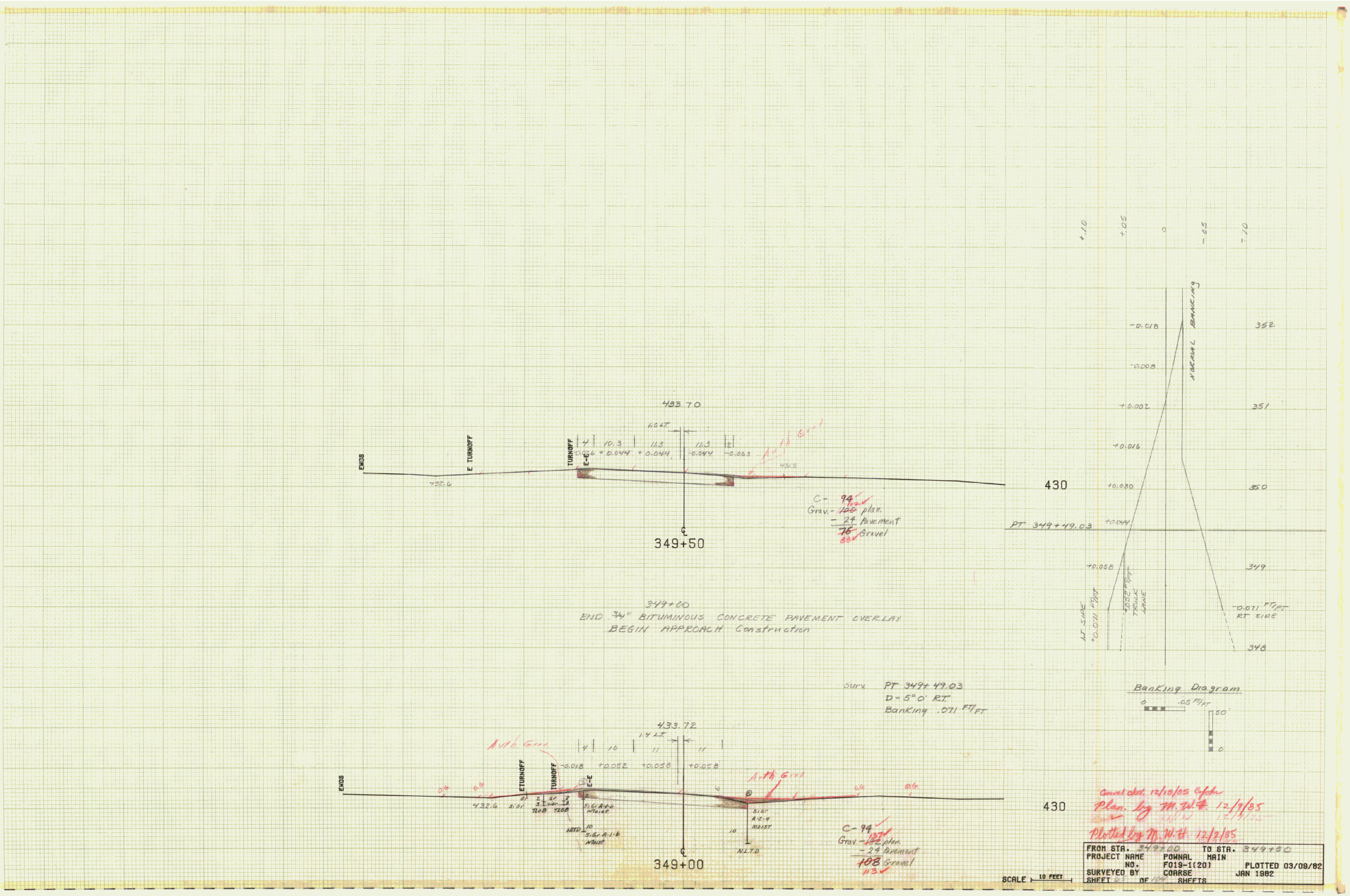
+33
448
172.8
175



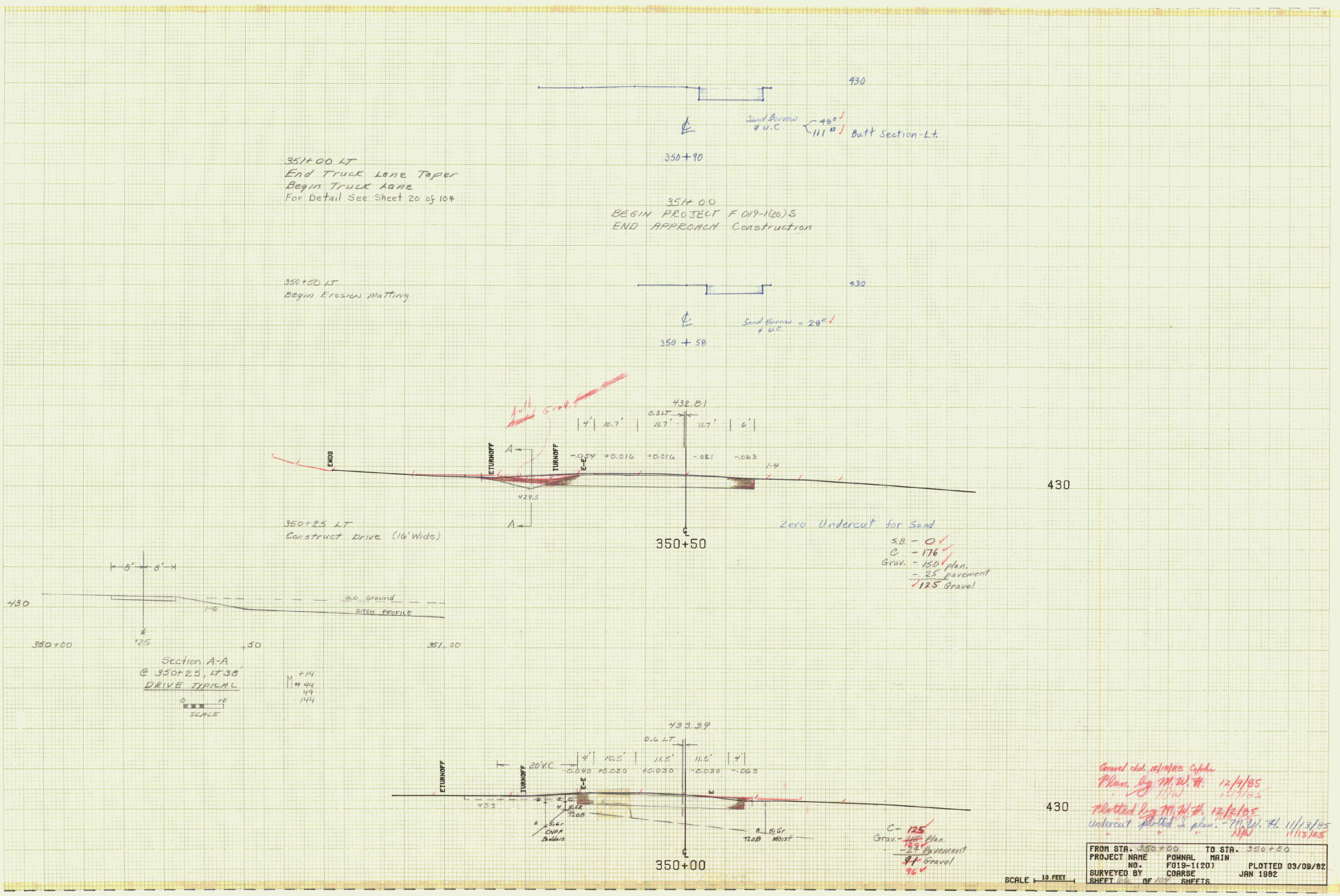
430

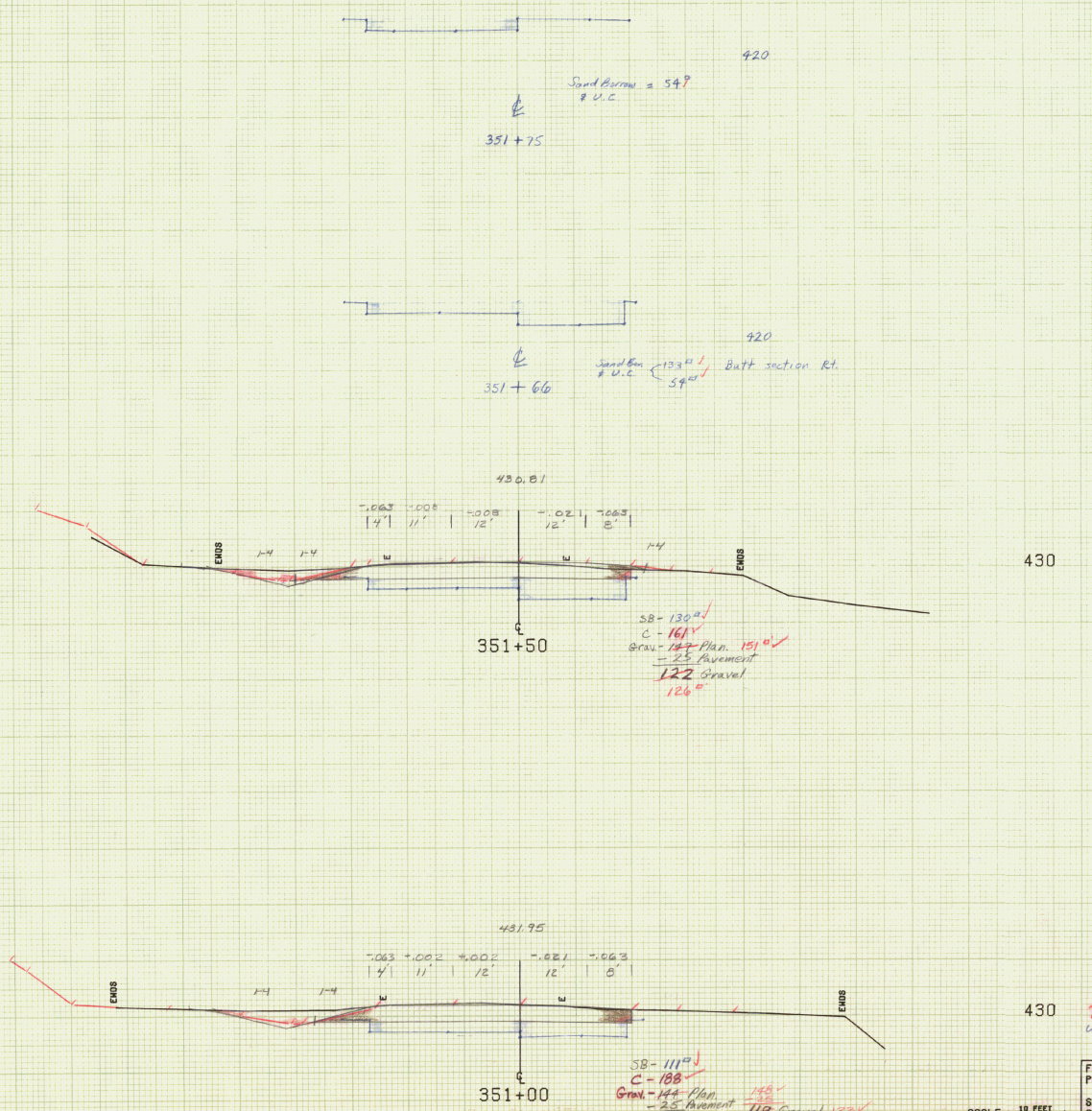
FROM STA. 348+00	TO STA. 348+50		
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)	PLOTTED 03/09/82	
SURVEYED BY	COARSE	JAN 1982	
SHEET 6/ OF 10/ SHEETS			

SCALE 10 FEET



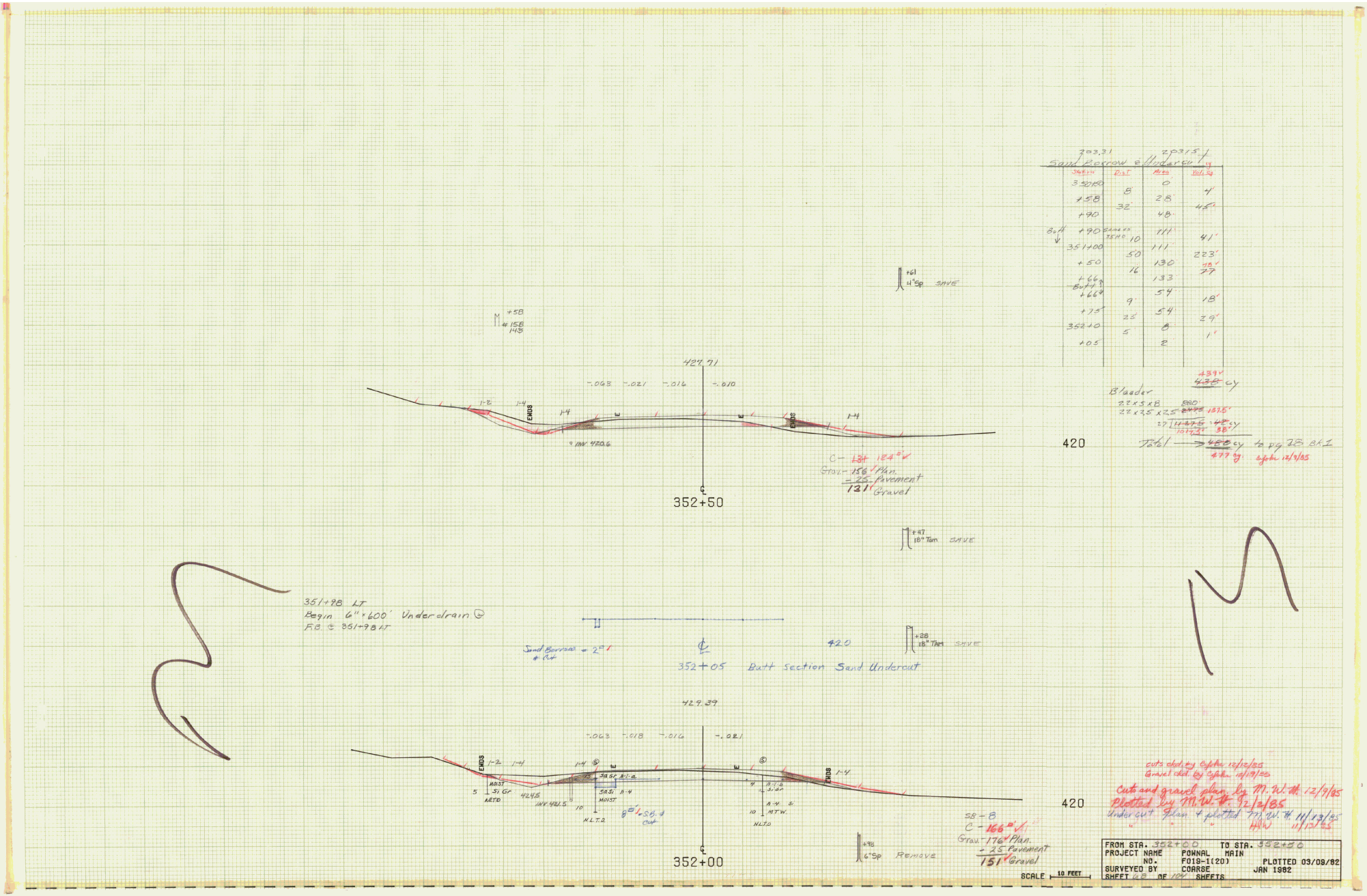
433.70
1.0 LT.
EWDS
E TURNOFF
TURNOFF
E-E
4
10.3
11.3
11.3
2
-0.026
+0.044
+0.044
-0.044
-0.063
Auth Grav
432.6
431.5
C- 94
Grav.- 100 plan.
- 24 Pavement
76 Gravel
88
349+50
349+00
END 3/4" BITUMINOUS CONCRETE PAVEMENT OVERLAY
BEGIN APPROACH Construction
Surv. PT 349+49.03
D = 5°0' RT.
Banking .071 FT/FT
433.72
1.4 LT.
Auth Grav
-0.018
+0.052
+0.058
+0.058
432.6
SiGr
7208
SiGr A-1-b Moist
NLTD
SiGr A-1-b Moist
SiGr A-2-4 MOIST
N.L.T.D.
C- 94
Grav.- 132 plan.
- 24 Pavement
108 Gravel
113
349+00
430
PT 349+49.03
+.10
+.05
0
-.05
-.10
NORMAL BANKING
-0.018
-0.008
+0.002
+0.016
+0.030
+0.044
+0.058
352
351
350
349
348
LT SIDE +0.071 FT/FT
+0.052 FT/FT TRUCK LANE
-0.071 FT/FT RT SIDE
Banking Diagram
0
.05 FT/FT
50
0
Gravel Act. 12/18/85 Cafeta
Plan. by M.W.H. 12/9/85
Plotted by M.W.H. 12/2/85
SCALE 10 FEET
FROM STA. 349+00 TO STA. 349+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 03 OF 104 SHEETS


430
Sand Borrow & U.C. 48° 111° Butt Section-Lt.
350+90
351+00 LT
End Truck Lane Taper
Begin Truck Lane
For Detail See Sheet 20 of 104
351+00
BEGIN PROJECT F 019-1(20)S
END APPROACH Construction
350+50 LT
Begin Erosion Matting
430
Sand Borrow & U.C. = 28°
350 + 58
Add Grav.
432.81
0.3LT
4' 10.7' 11.7' 11.7' 6'
-.054 +0.016 +0.016 -.021 -.063
1-4
ENDS
ETURNOFF
TURNOFF
E-E
A
429.5
430
350+25 LT
Construct Drive (16' Wide)
350+50
Zero Undercut for Sand
S.B. - 0
C - 176
Grav. - 150 plan.
- 25 pavement
125 Gravel
8' 8'
430
OLD Ground
DITCH PROFILE
1-6
350+00
+25
50
351+00
Section A-A
@ 350+25, LT 38'
DRIVE TYPICAL
0 10
SCALE
M +14 #44 49 144
433.39
0.6 LT
4' 10.5' 11.5' 11.5' 4'
20' V.C.
-0.040 +0.030 +0.030 -0.030 -.063
ETURNOFF
TURNOFF
E-E
E
433
SiGr TLOB
SiGr CNPF Boulders
SiGr TLOB MOIST
430
C - 125
Grav. - 115 plan.
139
-24 Pavement
91 Gravel
96
350+00
SCALE 10 FEET
Gravel ckd. 12/18/85 Cafeha
Plan. by M.W.H. 12/9/85
Plotted by M.W.H. 12/2/85
Undercut plotted & plan. - M.W.H. 11/13/85
FROM STA. 350+00 TO STA. 350+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 66 OF 104 SHEETS

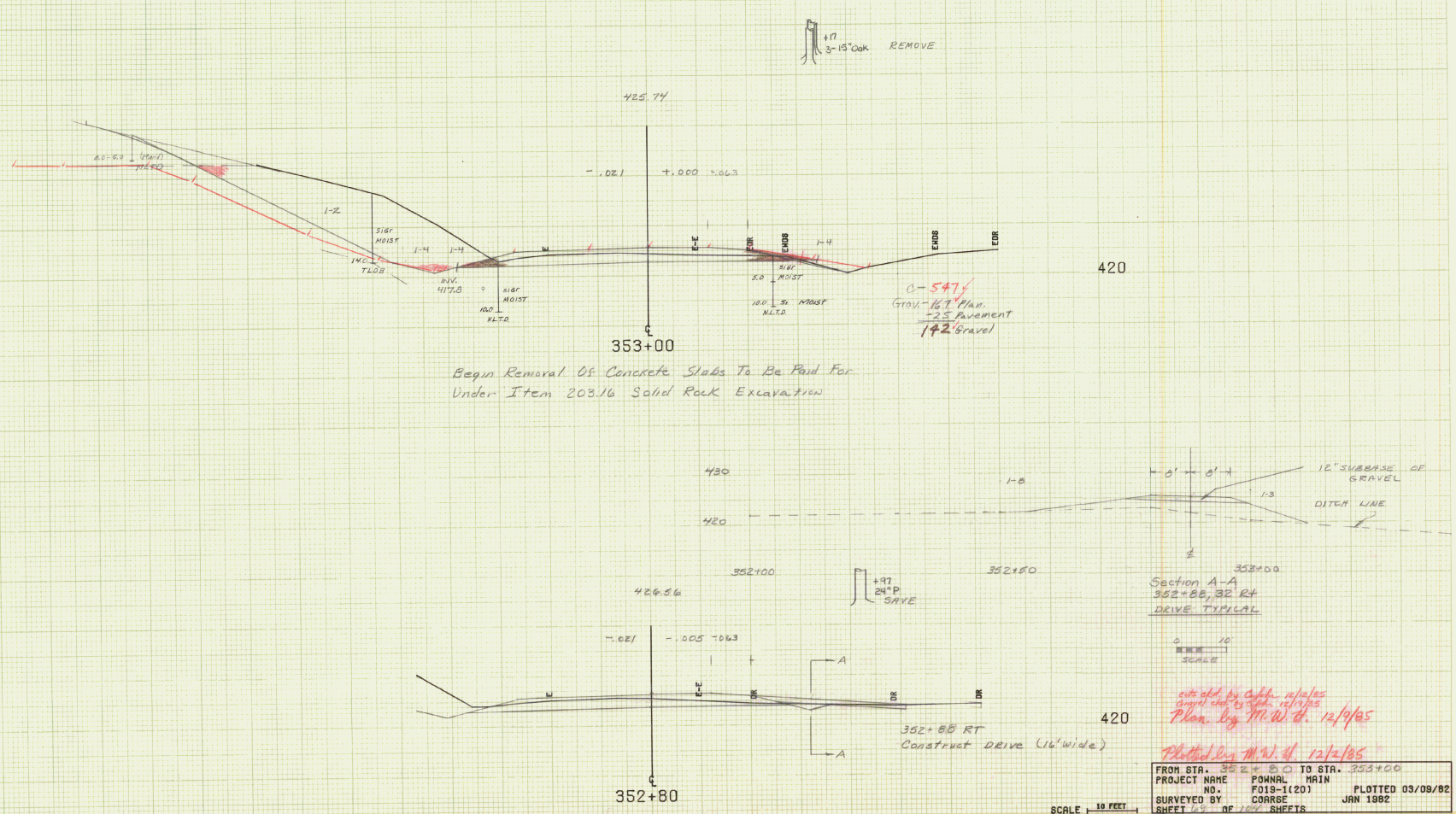


Gravel ckd 12/19/85 Cefehr
Cut and gravel plan. by M.W.H. 12/9/85
Plotted by M.W.H. 12/2/85
undercut plotted & plan. M.W.H. 11/13/85

FROM STA. 351+00		TO STA. 351+50	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 67 OF 104 SHEETS			

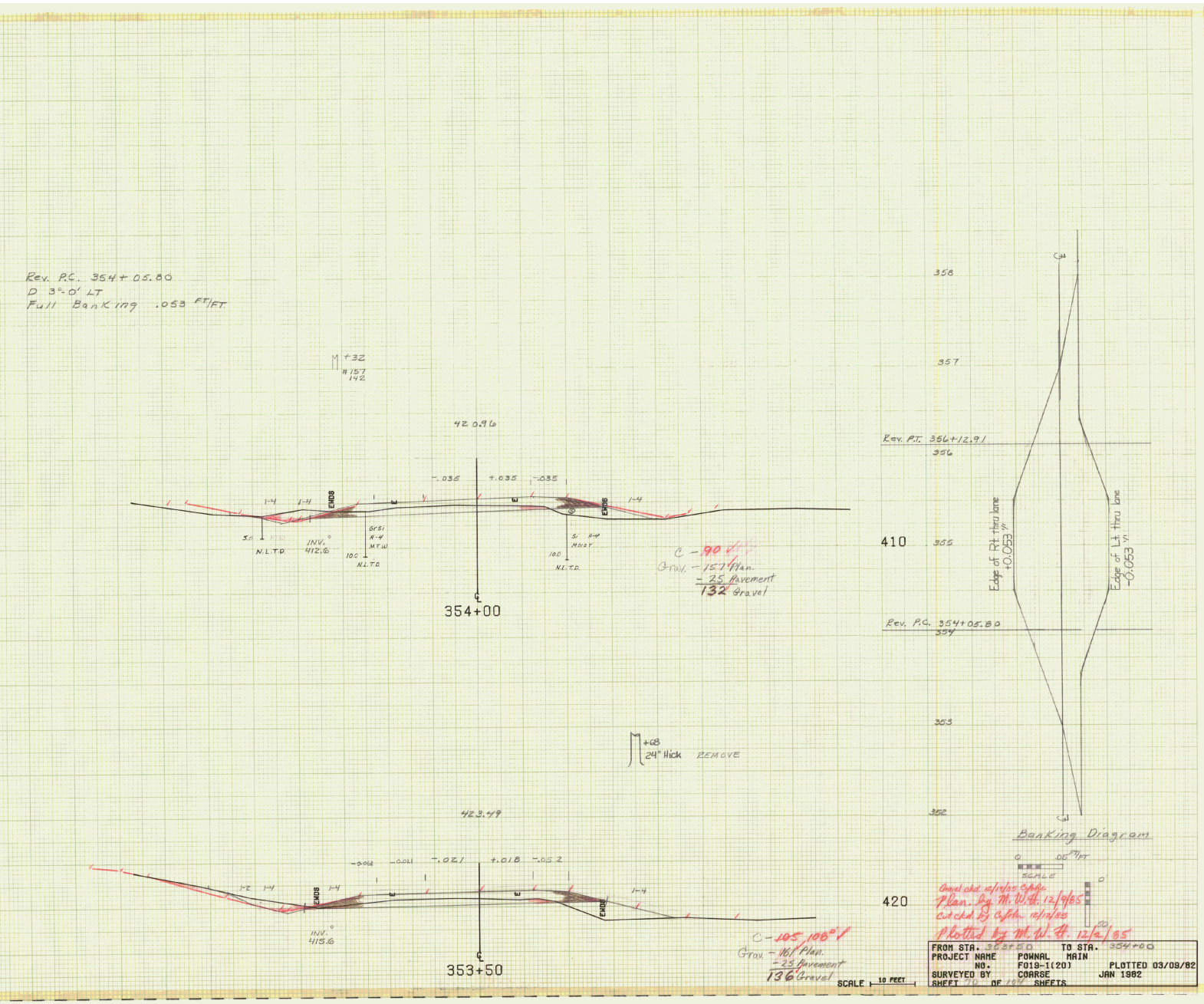


203.31
203.15
Sand Borrow & Undercut
Station
Dist
Area
Vol. Sq
350+80
+58
+90
Butt
+90
Same as 35H0
351+00
+50
+66
Butt
+66
+75
352+0
+05
8
32
10
50
16
9
25
5
0
28
48
111
111
130
133
54
54
8
2
4'
45'
41'
223'
78'
77
18'
29'
1'
439 cy
Bladder
22x5x8
22x2.5x2.5
880
137.5'
38'
Total
480 cy to pg 28 Bk 1
477 cy
+61
4"Sp SAVE
+58
#158
143
427.71
-.063 -.021 -.016 -.010
1-2
1-4
ENDS
1-4
E
E
ENDS
1-4
INV 420.6
420
C- 134 124
Grav.- 156 Plan.
- 25 Pavement
131 Gravel
352+50
+47
18" Tam SAVE
351+98 LT
Begin 6"x600' Underdrain
F.B. @ 351+98 LT
Sand Borrow & Cut = 2
420
+28
18" TAM SAVE
352+05 Butt Section Sand Undercut
429.39
-.063 -.018 -.016 -.021
ENDS
1-2
1-4
1-4
E
E
ENDS
1-4
MOIST
Si Gr
ALTD
424.5
INV 421.5
SA Gr
SA Si
MOIST
N.L.T.D
8 cut
N-1-a
N-4
N-1-b
Si Gr
N-4
Si
MTW
N.L.T.D
420
SB - 8
C - 166
Grav. - 176 Plan.
- 25 Pavement
151 Gravel
+98
6"Sp Remove
352+00
SCALE 10 FEET
cuts ckd. by Cyfahr 12/12/85
Gravel ckd. by Cyfahr 12/19/85
Cuts and gravel plan by M.W.H. 12/9/85
Plotted by M.W.H. 12/2/85
Undercut plan & plotted M.W.H. 11/13/85
" " " HJW 11/13/85
FROM STA. 352+00 TO STA. 352+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 68 OF 104 SHEETS

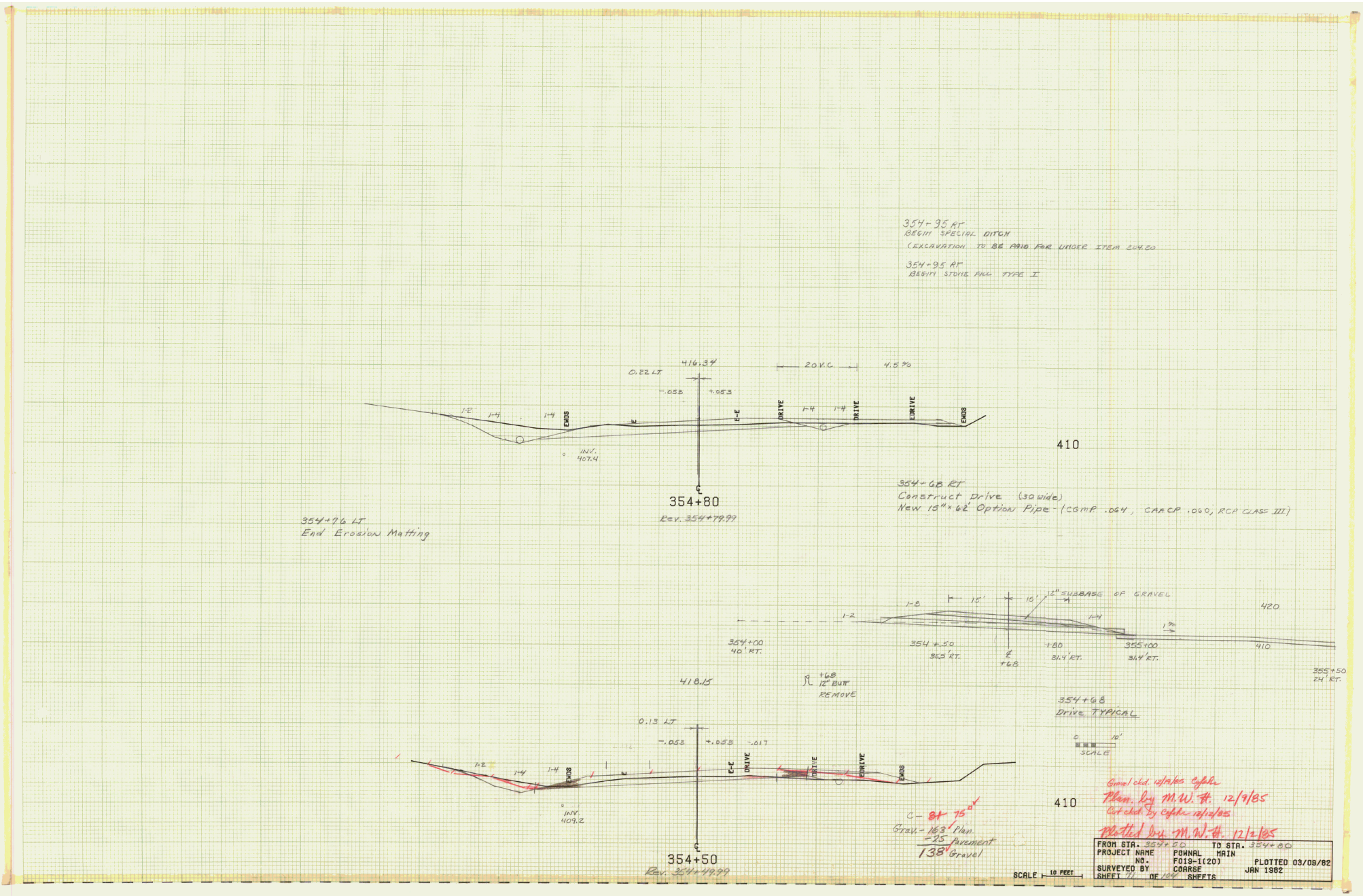


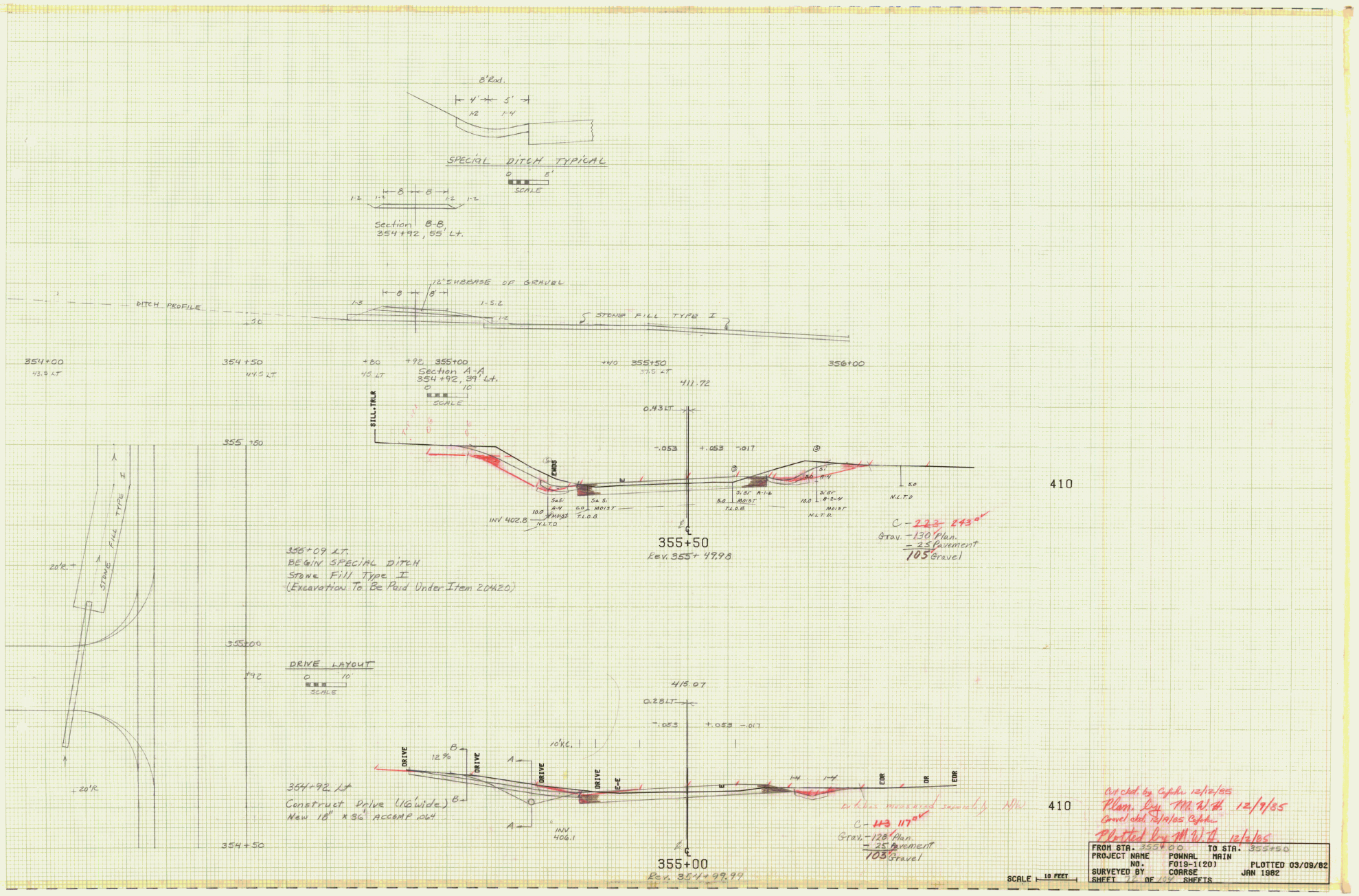
cuts ckd. by Cofer 12/12/85
Gravel ckd. by Cofer 12/19/85
Plan. by M.W.H. 12/9/85
Plotted by M.W.H. 12/2/85

FROM STA. 352+80 TO STA. 353+00		
PROJECT NAME	POWNAL MAIN	
NO.	F019-1(20)	PLOTTED 03/09/82
SURVEYED BY	COARSE	JAN 1982
SHEET 69 OF 104 SHEETS		

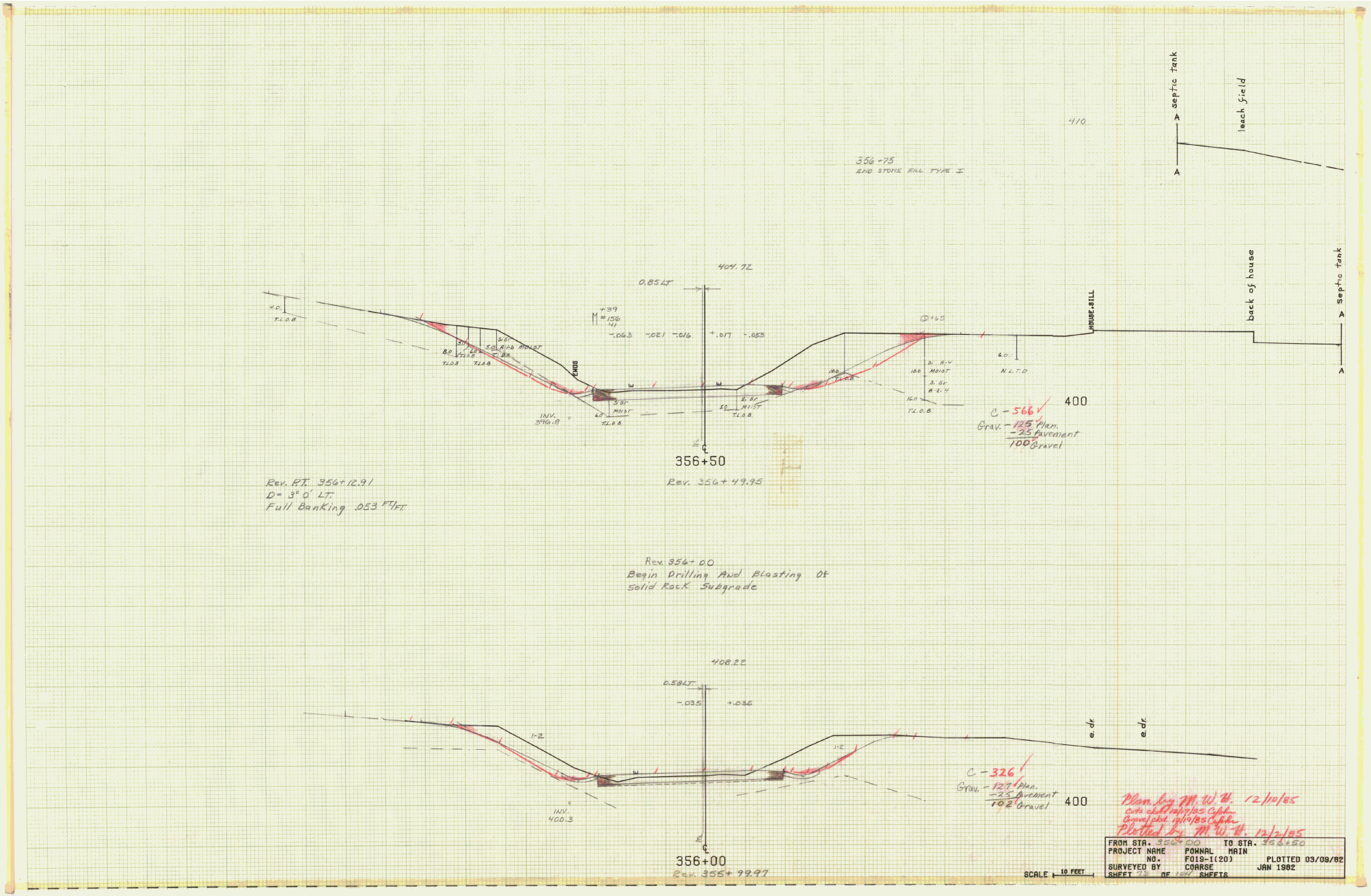


Rev. P.C. 354+05.80
D 3°-0' LT
Full Banking .053 FT/FT
+32
#157
142
420.96
-.035
+.035
-.035
1-4
1-4
ENDS
ENDS
1-4
5.0
N.L.T.D.
INV. 412.6
Gr Si
A-4
M.T.W.
10.0
N.L.T.D.
Si A-4
M.S.I.T.
10.0
N.L.T.D.
C - 90
Grav. - 157 Plan.
- 25 Pavement
132 Gravel
354+00
+68
24" Hick
REMOVE
423.49
-.062
-.021
-.021
+.018
-.052
1-2
1-4
ENDS
1-4
ENDS
1-4
INV. 415.6
C - 105 108°
Grav. - 161 Plan.
- 25 Pavement
136 Gravel
353+50
SCALE 10 FEET
358
357
Rev. P.T. 356+12.91
356
410
355
Edge of Rt. thru lane +0.053 "
Edge of Lt. thru lane -0.053 "
Rev. P.C. 354+05.80
354
353
352
420
Banking Diagram
0
.05 FT/FT
SCALE
0
50
Gravel ckd. 12/19/85 C.J.Fehr
Plan. by M.W.H. 12/9/85
Cut ckd. by C.J.Fehr 12/12/85
Plotted by M.W.H. 12/2/85
FROM STA. 353+50 TO STA. 354+00
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 70 OF 104 SHEETS


354+95 RT
BEGIN SPECIAL DITCH
(EXCAVATION TO BE PAID FOR UNDER ITEM 204.20
354+95 RT
BEGIN STONE FILL TYPE I
416.34
0.22 LT
20 V.C.
4.5%
-.053
+.053
1-2
1-4
1-4
EWDS
E
E-E
DRIVE
1-4
1-4
DRIVE
EDRIVE
EWDS
INV.
407.4
410
354+80
Rev. 354+79.99
354+68 RT
Construct Drive (30 wide)
New 15" x 62' Option Pipe - (CGMP .064, CAACP .060, RCP CLASS III)
354+76 LT
End Erosion Matting
1-8
15'
15'
12" SUBBASE OF GRAVEL
1-2
1-4
420
1%
354+00
40' RT.
354+50
35.5' RT.
+80
31.4' RT.
355+00
31.4' RT.
410
355+50
24' RT.
418.15
+68
12" BUTT
REMOVE
354+68
Drive TYPICAL
0
10'
SCALE
0.13 LT
-.053
+.053
-.017
1-2
1-4
1-4
EWDS
E
E-E
DRIVE
DRIVE
EDRIVE
EWDS
INV.
409.2
410
C- 81 75
Grav.- 163 Plan.
-25 Pavement
138 Gravel
354+50
Rev. 354+49.99
SCALE 10 FEET
Gravel ckd. 12/9/85 Cofahr
Plan. by M.W.H. 12/9/85
Cut ckd. by Cofahr 12/12/85
Plotted by M.W.H. 12/2/85
FROM STA. 354+50 TO STA. 354+80
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 71 OF 104 SHEETS



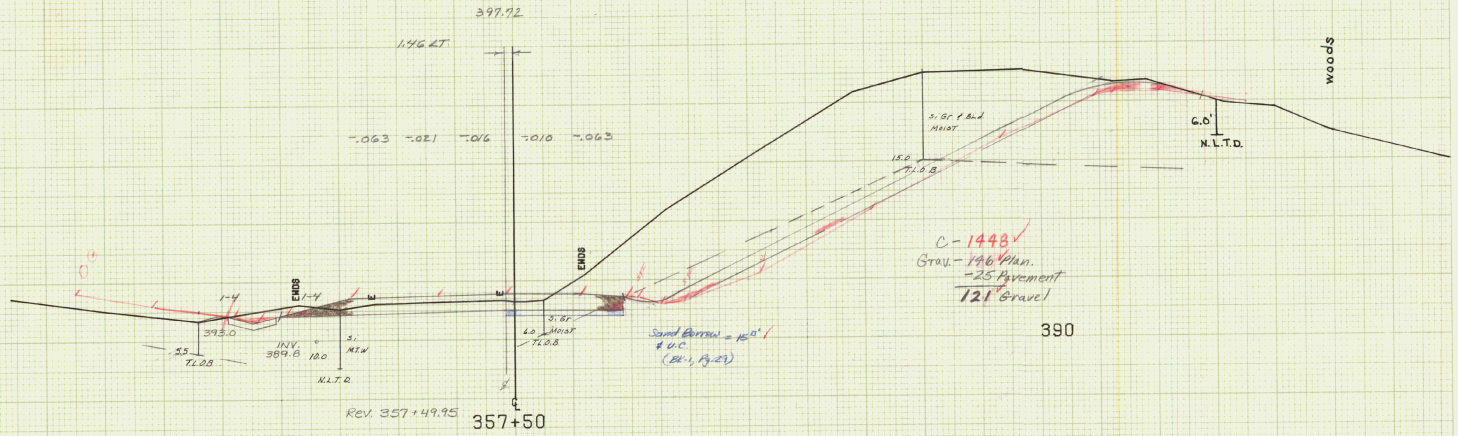
8' Rad.
4' 5'
1-2 1-4
SPECIAL DITCH TYPICAL
0 8'
SCALE
8 8
1-2 1-2 1-2 1-2
Section B-B
354+92, 55' Lt.
12" SUBBASE OF GRAVEL
8 8
1-3 1-5.2
1-2
DITCH PROFILE
STONE FILL TYPE I
354+00
43.5 LT
354+50
44.5 LT
+80
45 LT
+92 355+00
Section A-A
354+92, 39' Lt.
0 10
SCALE
+40 355+50
37.5 LT
356+00
411.72
0.43 LT
SILL.TRLR
-.053 +.053 -.017
ENDS
INV 402.8
N.L.T.D
MOIST
T.L.O.B
N.L.T.D.
5.0
410
C - ~~223~~ 243
Grav. - 130 Plan.
- 25 Pavement
105 Gravel
355+50
Rev. 355+49.98
355+09 LT.
BEGIN SPECIAL DITCH
Stone Fill Type I
(Excavation To Be Paid Under Item 204.20)
STONE FILL TYPE I
20'R.
355+00
+92
DRIVE LAYOUT
0 10
SCALE
415.07
0.28 LT
-.053 +.053 -.017
10' V.C.
DRIVE
12%
B
A
E-E
E
1-4 1-4
EDR
DR
EDR
354+92 Lt
Construct Drive (16' wide)
New 18" x 36' ACCGMP .064
INV. 406.1
Ditches measured separately N/W
410
C - ~~113~~ 117
Grav. - 128 Plan.
- 25 Pavement
103 Gravel
354+50
355+00
Rev. 354+99.99
SCALE 10 FEET
Cut ckd. by Cofchr 12/12/85
Plan. by M.W.H. 12/9/85
Gravel ckd. 12/9/85 Cofchr
Plotted by M.W.H. 12/2/85
FROM STA. 355+00 TO STA. 355+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 72 OF 104 SHEETS



Plan. by M. W. H. 12/10/85
Cuts ckd. 12/17/85 Cafohn
Gravel ckd. 12/19/85 Cafohn
Plotted by M. W. H. 12/2/85

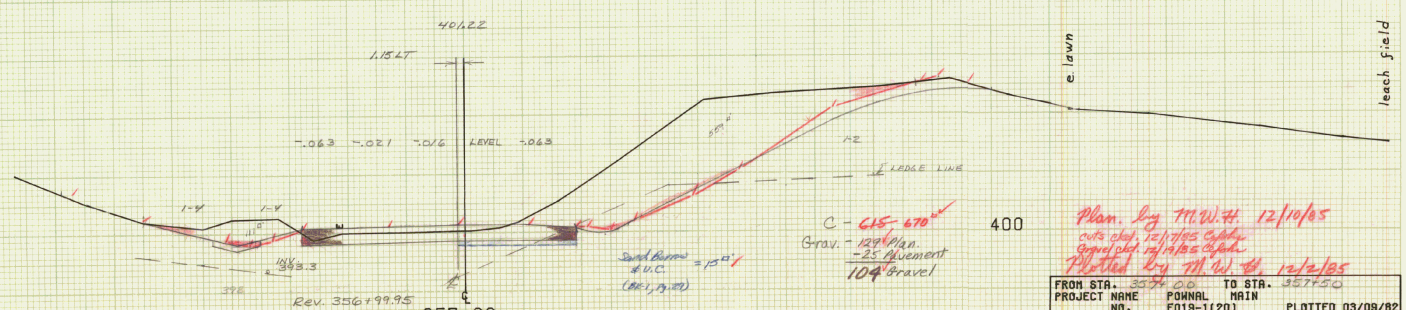
FROM STA. 356+00		TO STA. 356+50	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 72 OF 104 SHEETS			

Rev. 358+00 RT
END SPECIAL DITCH
(EXCAVATION TO BE PAID FOR UNDER ITEM 204.20)



355+50 RT ~ 357+50 RT
All Trees Which Do Not Interfere
With Slope Construction Will Be Saved

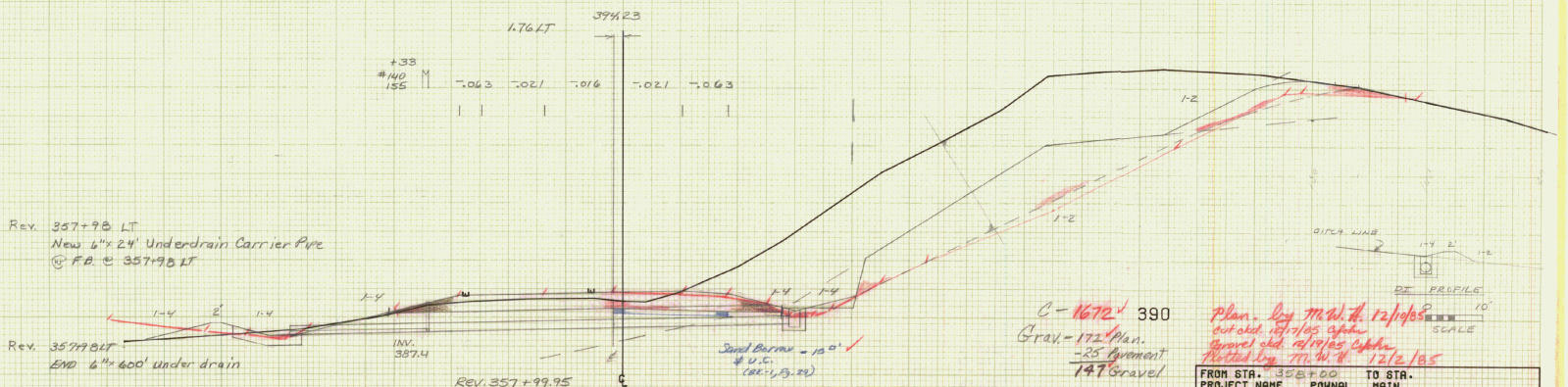
STATIONS: 357+00 RT ~ 359+75 RT
ITEM 203.31 - Sand Borrow
275' × 0.75' × 20' × 1/27 = 153 cy.
Bk. 1 - Pg. 29 ✓ cofehr 12/9/85



Plan. by M.W.H. 12/10/85
cuts chkd. 12/17/85 Cofehr
Gravel chkd. 12/19/85 Cofehr
Plotted by M.W.H. 12/2/85

SCALE 10 FEET

FROM STA. 357+00		TO STA. 357+50	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 74 OF 104 SHEETS			



C - 1672' 390

Grav. - 172' Plan.

-25 Pavement

147 Gravel

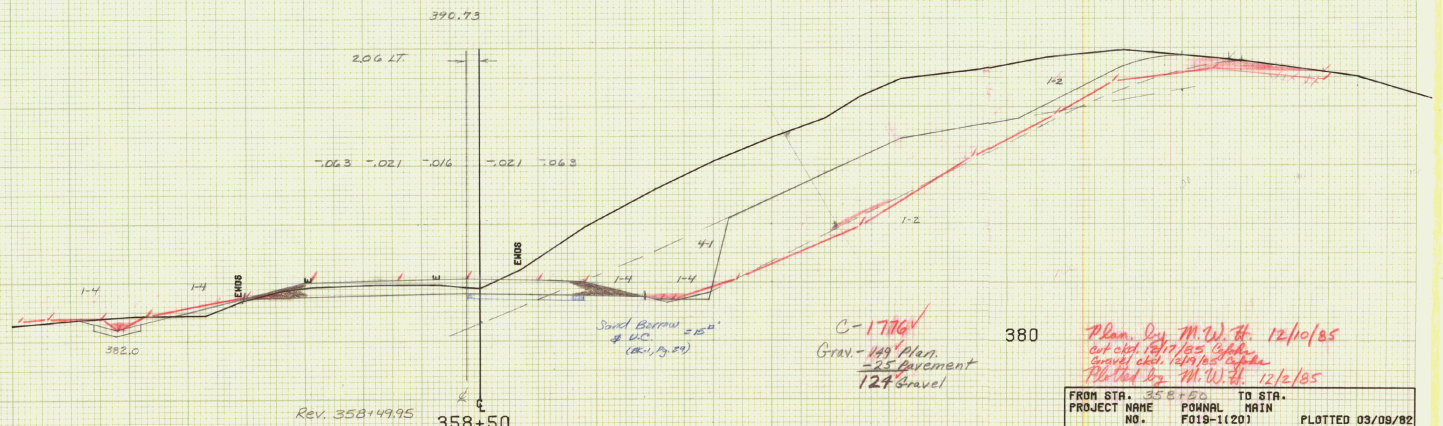
Plan by M.W.H. 12/16/85
cut okd. 12/17/85 cjohn
Gravel okd. 12/18/85 cjohn
Plotted by M.W.H. 12/2/85

SCALE 10 FEET

FROM STA. 358+00		TO STA.	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 24 OF 107 SHEETS			

SURV. 358+82 LT ~ SURV. 361+70 RT.
Discontinue Existing Water Line
(Plug Inlet as Directed By The Engineer)

Surv. 358+82 LT.
Spring Box - Do Not Disturb



C-1776
Grav.- 149 Plan.
-25 Pavement
124 Gravel

Plan. by M.W.H. 12/10/85
Cut ckd. 12/17/85 Cafoke
Gravel ckd. 12/19/85 Cafoke
Plotted by M.W.H. 12/2/85

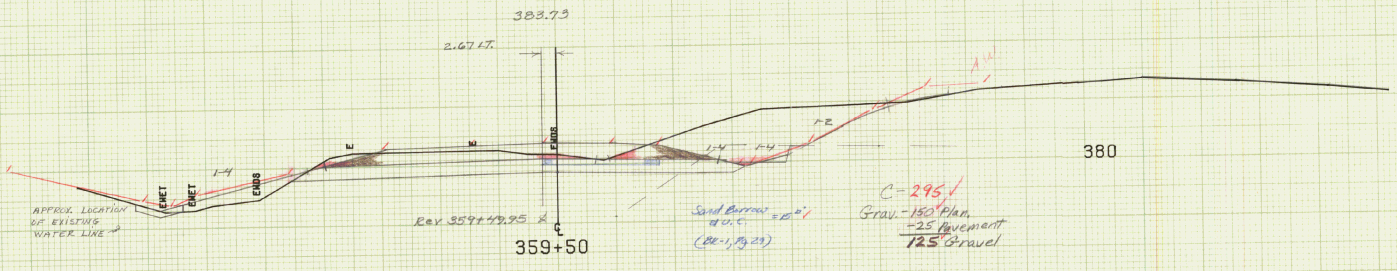
SCALE 10 FEET

FROM STA. 358+50		TO STA.	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 76	OF 104	SHEETS	

Surv. 359+53 Lt ~ Surv. 361+94 Lt.
Removal And Disposal
Of Existing Guard Rail

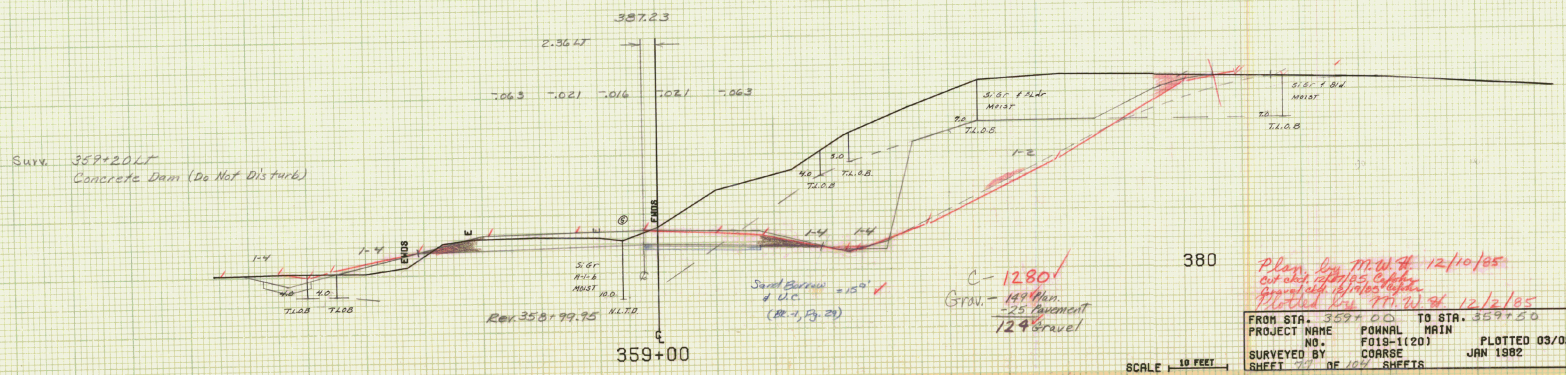
Rev. 359+75
END Drilling And Blasting Of
Solid Rock Subgrade

Sand Borrow = 15% ✓
@ U.C.
(EE-1, Pg. 29)



359+50 ± Lt
Begin New 2"x400' Steel Water Pipe, Galvanized
(New Pipe To Be Laid @ The Same Location As
Existing Water Pipe Or Within R.O.W.)
(All New Water Pipe Will Be Laid 3' Below
Finish Ground Elev @ That Point Or
As Directed By The Engineer)

Rev. 359+05 ~ 359+80
Cut To Fill Transition

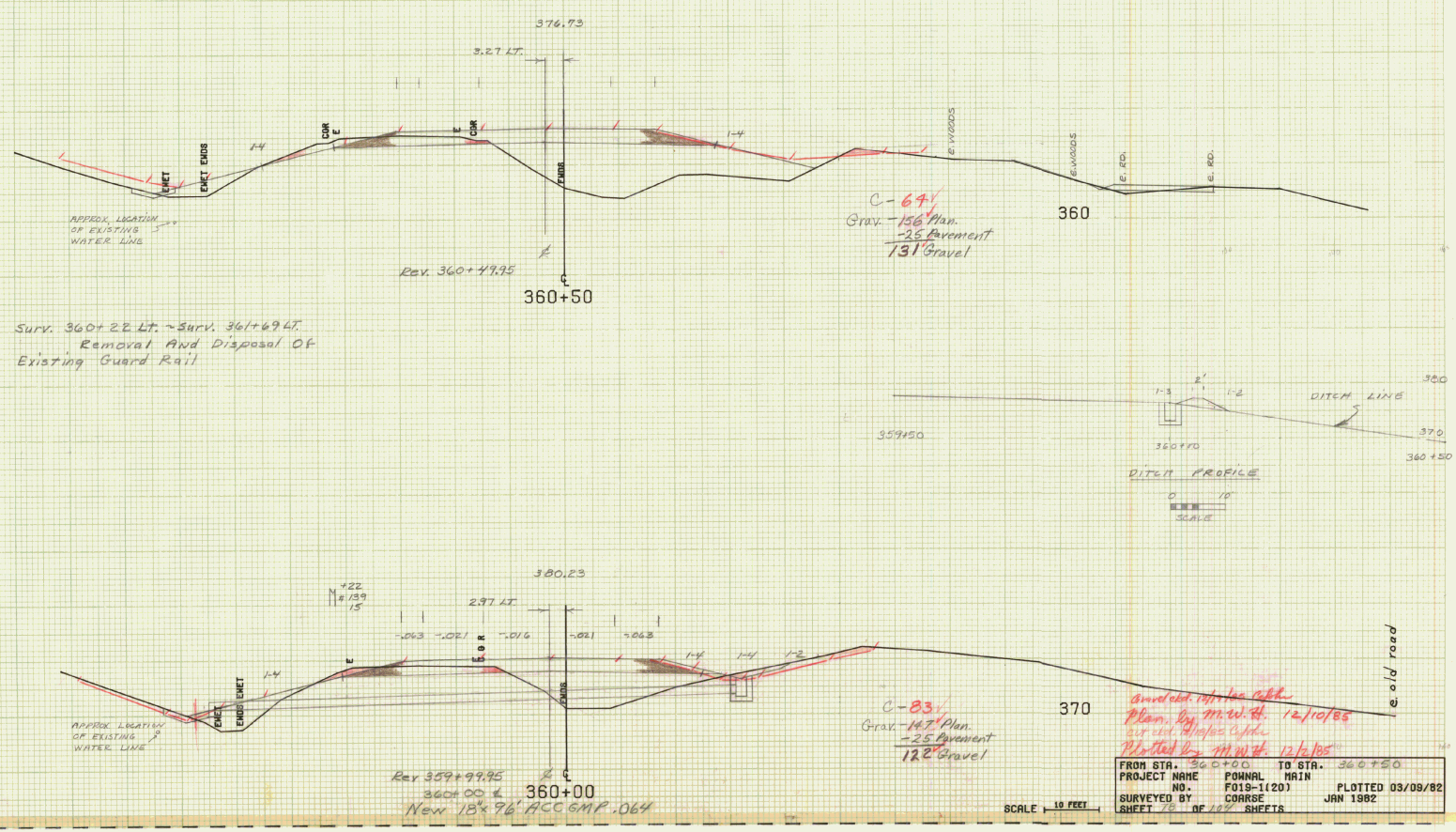


Surv. 359+20 Lt
Concrete Dam (Do Not Disturb)

Plan Qty. M.W.H. 12/10/85
Cut adj. right 85 C.Y.
Gravel adj. to plus 1 C.Y.
Plotted M.W.H. 12/2/85

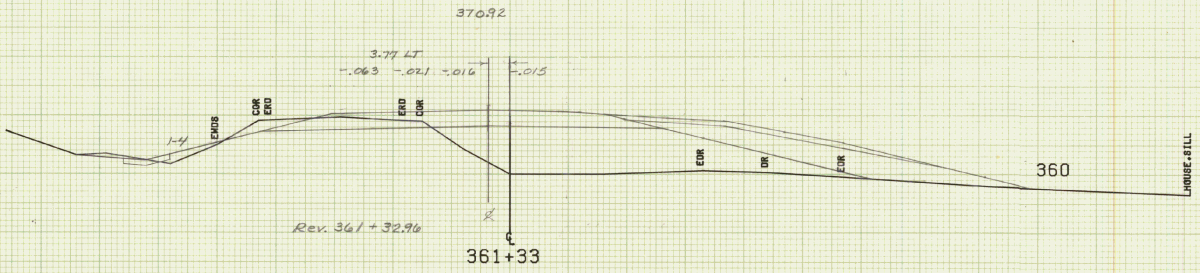
FROM STA. 359+00	TO STA. 359+50
PROJECT NAME	POWNAL MAIN
NO.	F019-1(20) PLOTTED 03/09/82
SURVEYED BY	COARSE JAN 1982
SHEET 77 OF 104 SHEETS	

SCALE 10 FEET

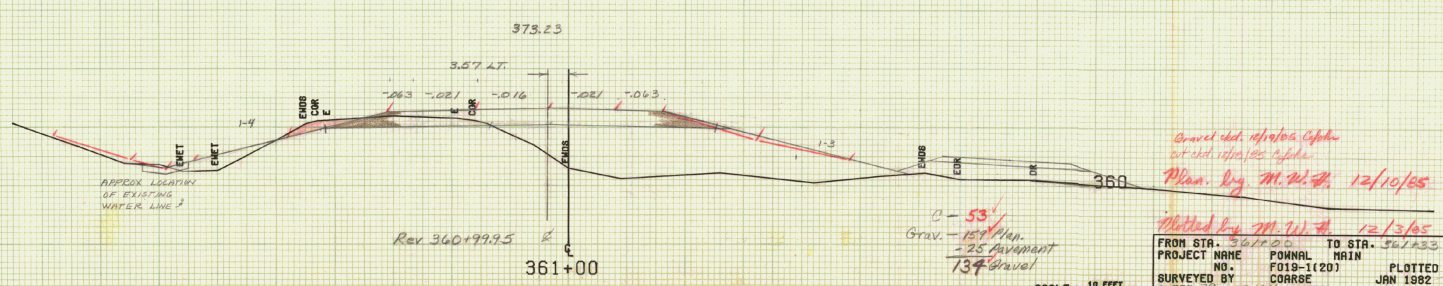


Gravel ckd. 12/10/85 Cafchr
Plan. by M.W.H. 12/10/85
Cut ckd. 12/10/85 Cafchr
Plotted by M.W.H. 12/2/85

FROM STA. 360+00		TO STA. 360+50	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 78 OF 104 SHEETS			



361+48RT.
Construct Drive (16' Wide)



Gravel ckd. 12/19/85 Cofoke
cut ckd. 12/18/85 Cofoke
Plan. by M.W.H. 12/10/85
Plotted by M.W.H. 12/3/85

C - 53
Grav. - 159 Plan.
- 25 Pavement
134 Gravel

SCALE 10 FEET

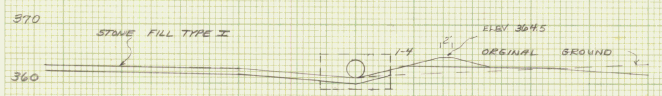
FROM STA. 361+00		TO STA. 361+33	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 79 OF 104 SHEETS			

Rev. 361+56 LT.
End Special Ditch @
Stone Fill Type I
(Excavation To Be Paid For Under Item 204.20)

Rev. 361+50 LT ~ 362+00 RT
New 36" x 12½ ACC GMP .079
@ Stone Fill Type II @ Outlet

Surv. 361+70 RT (40' RT)
Existing 5'x5' Conc. Spring Box - Remove Under 203.16 SOLID ROCK EXCAVATION
(Plug Outlet Water Pipes as Directed By The Engineer)

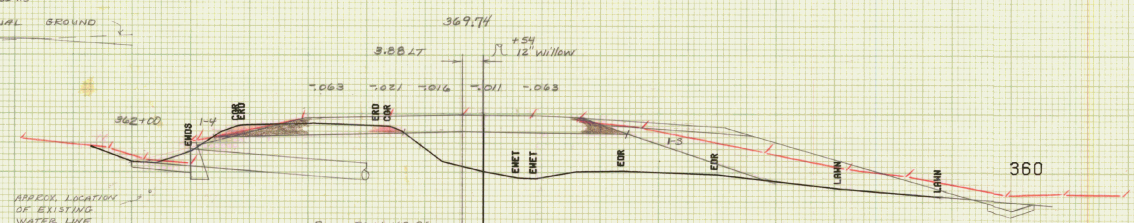
SURV. 361+55 RT. ~ 361+80 RT.
Existing 15" C.G.M.P. Remove



361+00

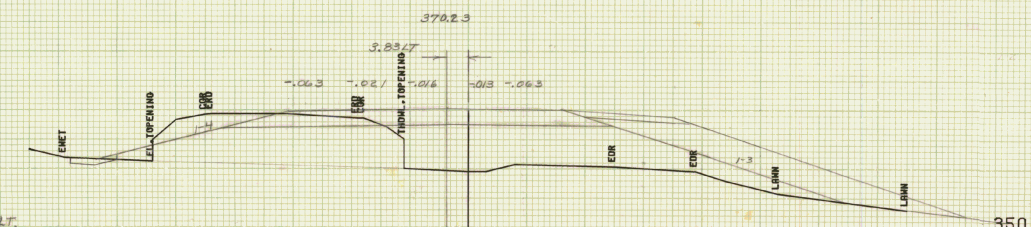
361+50

Ditch Profile
Scale 0 10'



361+50

C-52
Plan. Grav 170
Pavement - 25
Grav. = 145



Surv. 361+43 LT.
Existing 2'x2' Concrete Box Remove

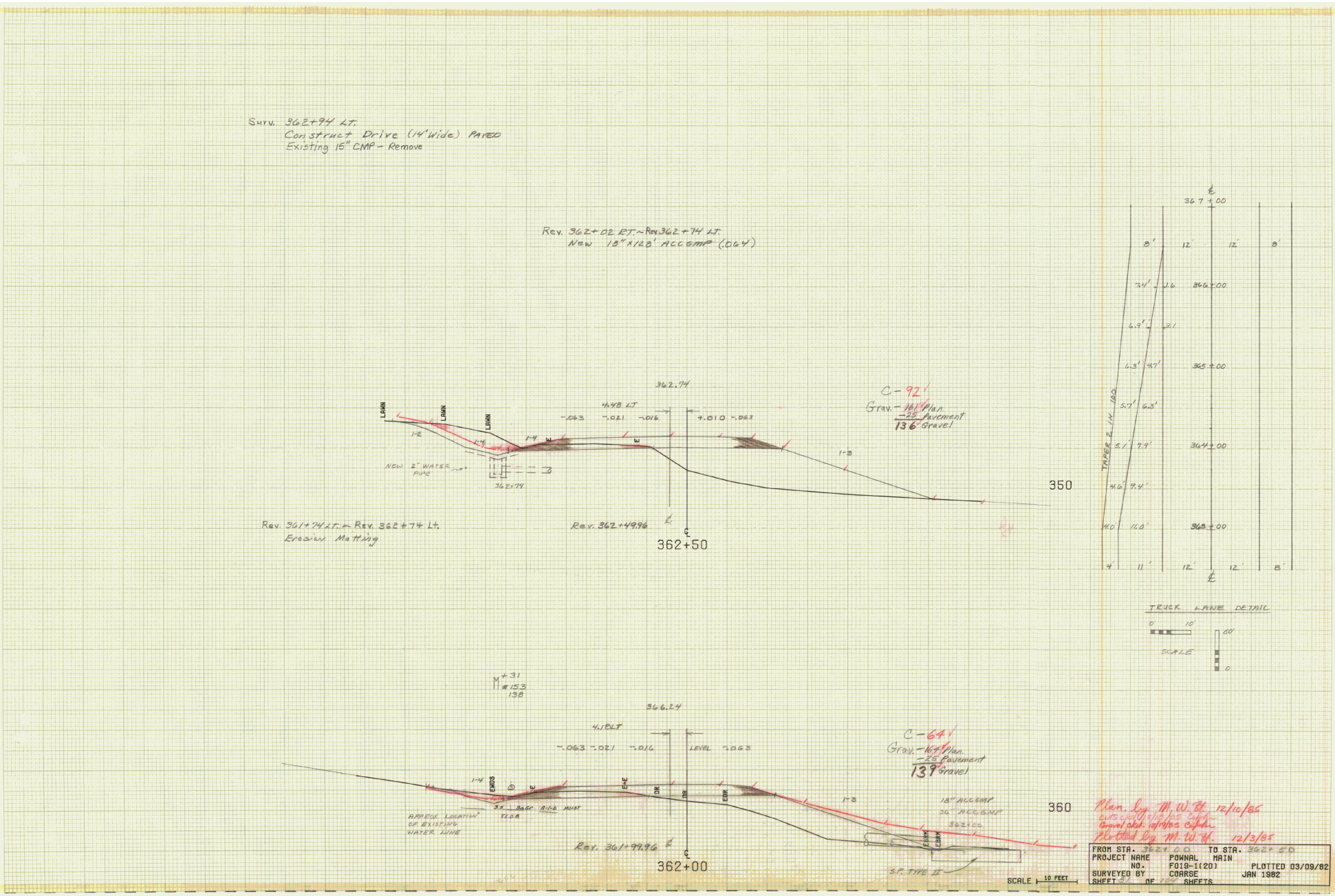
Rev. 361+42.96

361+43

SCALE 10 FEET

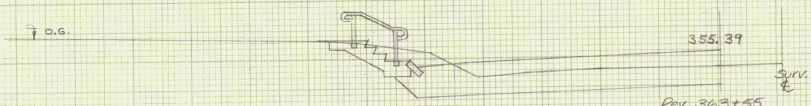
Plan. by M.W.H. 12/10/85
Ckd. 12/10/85 C.J.Sh
Gravel ckd. 12/10/85 C.J.Sh
Plotted by M.W.H. 12/3/85

FROM STA. 361+43		TO STA. 361+50	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 80 OF 104 SHEETS			



Surv. 362+94 LT.
Construct Drive (14' Wide) PAVED
Existing 15" CMP - Remove
Rev. 362+02 RT. ~ Rev. 362+74 LT.
New 18" x 128' ACCGMP (.064)
362.74
4.48 LT
-.063 -.021 -.016
+.010 -.063
C-92
Grav. - 161 Plan.
-25 Pavement
136 Gravel
LAWN
1-2
1-4
1-3
NEW 2" WATER PIPE
362+74
350
Rev. 361+74 LT. ~ Rev. 362+74 Lt.
Erosion Matting
Rev. 362+49.96
362+50
367+00
366+00
365+00
364+00
363+00
TAPER 2 IN 100
TRUCK LANE DETAIL
SCALE
M +31
#153
138
366.24
4.18 LT
-.063 -.021 -.016
LEVEL -.063
C-64
Grav. - 164 Plan.
-25 Pavement
139 Gravel
EWDS
EDR
APPROX. LOCATION OF EXISTING WATER LINE
3.5 SaGr A-1-b MOIST
T.L.O.B.
18" ACCGMP
36" ACCGMP
362+00
360
Rev. 361+99.96
362+00
S.P. TYPE II
SCALE 10 FEET
Plan. by M.W.H. 12/10/85
Plotted by M.W.H. 12/3/85
FROM STA. 362+00 TO STA. 362+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 81 OF 104 SHEETS

Rev. 363+60 LT.
New Gate Valve @ Box



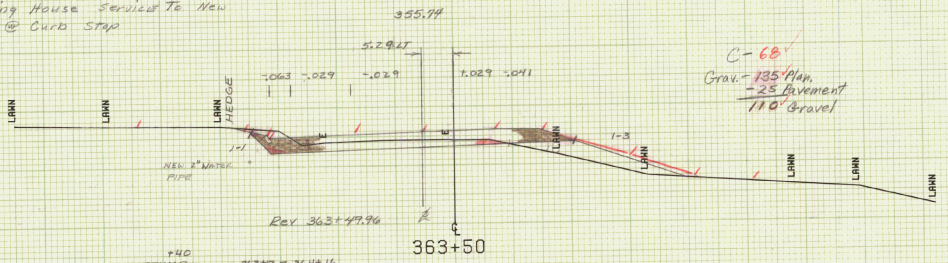
Rev. 363+55
(interpolated)

Detail of sidewalk and steps
Scale 0 5 10

363+55 Lt.
Remove and replace concrete walk and steps as directed by the Engineer.

See Standard J-2
Note: Concrete shall be class "B", or as directed by the Engineer.

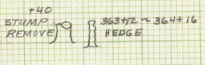
Rev. 363+50 ± Lt. (30' Lt)
End New 2" x 400' steel Water Pipe Galvanized
Begin New 1" x 1250' steel Water Pipe Galvanized
Connect Existing House Service To New 2" Water Main @ Curb Stop



C-68
Grav. - 135' Plan.
-25 Pavement
110' Gravel

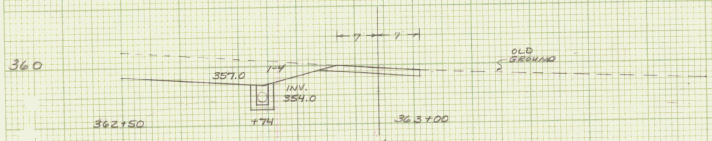
350

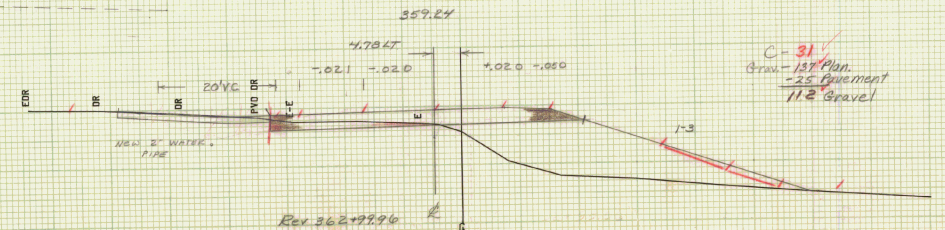
Rev. 363+14 Lt.
Begin Granite Slope Edging



Rev. P.C. 363+10.26
D. = 1°30' Lt
Full Banking @ 30 FT/FT

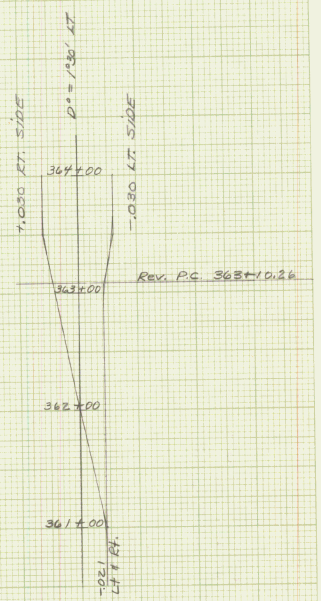
Rev. 363+00 Lt
Begin Truck Lane Taper
End Truck Lane





C-31
Grav. - 137' Plan.
-25 Pavement
112' Gravel

350



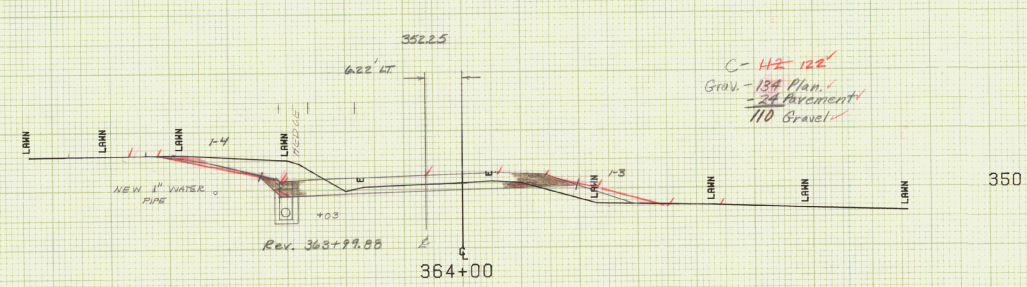
Banking Diagram
0 .050 .10 FT/FT
100'
50'
0

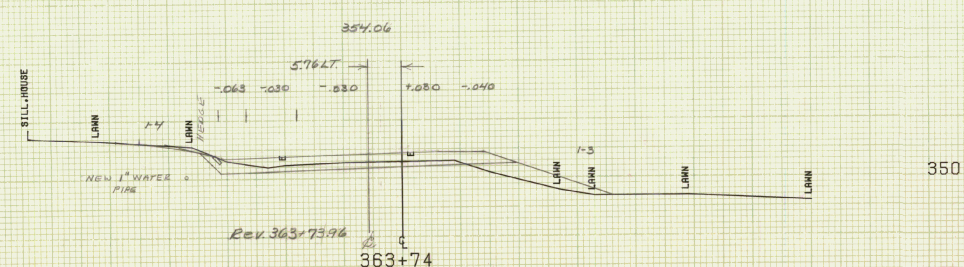
Plan by MWH 12/11/85
Quants Calc. by Mike Fox Coffee
Quant Chk. 12/19/85 Cpkh
Plotted by MWH 12/3/85

FROM STA. 363+00	TO STA. 365+50		
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)	PLOTTED 03/09/82	
SURVEYED BY	COARSE	JAN 1982	
SHEET 22 OF 104 SHEETS			

SCALE 10 FEET

Rev 364+15
Remove And Replace Concrete Walk
And Steps As Directed By The Engineer





Plan. by M.W.H. 12/11/85
cut ckd. 12/10/85 Cafshr
Gravel ckd. 1/6/86 Cafshr
Plotted by M.W.H. 12/3/85

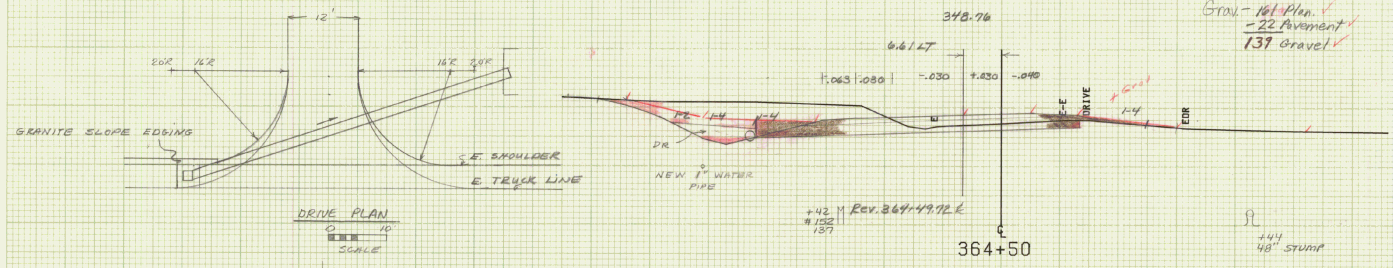
SCALE 10 FEET

FROM STA. 363+74		TO STA. 364+00	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 83 OF 104 SHEETS			

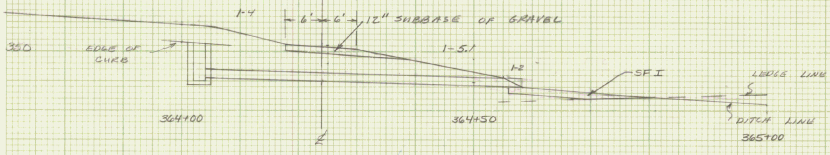
364+56 LT.
Begin Special Ditch ℄
Stone Fill Type I
(Excavation To Be Paid For Under Item 204.20)

Rev 364+50
Begin Drilling And Blasting Of
Solid Rock Subgrade

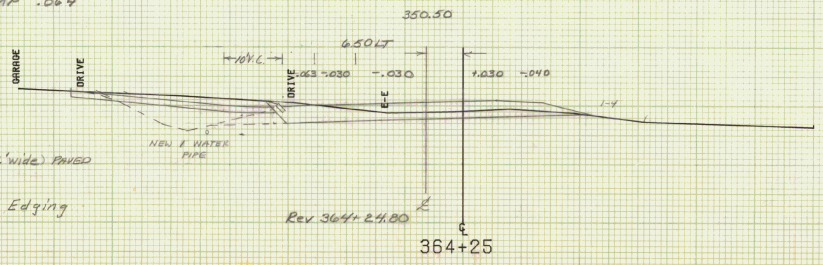
C – 263
Grav – 161 Plan.
– 22 Pavement
139 Gravel



340



364+05 LT – 364+56 LT.
New 18" x 58' ACCGMP .064



340

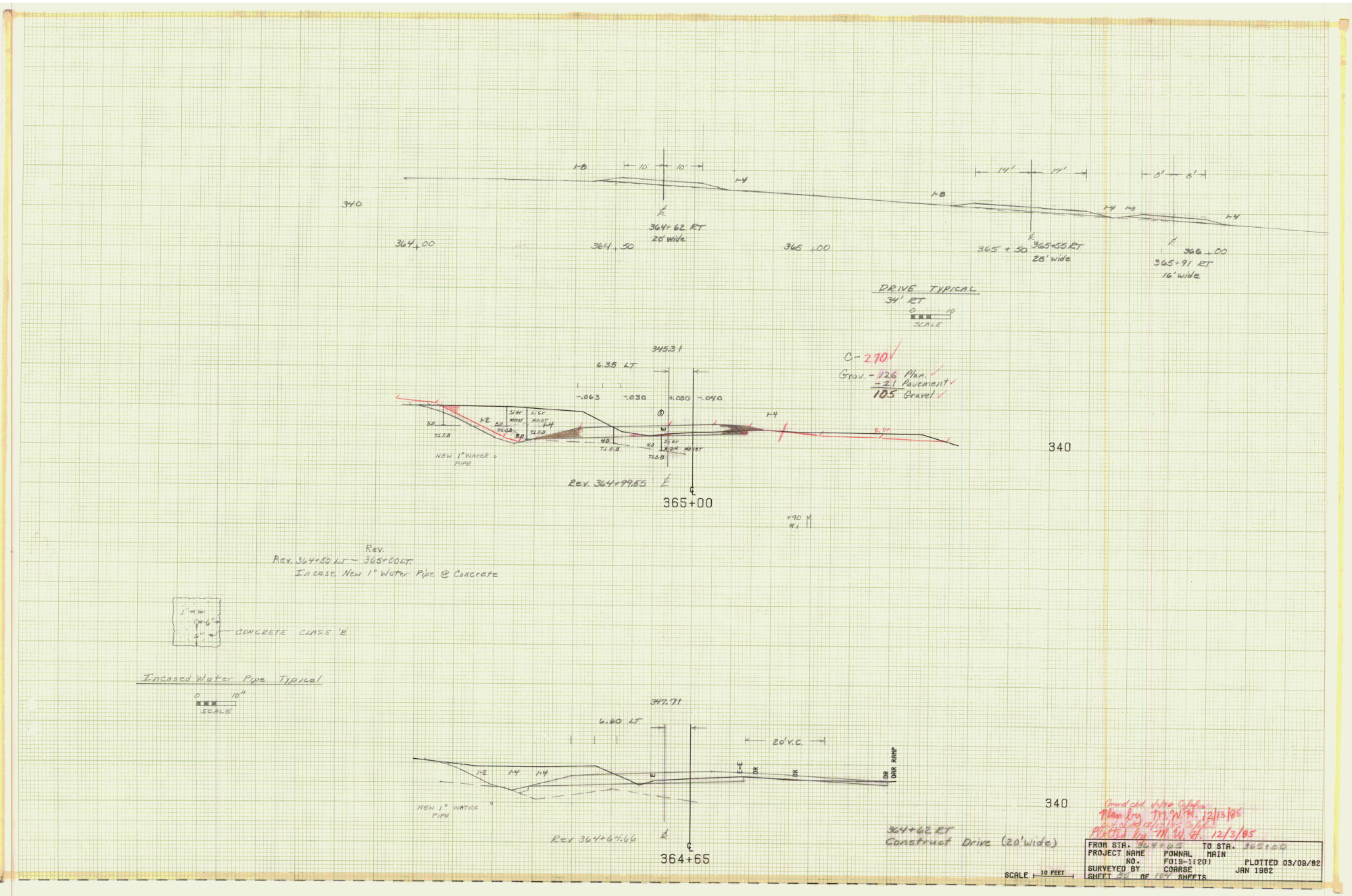
Surv. 364+24 LT
Construct Drive (12' wide) PAVED

Rev. 364+06 LT
End Granite Slope Edging

Generated before Cyfnd.
Plan, Dwg M.W.H. 12/13/85
outs ckd 12/16/85 Cyfnd.
Plotted by M.W.H 12/8/85

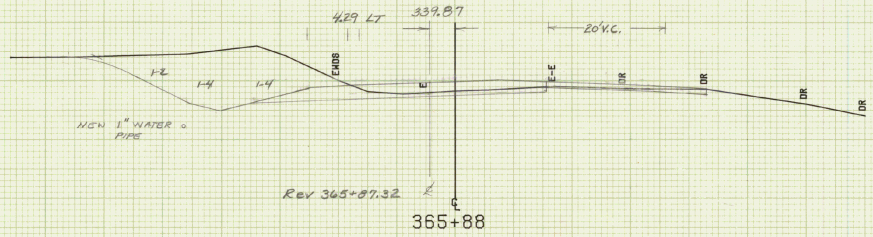
FROM STA. 364+25		TO STA. 364+50	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)	PLOTTED 03/09/82	
SURVEYED BY	COARSE	JAN 1982	
SHEET 24 OF 102 SHEETS			

SCALE 10 FEET



340
1-8
10'
10'
1-4
1-8
14'
14'
8'
8'
1-4
1-8
1-4
364+62 RT
20' wide
364+00
364+50
365+00
365+50
365+55 RT
28' wide
366+00
365+91 RT
16' wide
DRIVE TYPICAL
34' RT
0 10
SCALE
345.31
6.35 LT
-.063
-.030
+.030
-.040
1-2
1-4
1-4
NEW 1" WATER PIPE
Rev. 364+99.55
365+00
340
C-270
Grav. - 126 Plan.
-21 Pavement
105 Gravel
Rev. 364+50 LT ~ Rev. 365+00 LT.
Incase New 1" Water Pipe @ Concrete
CONCRETE CLASS 'B'
Incased Water Pipe Typical
0 10"
SCALE
347.71
6.60 LT
20' V.C.
1-2
1-4
1-4
E-E
DR
DR
DR
OAR RAMP
NEW 1" WATER PIPE
Rev 364+64.66
364+65
340
364+62 RT
Construct Drive (20' wide)
SCALE 10 FEET
Grand ckd 4/1/86 Cafeles
Plan by M.W.H. 12/13/85
Grd ckd 12/13/85 Cafeles
Plotted by M.W.H. 12/3/85
FROM STA. 364+65 TO STA. 365+00
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 85 OF 104 SHEETS

Rev. 365+91 RT.
Construct Drive (16' wide) Paved.



330

Rev. 365+55 RT
Construct Drive (28' wide)



340

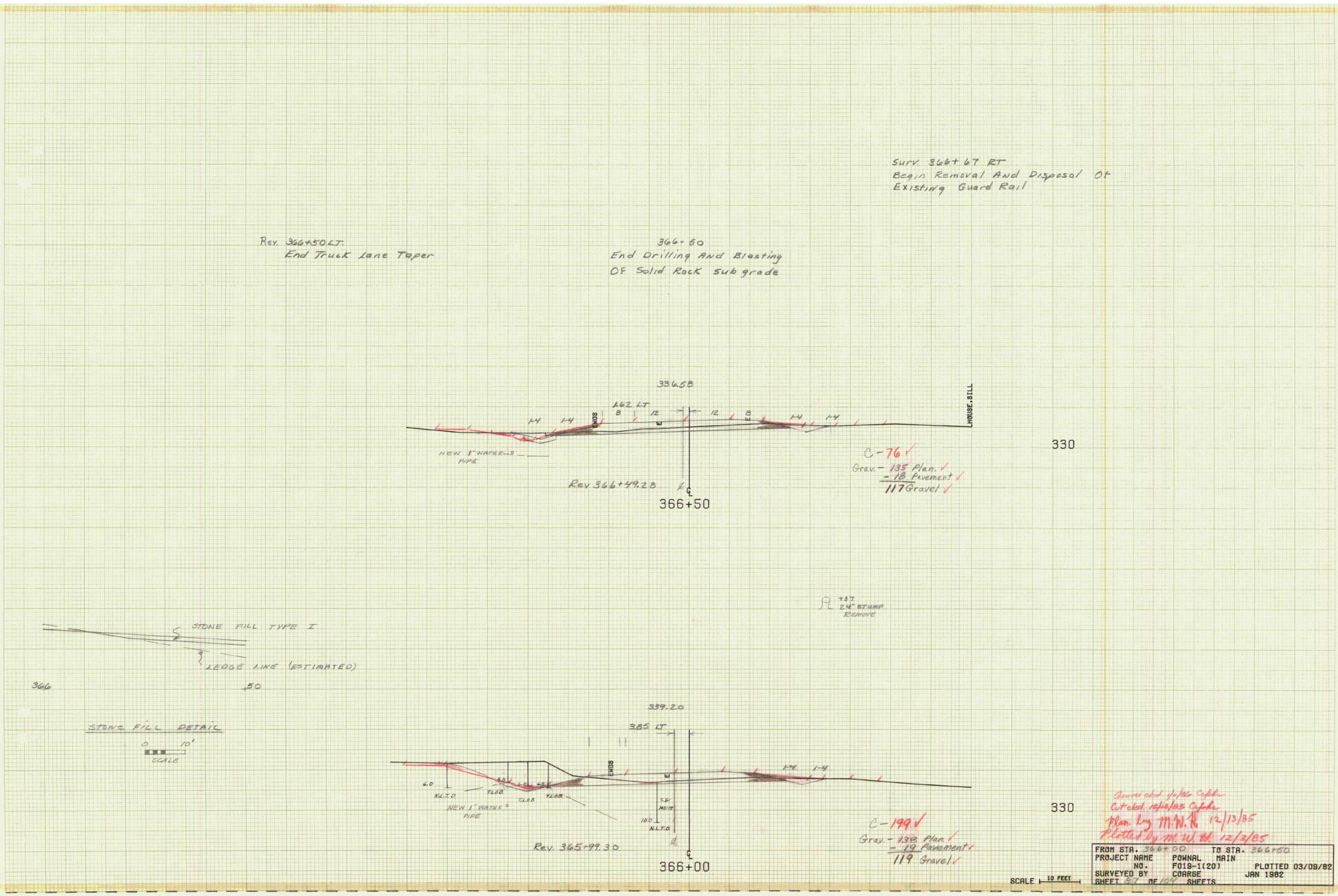
C-532
Grav. - ~~137~~ 150 Plan.
-20 Pavement
~~117~~ 130 Gravel

Gravel abd. 1/6/86 Cafeteria
cut abd. 12/18/85 Cafeteria

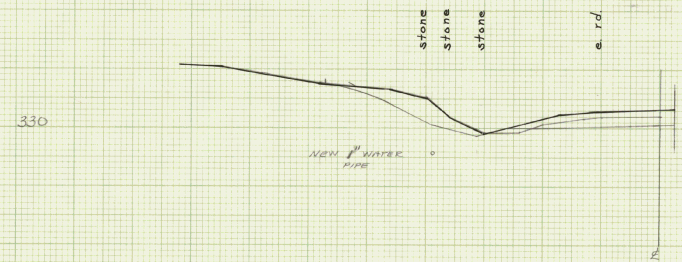
Plan by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85

SCALE 10 FEET

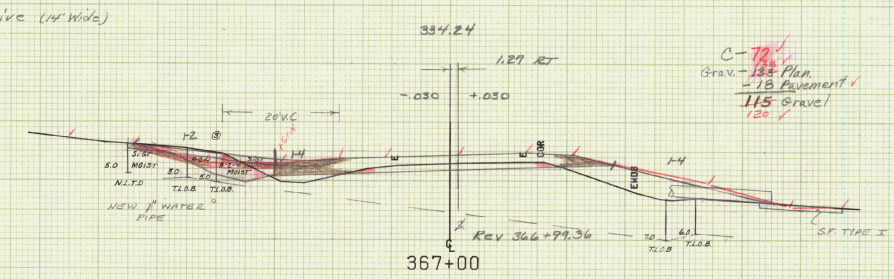
FROM STA. 365+50		TO STA. 365+88	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 86 OF 104 SHEETS			


Surv. 366+67 RT
Begin Removal And Disposal Of
Existing Guard Rail
Rev. 366+50 LT.
End Truck Lane Taper
366+50
End Drilling And Blasting
Of Solid Rock Subgrade
336.58
1.62 LT
1-4
1-4
EWDS
8
12
12
8
1-4
1-4
HOUSE.SILL
NEW 1" WATER PIPE
Rev 366+49.28
366+50
C-76
Grav.- 135 Plan.
- 18 Pavement
117 Gravel
330
+37
24" STUMP
REMOVE
STONE FILL TYPE I
LEDGE LINE (ESTIMATED)
366
50
STONE FILL DETAIL
0
10'
SCALE
339.20
3.85 LT
EWDS
1-4
1-4
6.0
N.L.T.D.
T.L.O.B.
T.L.O.B.
T.L.O.B.
NEW 1" WATER PIPE
S.G. MUST
10.0
N.L.T.D.
Rev. 365+99.30
366+00
C-199
Grav.- 138 Plan.
- 19 Pavement
119 Gravel
330
SCALE 10 FEET
Gravel ckd. 1/4/86 Cafche
Cut ckd. 12/18/85 Cafche
Plan. by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85
FROM STA. 366+00 TO STA. 366+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 67 OF 104 SHEETS

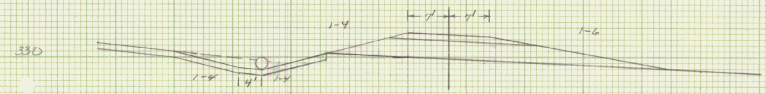
Rev. 367+45 LT
Begin Erosion Matting



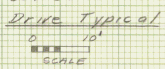
Rev. 367+07 LT
Construct Drive (14' Wide)



366+86 LT
End Special Ditch @ Stone Fill Type II
(Excavation To Be Paid For Under Item 209.22)

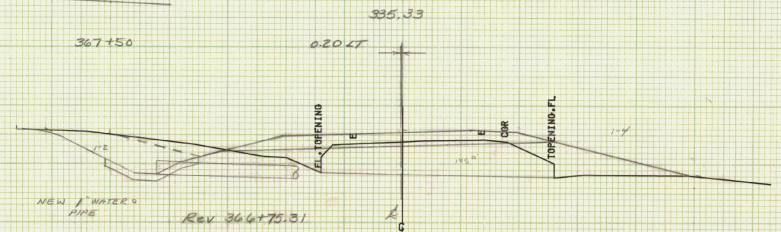


367+07 LT
Drive Type C-1



+89
M #11
150
135

Rev.
Rev. 366+75 LT - 367+00 RT
New 24" x 100' ACC GMP .064
@ Stone Fill Type I @ Outlet



Ground skd. 11/6a Cyfd.
cor skd. 12/9/85 Cyfd.
Plan. by M. W. B. 12/12/85
Plotted by M. W. W. 12/13/85

FROM STA. 366+76	TO STA. 367+00
PROJECT NAME	POWNAL MAIN
NO.	F019-1(20)
SURVEYED BY	COARSE JAN 1982
SHEET 28	OF 104 SHEETS

PLOTTED 03/09/82

SCALE 10 FEET

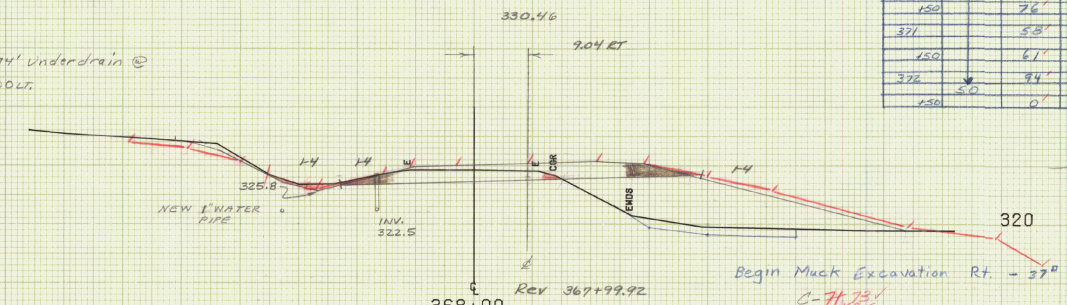
MUCK EXCAVATION

367+50		0'	
	5.0		34'
368		37'	
			73'
+50		42'	
			96'
369		62'	
			77'
+50		21'	
			62'
370		46'	
			113'
+50		76'	
			124'
371		58'	
			110'
+50		61'	
			144'
372		94'	
	5.0		87'
+50		0'	

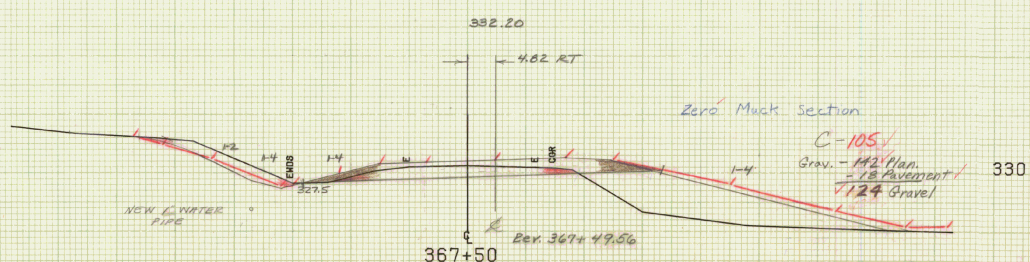
Designed area
582 cy to Bk 1 pg 24

920 cy NW 6/11/85
- 582
338 cy to Bk 1 pg 24
M.W.H. 6/11/85

Rev. 368+00 LT
Begin 6"x 274' underdrain @
F.B @ 368+00 LT.



Begin Muck Excavation Rt. - 37'
C-71 73
Grav. - ~~146~~ 145 Plan.
- 18 Pavement
128 Gravel
132

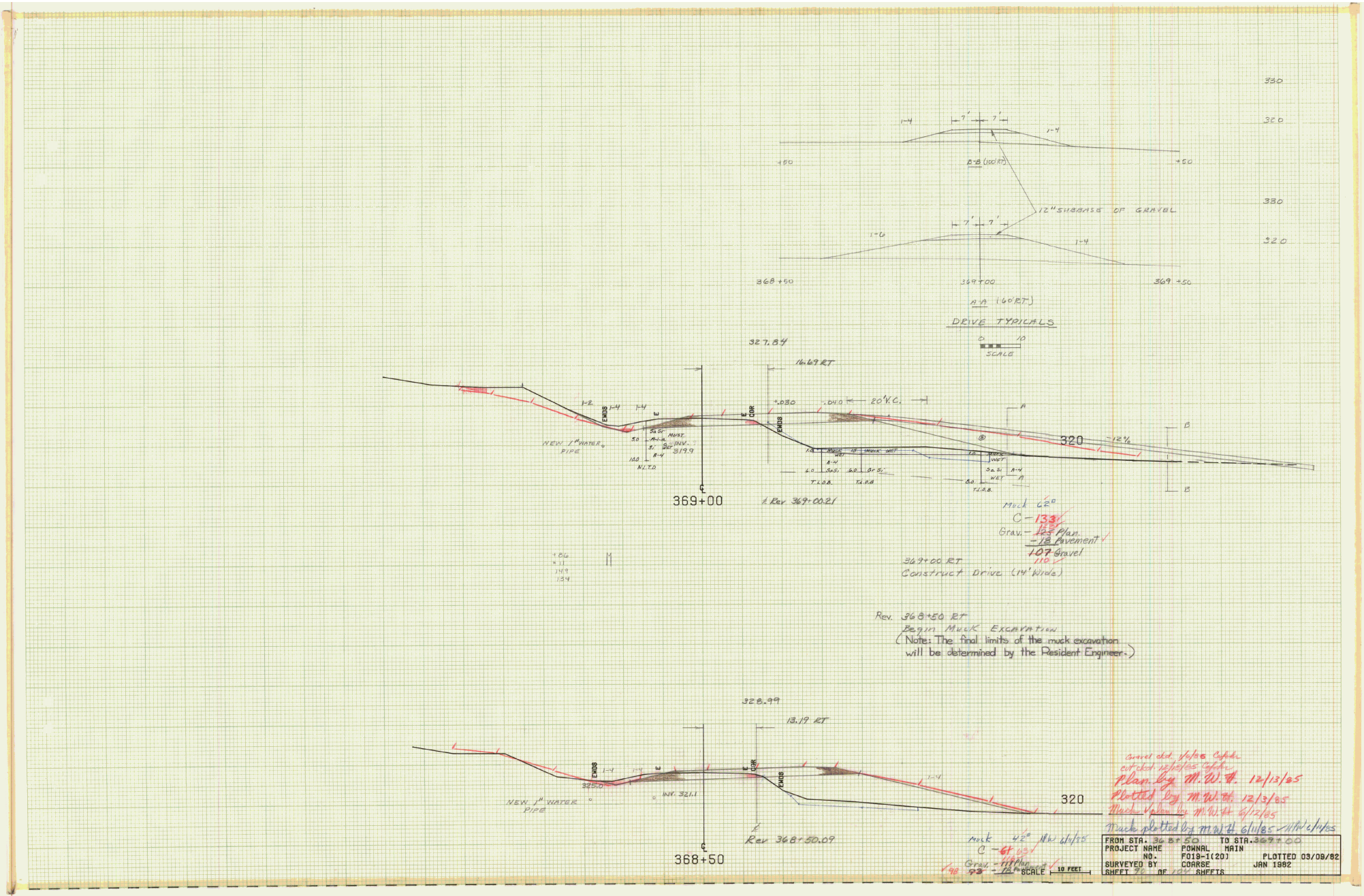


Zero Muck Section
C-105
Grav. - 142 Plan.
- 18 Pavement
124 Gravel

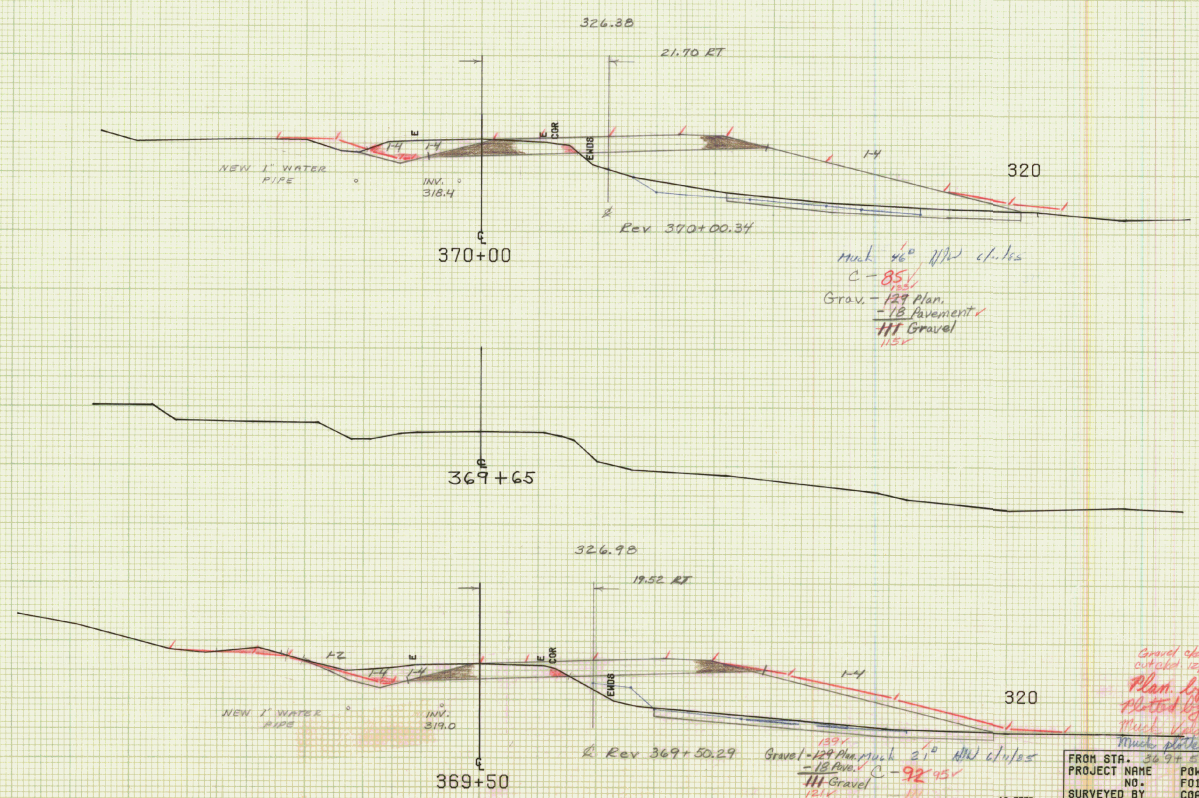
Gravel ckd. 4/6/86 C.J.Pohn
out ckd. 12/18/85 C.J.Pohn
Plan. by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85
Muck Plan NRW 6/11/85
Muck Plan M.W.H. 6/12/85
Muck plotted by M.W.H. 6/11/85 HJW 6/11/85

SCALE 10 FEET

FROM STA. 367+50		TO STA. 368+00	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 89 OF 104 SHEETS			



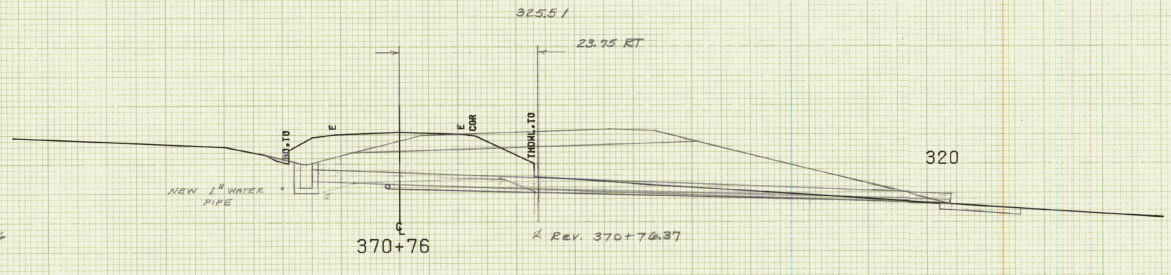
330
320
1-4
7'
7'
+50
B-B (100' RT)
12" SUBBASE OF GRAVEL
1-6
368+50
369+00
369+50
A-A (60' RT)
DRIVE TYPICALS
0 10
SCALE
327.84
16.69 RT
+.030
-.040
20' V.C.
EWDS
E
COR
NEW 1" WATER PIPE
INV. 319.9
320
-12%
369+00
℄ Rev 369+00.21
Muck 62°
C - 133
Grav. - 125 Plan.
- 18 Pavement
107 Gravel
110
369+00 RT
Construct Drive (14' Wide)
Rev. 368+50 RT
Begin Muck Excavation
(Note: The final limits of the muck excavation will be determined by the Resident Engineer.)
328.99
13.19 RT
325.0
INV. 321.1
NEW 1" WATER PIPE
Rev 368+50.09
368+50
Muck 42° NW 6/11/85
C - 61 63
Grav. - 118 Plan
98 93 - 18 Pavement
SCALE 10 FEET
Gravel ckd. 1/6/86 Cofeder
cut ckd. 12/18/85 Cofeder
Plan. by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85
Muck V plan by M.W.H. 6/12/85
Muck plotted by M.W.H. 6/11/85 - HW 6/11/85
FROM STA. 368+50 TO STA. 369+00
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 90 OF 104 SHEETS



Gravel ckd. 1/6/86 Cofoke
cut ckd. 12/13/85 Cofoke
Plan. by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85
Muck Valan by M.W.H. 6/11/85
Muck plotted by M.W.H. 6/11/85 MWH 6/11/85

FROM STA. 369+50		TO STA. 370+00	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 91 OF 104 SHEETS			

Rev. 370+78 LT.
Begin 6"x 320' Underdrain @
F.B. @ 370+78 LT.



Rev. 370+76 LT.
End EROSION MATTING

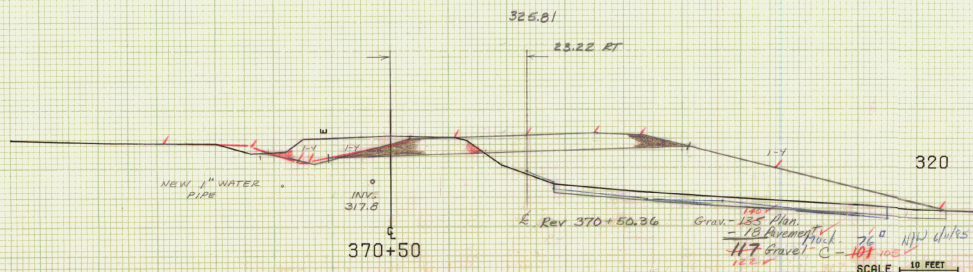
Rev. 370+74 LT.
END 6"x 274' Underdrain

Surv. 370+73 LT.
Existing 4" P.V.C. Retain

Rev. 370+50 LT. ~ Rev. 371+00 LT.
Incase New 1" Water Pipe @ Concrete
(See Sheet 85 OF 104 For Details.)

Surv 370+76
Existing 15" R.C.P. Remove
New 24"x110' ACC GMP .064 @
Stone FILL, Type I @ outlet

Rev. 370+74 ℄
New 6"x 98' Underdrain Carrier Pipe @
F.B. @ 370+74 LT.

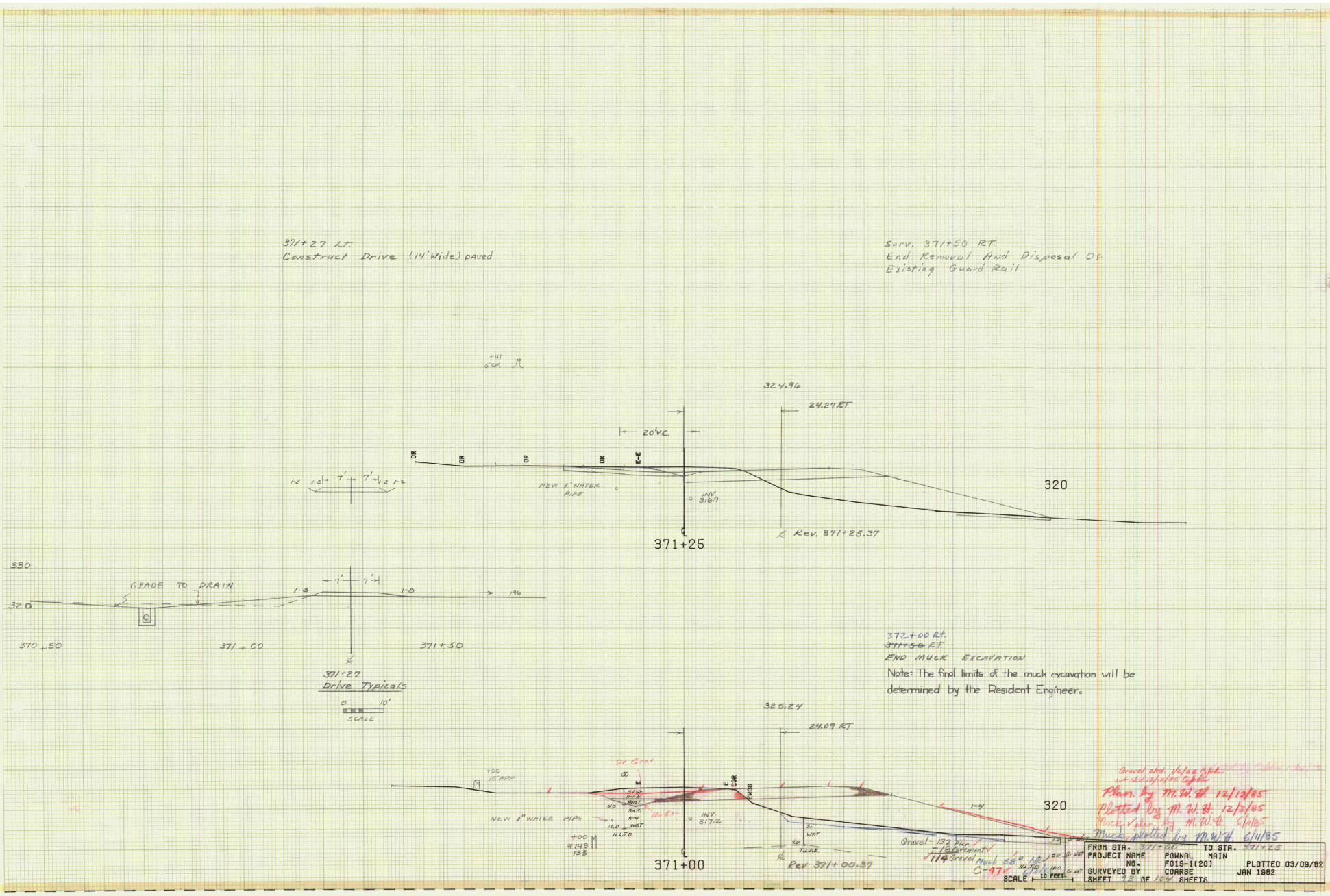


Gravel ckd. 11/6/86 Cafeby
cut ckd. 12/18/85 Cafeby
Plan. by M.W.H. 12/13/85
Plotted by M.W.H. 12/3/85
Muck ✓plan. by M.W.H. 6/11/85
Muck plotted by M.W.H. 6/11/85 MW 6/11/85

Grav. - ~~135~~ 140 Plan.
- 18 Pavement
~~117~~ 122 Gravel - Muck 76 C - ~~101~~ 108 NJW 6/11/85

SCALE 10 FEET

FROM STA. 370+58		TO STA. 370+76	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 92 OF 104 SHEETS			


371+27 LT.
Construct Drive (14' Wide) paved
Surv. 371+50 RT.
End Removal And Disposal Of
Existing Guard Rail
324.96
24.27 RT
20' V.C.
DR
E-E
NEW 1" WATER PIPE
INV 316.9
320
371+25
Rev. 371+25.37
330
320
GRADE TO DRAIN
1-3
1-8
1%
370+50
371+00
371+50
371+27
Drive Typicals
SCALE
372+00 Rt.
~~371+50~~ RT.
END MUCK EXCAVATION
Note: The final limits of the muck excavation will be determined by the Resident Engineer.
325.24
24.09 RT
Dr. Grav
NEW 1" WATER PIPE
INV 317.2
+00 #148 133
371+00
Rev 371+00.37
Gravel - 132 Plan.
- 18 Pavement
114 Gravel
Muck 58
C-97
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/3/85
Muck plotted by M.W.H. 6/11/85
FROM STA. 371+00 TO STA. 371+25
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 93 OF 104 SHEETS
SCALE 10 FEET

Rev. 371+93 LT (36' LT.)
Connect Existing House Service To
New 1" Water Main @ Curb Stop

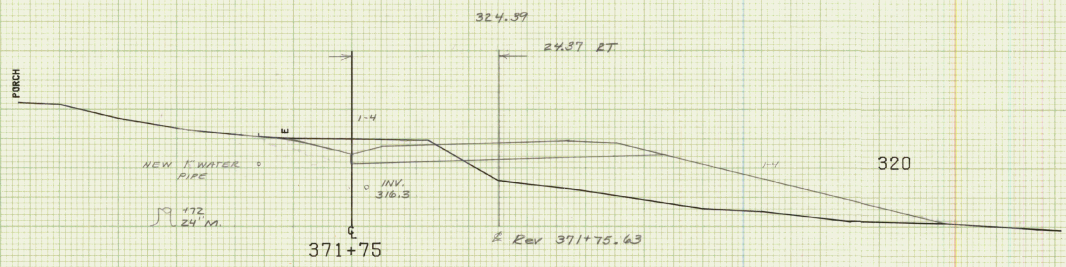
371+92 LT
Existing 4" Drain - Retain

Item 203.31
Sand Borrow

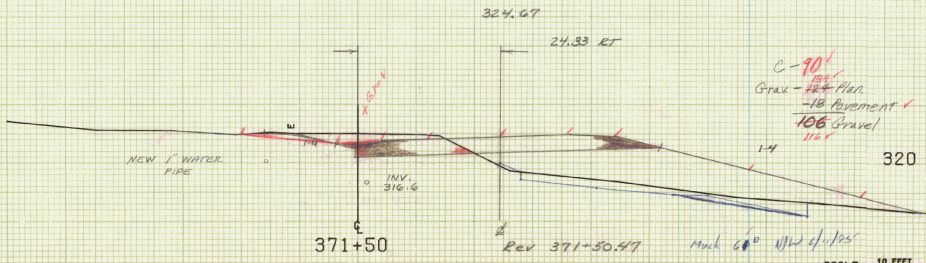
371 + 90 zero

+95
15" SP.

Rev. 371+75 LT
Begin Special Ditch To Be
Paid For Under Item 203.15
Common Excavation



371+50 LT
Begin Erosion Matting



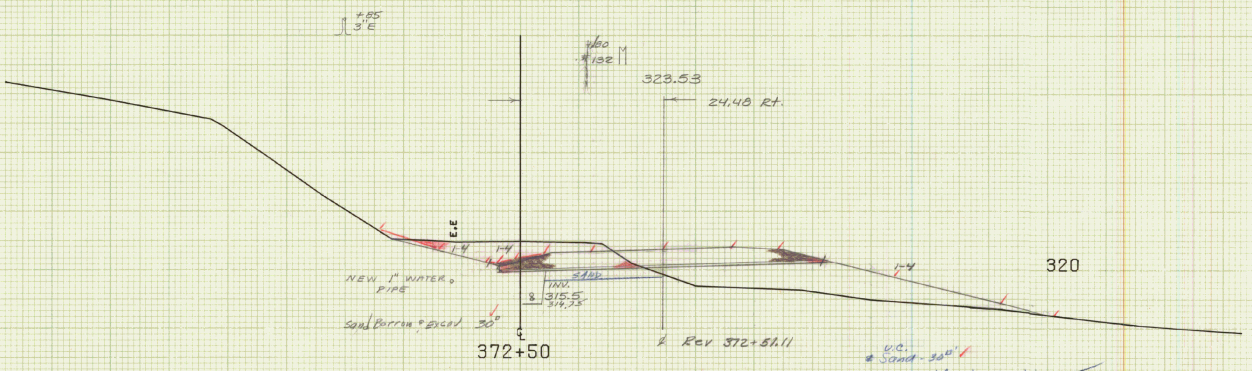
C - 90
Grav. - ~~124~~ 134 Plan.
-18 Pavement
106 Gravel
116

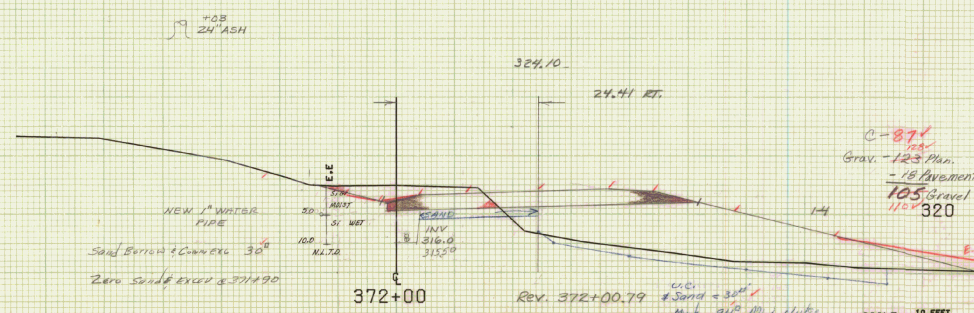
Cuts ckd. by Cyfoke 12/12/85
Grad ckd. 4/6/86 Cyfoke
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/3/85
Muck Splan by M.W.H. 6/11/85
Muck sections plotted by M.W.H. 6/11/85

Muck 60° NJW 6/11/85

SCALE 10 FEET

FROM STA. 371+90		TO STA. 371+75	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 94 OF 104 SHEETS			



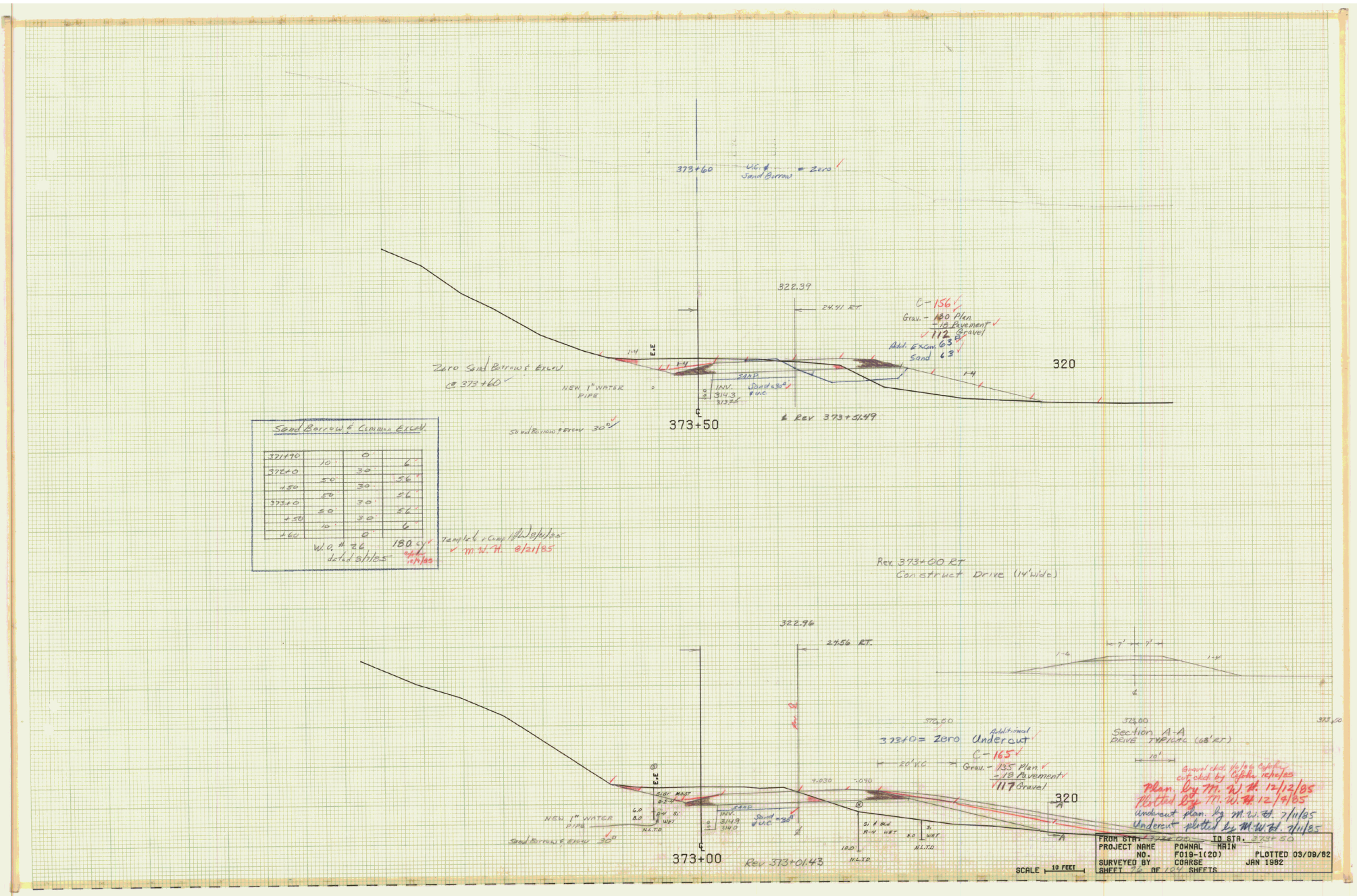


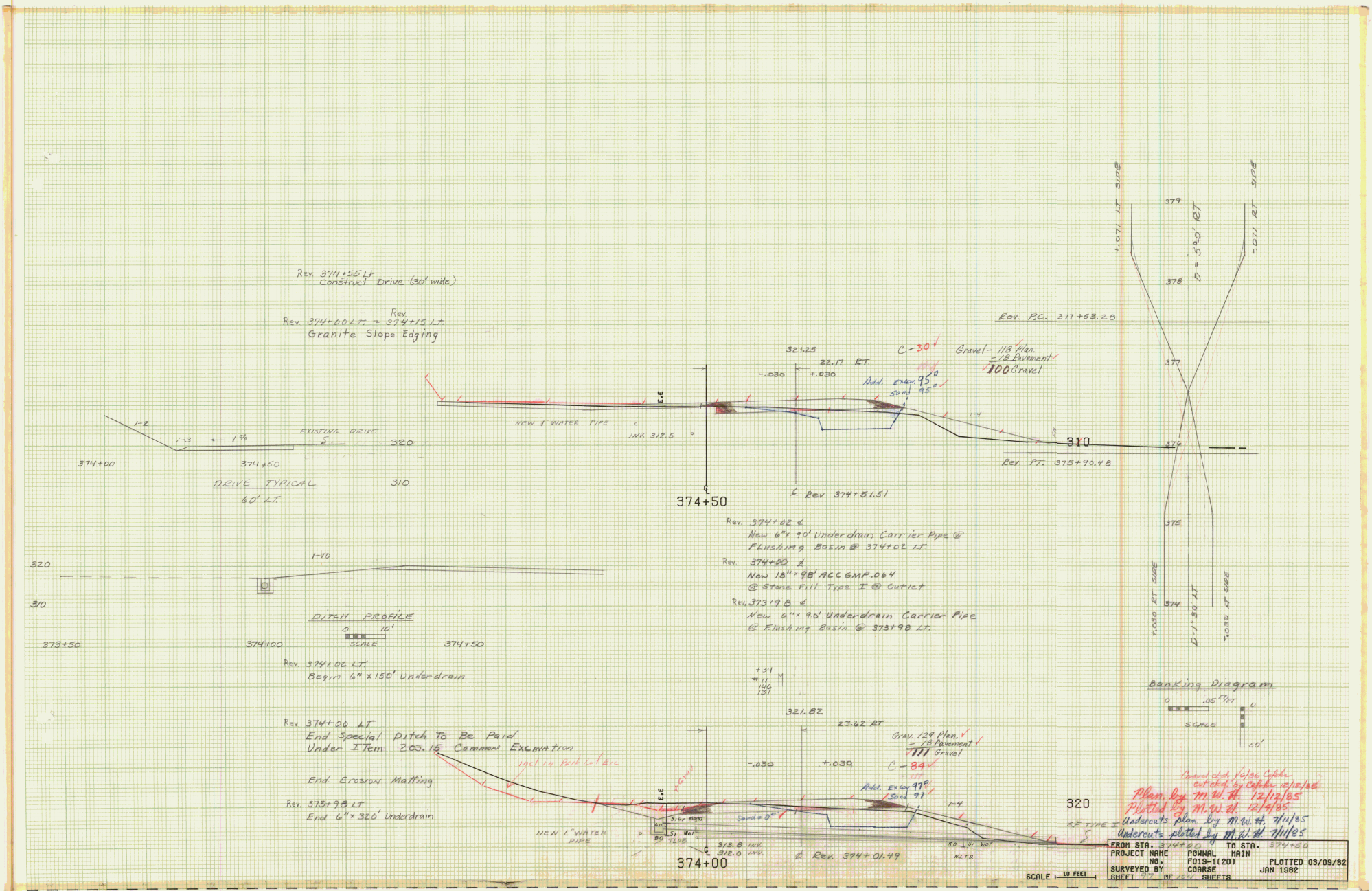
cuts ckd by Cofche 12/12/85
Gravel ckd. 4/8/86 Cofche

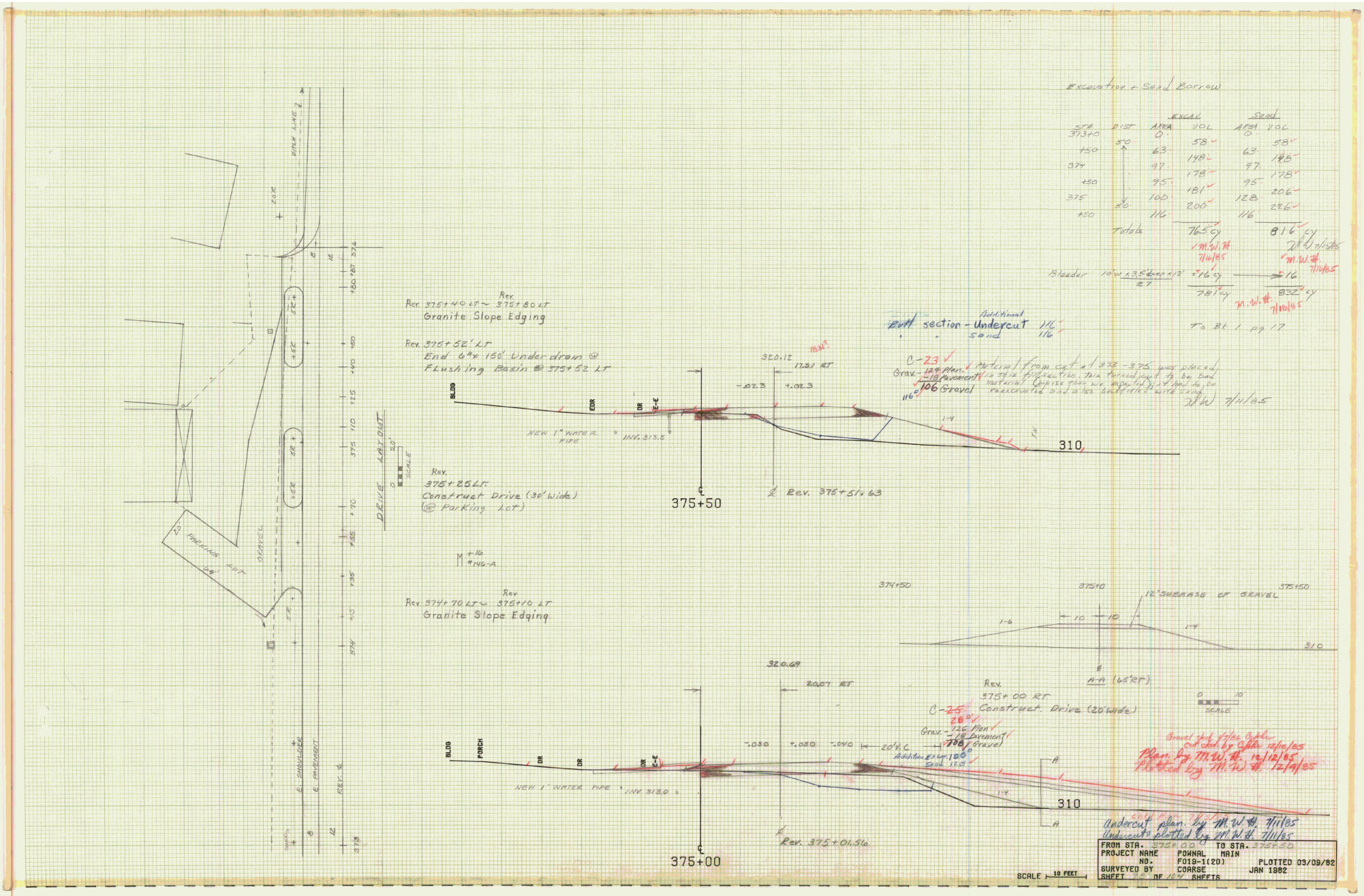
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/4/85
Muck plan by M.W.H. 6/11/85
Muck plotted by M.W.H. 6/11/85

SCALE 10 FEET

FROM STA. 372+00		TO STA. 372+50	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 95 OF 104 SHEETS			

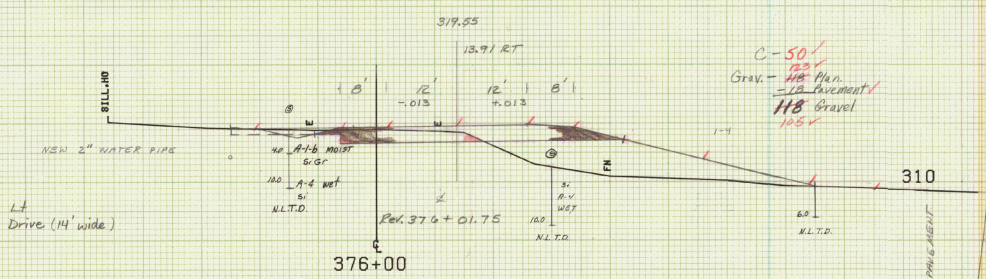

373+60
U.C. & Sand Borrow = Zero
322.39
24.41 RT
C-156
Grav. - 130 Plan.
-18 Pavement
112 Gravel
Add. Excav. 63
Sand 63
320
Zero Sand Borrow & Excav
@ 373+60
NEW 1" WATER PIPE
SAND
INV. 314.3
Sand 30° & U.C.
373+50
℄ Rev 373+51.49
Sand Borrow & Excav 30°
Sand Borrow & Common Excav.
371+90 0
10 6
372+0 30
50 56
+50 30
50 56
373+0 30
50 56
+50 30
10 6
+60 0
W.O. # 26 180 cy
dated 8/7/85
Template & Comp. 8/21/85
M.W.H. 8/21/85
Rev. 373+00 RT
Construct Drive (14' wide)
322.96
24.56 RT.
372.50
373+0 = Zero
Additional Undercut
C-165
Grav. - 135 Plan.
-18 Pavement
117 Gravel
20' V.C.
373.00
Section A-A
DRIVE TYPICAL (63' RT)
10'
373.50
320
NEW 1" WATER PIPE
Sand Borrow & Excav 30°
373+00
Rev 373+01.43
SCALE 10 FEET
Gravel ckd. 11/6/86 Cofohr
cut ckd by Cofohr 12/12/85
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/9/85
Undercut plan. by M.W.H. 7/11/85
Undercut plotted by M.W.H. 7/11/85
FROM STA. 373+00 TO STA. 373+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 96 OF 104 SHEETS


Rev. 374+55 Lt
Construct Drive (30' wide)
Rev. 374+00 Lt. - 374+15 Lt.
Granite Slope Edging
DRIVE TYPICAL
60' Lt
EXISTING DRIVE
1-2
1-3
+ 1%
374+00
374+50
320
310
DITCH PROFILE
SCALE
375+50
Rev. 374+02 Lt
Begin 6" x 180' Underdrain
Rev. 374+00 Lt
End Special Ditch To Be Paid
Under Item 203.15 Common Excavation
End Erosion Matting
Rev. 373+98 Lt
End 6" x 32.0' Underdrain
NEW 1" WATER PIPE
INV. 312.5
321.25
22.11 Rt
-.030
+.030
C = 30
Gravel - 118 Plan.
- 18 Pavement
100 Gravel
Add. Excav. 95
Sand 95
374+50
℄ Rev 374+51.51
Rev. 374+02 ℄
New 6" x 90' Underdrain Carrier Pipe @
Flushing Basin @ 374+02 Lt
Rev. 374+00 ℄
New 18" x 98' ACC GMP.064
@ Stone Fill Type I @ Outlet
Rev. 373+98 ℄
New 6" x 90' Underdrain Carrier Pipe
@ Flushing Basin @ 373+98 Lt.
321.82
23.62 Rt
Gravel 129 Plan.
- 18 Pavement
111 Gravel
C = 84
Add. Excav. 97
Sand 97
Sand = 0
S.W. Mast
S1 Wet
312.8
313.8 INV.
312.0 INV.
374+00
℄ Rev. 374+01.49
SF TYPE I
Rev. P.C. 377+63.28
Rev. P.T. 375+90.48
D = 5°00' Rt
+.071 Lt SIDE
-.071 Rt SIDE
+.030 Rt SIDE
D = 1°30 Lt
-.030 Lt SIDE
Banking Diagram
.05 FT/FT
SCALE
Ground slope to be Cut/Fill as directed by Engineer 12/12/85
Plan by M.W.H. 12/12/85
Plotted by M.W.H. 12/4/85
Undercuts plan by M.W.H. 7/11/85
Undercuts plotted by M.W.H. 7/11/85
FROM STA. 374+00 TO STA. 374+20
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 37 OF 164 SHEETS
SCALE 10 FEET



Excavation + Sand Borrow
STA DIST AREA VOL AREA VOL
Totals 765 cy 816 cy
Bleeder 10'w x 3.5'deep x 12' / 27 = 16 cy → 16
781 cy 832 cy
To Bk 1 pg 17
Rev. 375+40 LT ~ 375+80 LT
Granite Slope Edging
Rev. 375+52' LT
End 6"x 150' Underdrain @
Flushing Basin @ 375+52 LT
Rev. 375+25 LT
Construct Drive (30' wide)
(@ Parking Lot)
Rev. 374+70 LT ~ 375+10 LT
Granite Slope Edging
Rev. 375+00 RT
Construct Drive (20' wide)
Rev. 375+51.63
Rev. 375+01.56
Rev. 375+00 RT
Additional
Full section - Undercut 116
" " sand 116
C-23
Grav. - 124 Plan.
- 18 Pavement
106 Gravel
Material from cut at 373-375 was placed in this fill section. This turned out to be bad material (coarse than we expected); it had to be reexcavated and also backfilled with sand.
DRIVE LAYOUT
PARKING LOT
GRAVEL
DITCH LINE
E. SHOULDER
E. PAVEMENT
REV. ℄
BLDG
EDR
DR
E-E
PORCH
NEW 1" WATER PIPE
INV. 313.5
INV. 313.0
320.12
17.31 RT
320.69
20.07 RT
-.023
+.023
-.030
+.030
-.040
20' V.C.
310
375+50
375+00
374+50
375+0
375+50
12" SUBBASE OF GRAVEL
A-A (65' RT)
Undercut plan. by M.W.H. 7/11/85
Undercut plotted by M.W.H. 7/11/85
FROM STA. 375+00 TO STA. 375+50
PROJECT NAME POWNAL MAIN
NO. F019-1(20) PLOTTED 03/09/82
SURVEYED BY COARSE JAN 1982
SHEET 42 OF 104 SHEETS
SCALE 10 FEET

Rev. 376+00± LT (40')
End New 1"x1250' Steel Water Pipe, Galvanized
Connect Existing House Service To
New 1" Water Main @ Curb Stop



C-50
Grav. - ~~118~~ 123 Plan.
-18 Pavement
~~118~~ 105 Gravel

375+87 Lt
Construct Drive (14' wide)

Rev. P.T. 375+90.48
D = 1°30' LT
Banking .030 FT/FT

+72
#12
130

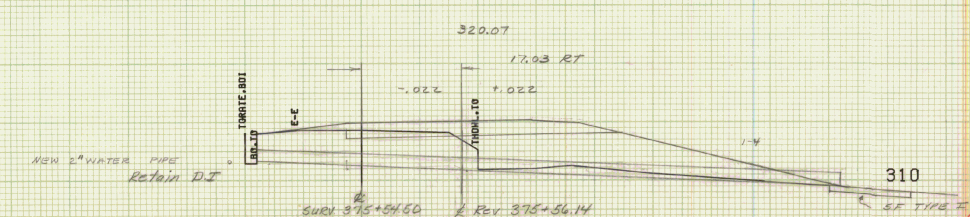
Rev. 376+00
END PROJECT F 019-1(20)S
BEGIN APPROACH

375+50 LT ~ 376+00 LT
Incase New 1" Water Pipe @ Concrete



END APPROACH DETAIL

0 10'
SCALE
0'
50'

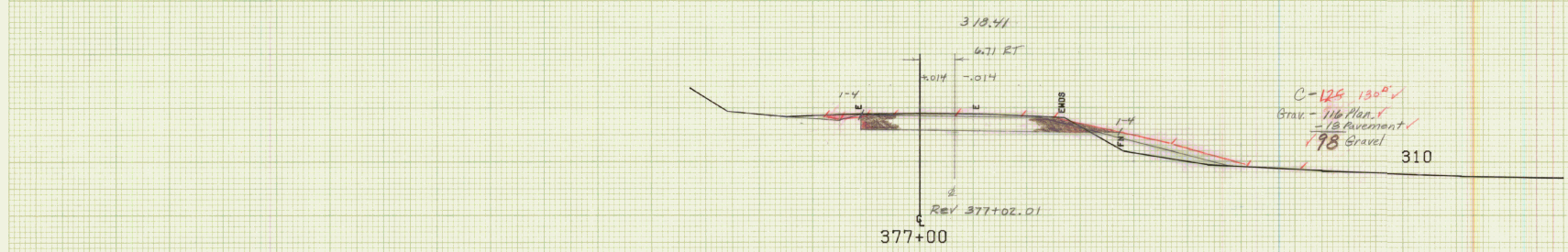


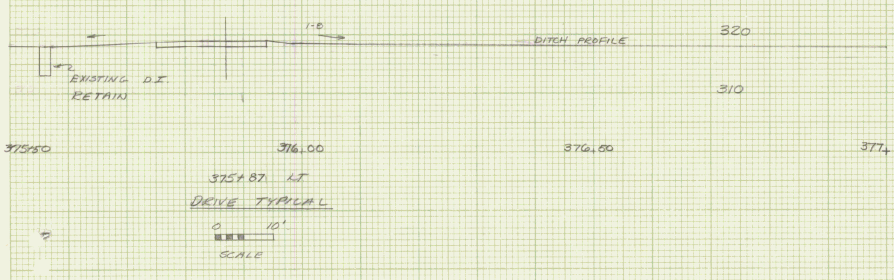
Existing 15" R.C.P. Remove
Retain D.I.
New 24"x100' ACCGMP .064 @ Stone Fill Type I @ Outlet

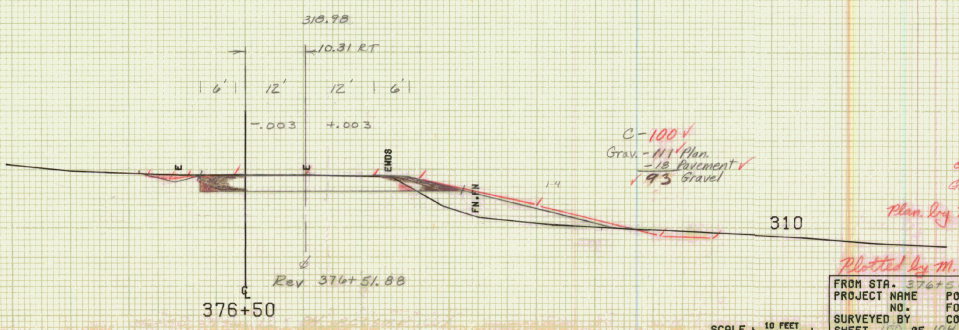
SCALE 10 FEET

cut ckd. by Cofoh 12/12/85
Gravel ckd. 1/7/86 Cofoh
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/4/85

FROM STA. 375+54.5		TO STA. 376+00	
PROJECT NAME	POWNAL	MAIN	
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 99 OF 104 SHEETS			





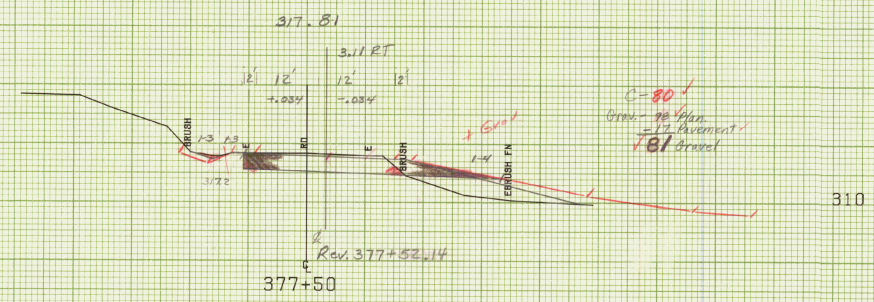


cut ckd by Cofohe 12/12/85
Gravel ckd 1/7/86 Cofohe
Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/9/85

SCALE 10 FEET

FROM STA. 376+50		TO STA. 377+00	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 03/09/82
SURVEYED BY	COARSE		JAN 1982
SHEET 100 OF 104 SHEETS			

REV P.C. 377+53.28
D - 5°0' RT
Banking .071 FT/FT (Match Existing)



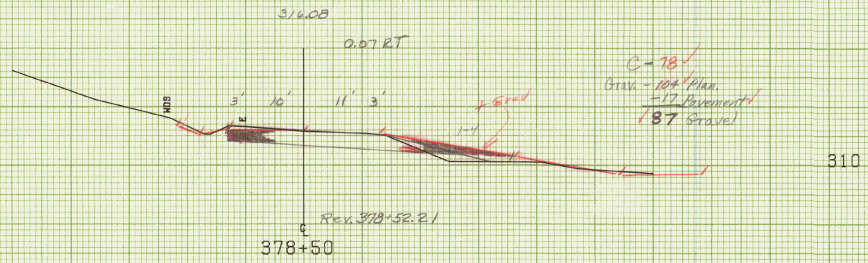


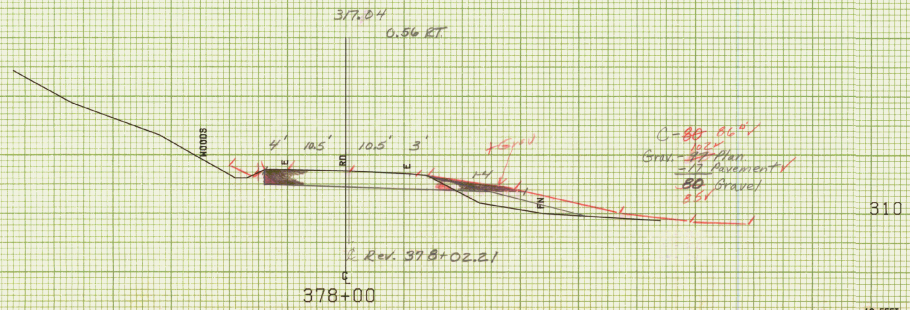
cut ckd. by Cofohr 12/12/85
Gravel ckd. 1/7/86 Cofohr

Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/4/85

FROM STA. 377+50		TO STA.	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 07/15/82
SURVEYED BY	FANTONI		JULY 1982
SHEET 101 OF 104	SHEETS		

SCALE 10 FEET





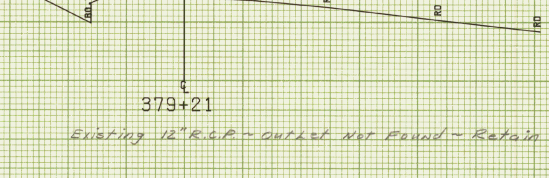
Cut ckd. by Cepha 12/12/85
Gravel ckd. 1/7/86 Cepha

Plan by M.W.H. 12/12/85

Plotted by M.W.H. 12/4/85

FROM STA. 378+00	TO STA. 378+50	
PROJECT NAME	POWNAL MAIN	
NO.	F019-1(20)	PLOTTED 07/15/82
SURVEYED BY	FANTONI	JULY 1982
SHEET 102 OF 104 SHEETS		

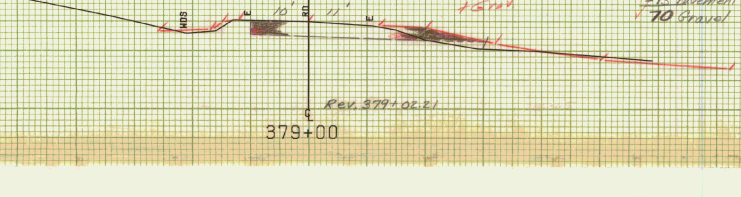
SCALE 10 FEET



Existing 12" R.C.P. ~ Outlet Not Found ~ Retain

Rev. 379+00

End Removal Of Concrete Slabs To Be Paid For
Under Item 203.16 Solid Rock Excavation
END APPROACH



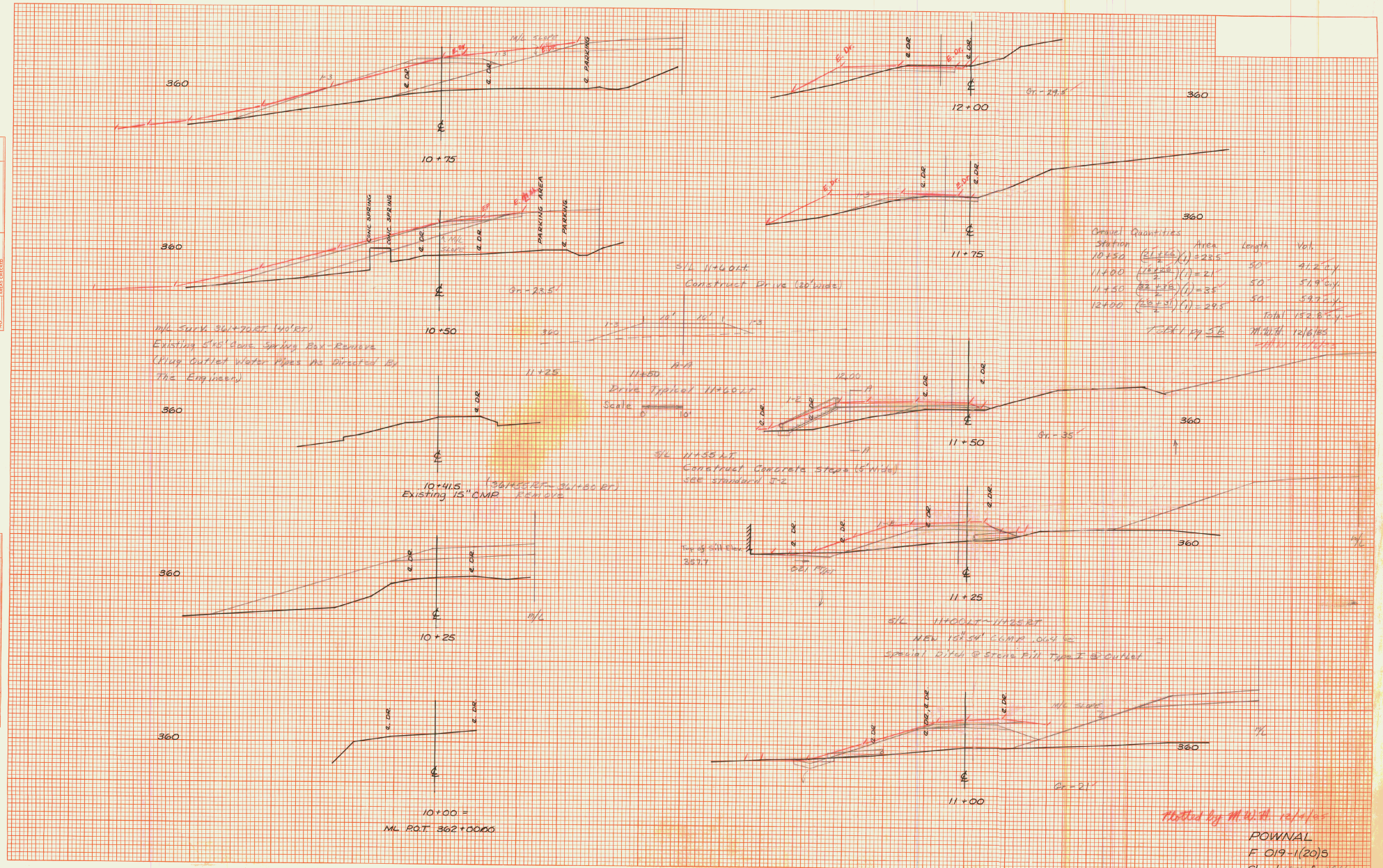
C-63 ✓
Grav. - 85 Plan. ✓
-15 Pavement ✓
70 Gravel

not ckd. by Cofchr 12/12/85
Gravel ckd. 1/7/86 Cofchr

Plan. by M.W.H. 12/12/85
Plotted by M.W.H. 12/4/85

SCALE 10 FEET

FROM STA. 379+00		TO STA. 379+21	
PROJECT NAME	POWNAL MAIN		
NO.	F019-1(20)		PLOTTED 07/15/82
SURVEYED BY	FANTONI		JULY 1982
SHEET 103 OF 104	SHEETS		



Gravel Quantities

Station	Area	Length	Vol.
10+50	$\left(\frac{21+26}{2}\right)(1) = 23.5$	50'	41.2 c.y.
11+00	$\left(\frac{16+26}{2}\right)(1) = 21$	50'	51.9 c.y.
11+50	$\left(\frac{32+38}{2}\right)(1) = 35$	50'	59.7 c.y.
12+00	$\left(\frac{28+31}{2}\right)(1) = 29.5$		
		Total	152.8 c.y.

To Bk 1 pg 56

M.W.H. 12/6/85

M.W.H. 12/6/85

Plotted by M.W.H. 12/4/85

POWNAL

F 019-1(20)S

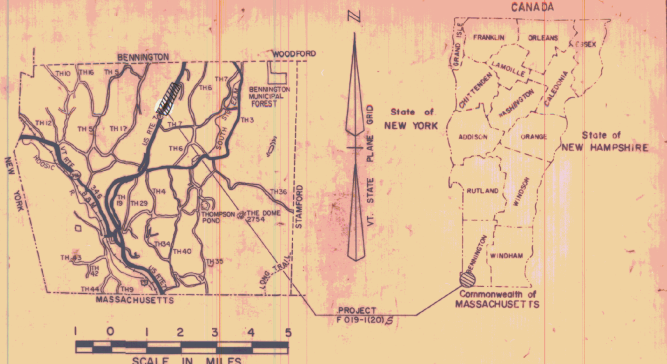
Sheet 154 of 164

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLATE 3 CROSS SECTION G. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

STATE OF VERMONT
AGENCY OF TRANSPORTATION



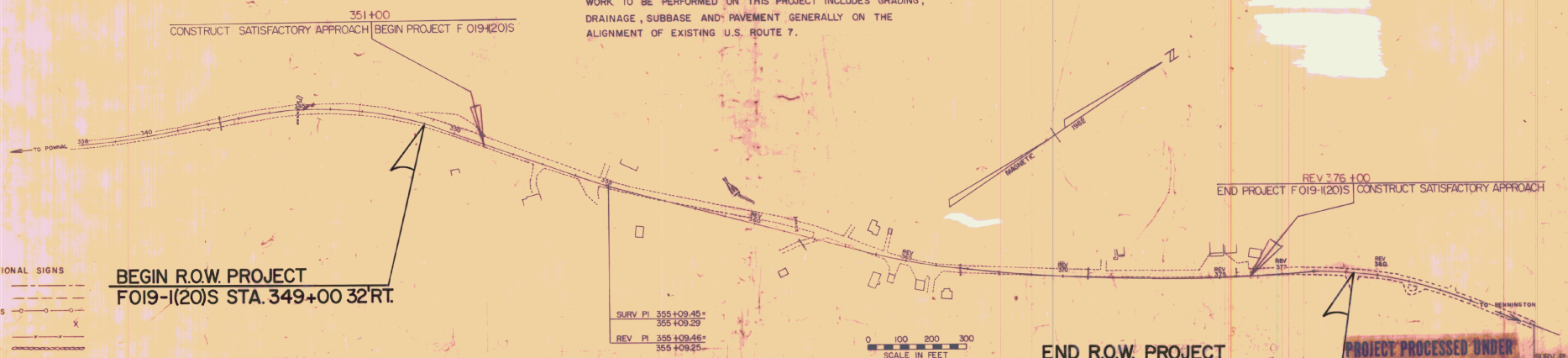
PROPOSED IMPROVEMENT
TOWN OF POWNAL
COUNTY OF BENNINGTON
U.S. ROUTE 7 (F.A.P.)

BEGINNING AT A POINT ON US ROUTE 7 APPROXIMATELY 6.648 MILES NORTHERLY FROM THE VERMONT-MASSACHUSETTS STATE LINE AND PROCEEDING ALONG US ROUTE 7 NORTHERLY FOR APPROXIMATELY 0.473 MILES.

LENGTH OF ROADWAY = 2500 FT = 0.473 MILES
LENGTH OF BRIDGE = 0 FT = 0.000 MILES
LENGTH OF PROJECT = 2500 FT = 0.473 MILES
LENGTH OF R.O.W. PROJECT = 3025 FT = 0.573 MILES

WORK TO BE PERFORMED ON THIS PROJECT INCLUDES GRADING, DRAINAGE, SUBBASE AND PAVEMENT GENERALLY ON THE ALIGNMENT OF EXISTING U.S. ROUTE 7.

R.O.W. PLANS



BEGIN R.O.W. PROJECT
F019-1(20)S STA. 349+00 32' RT.

END R.O.W. PROJECT
F019-1(20)S STA. REV. 379+25 45' RT.

CONVENTIONAL SIGNS

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

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

PROJECT PROCESSED UNDER SECONDARY ROAD PLAN

SURV PI 355+09.45
REV PI 355+09.56
EQUATION +2.19

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Const.. Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED S.J. Page P.E. DATE 8-15-83
DIRECTOR OF ENGINEERING AND CONSTRUCTION
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

105

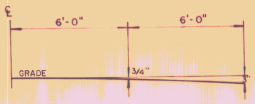
APPROVED _____ DATE 8-17-83
CHIEF, PROPERTY ADMINISTRATION

POWNAL
F019-1(20)S
1 OF 12

SRS 12/17/70

TYPICAL SECTIONS

3" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (1-1/4" WEARING COURSE TYPE III OVER 1-3/4" BINDER COURSE TYPE II
5" PLANT MIXED BASE COURSE, ITEM 303.25 (PLACED IN TWO 2-1/2" COURSES)
SHOULDERS 1-1/4" BITUMINOUS CONCRETE PAVEMENT ITEM 406.25
24" SUBBASE OF GRAVEL, ITEM 301.15
0"-24" SAND BORROW (IN CUT) ITEM 203.31
0"-12" GRANULAR BORROW (IN FILL) ITEM 203.32
} TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER



PARABOLIC DETAILS

GENERAL NOTES

SEED - ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

URBAN %WT	LBS/A	NAME	PUR%	GERM%
37.50	30	CREEPING RED FESCUE (VAR. PENNLAWN)	98	85
31.25	25	KENTUCKY BLUEGRASS (VAR. COMMON)	85	75
31.25	25	PERENIAL RYE GRASS (VAR. PENNFINE)	95	90
100.00	80 LBS/ACRE			

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

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

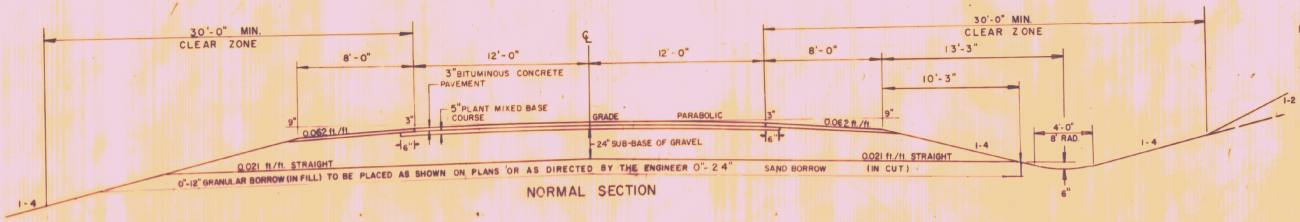
TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

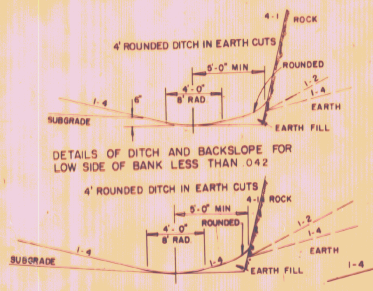
SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN

ALLOWABLE THICKNESS TOLERANCES

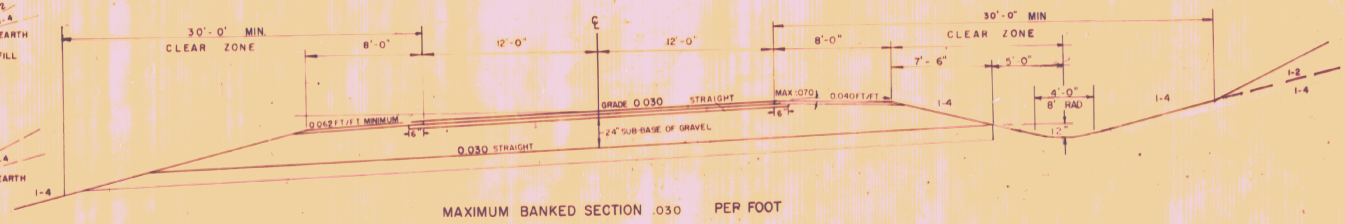
SUB-BASE	± 1"
CONTROLLED MATERIAL	± 1"
PAVEMENT	± 1/4"
BASE COURSE	± 1/2"



NORMAL SECTION



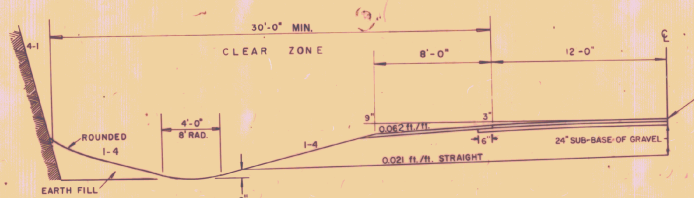
DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF .042 BANK OR MORE



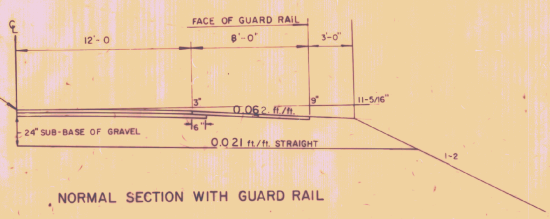
MAXIMUM BANKED SECTION .030 PER FOOT



GRANITE SLOPE EDGING DETAIL
NOT TO SCALE
SEE STANDARD C-1 FOR DETAILS



NORMAL SECTION IN SOLID ROCK EXCAVATION
(SEE STANDARD SHEET A-60 FOR ADDITIONAL DETAILS)



NORMAL SECTION WITH GUARD RAIL

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TOWN OF POWNAL

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

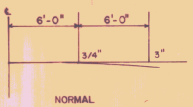
DRAWN BY C.E. Hurley | TRACED BY Lautman

POWNAL F019-1(20)S | 2 OF 12

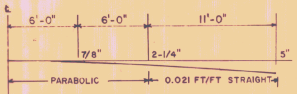
TYPICAL SECTIONS

3" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (1-1/4" TYPE III OVER 1-3/4" TYPE II OR AS DIRECTED BY THE ENGINEER.)
5" PLANT MIXED BASE COURSE, ITEM 303.25 (2 2-1/2" COURSES)
24" SUB-BASE OF GRAVEL, ITEM 301.15
SHOULDERS: 1-1/4" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25
0"-12" GRANULAR BORROW (IN FILL), ITEM 203.32 } AS INDICATED ON THE PLANS OR
0"-24" SAND BORROW (IN CUT), ITEM 203.31 } AS DIRECTED BY THE ENGINEER.

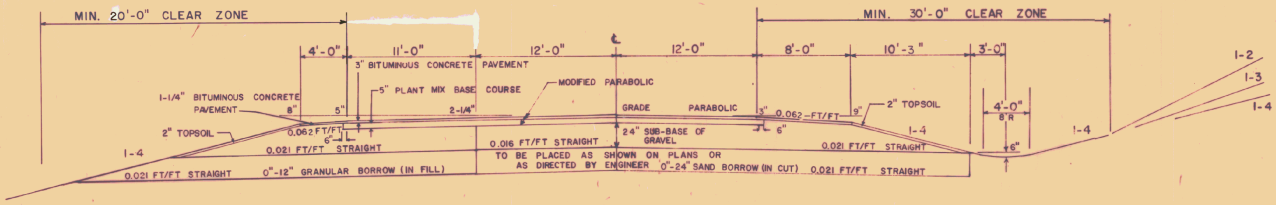
PARABOLIC DETAILS



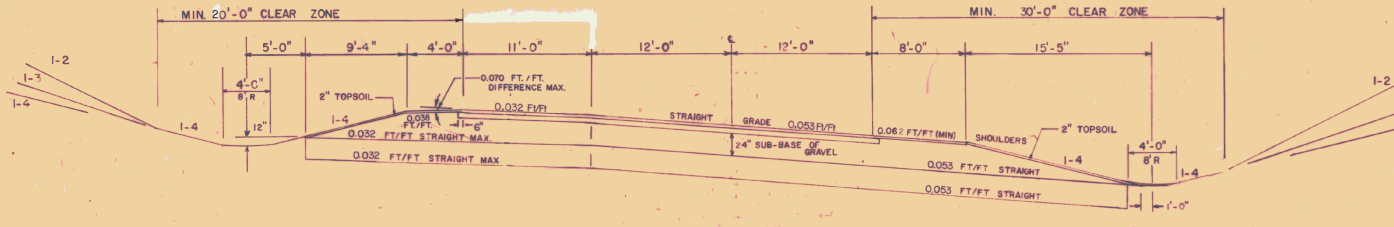
NORMAL



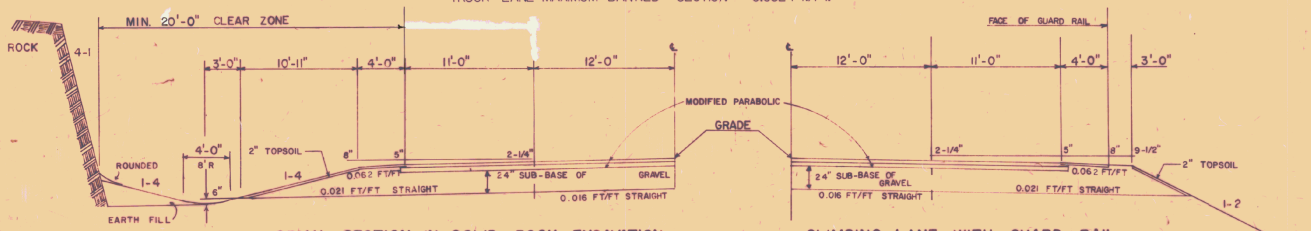
MODIFIED PARABOLIC FOR CLIMBING LANE



NORMAL SECTION



MAXIMUM BANKED SECTION 0.053 FT. PER FOOT
TRUCK LANE MAXIMUM BANKED SECTION 0.032 FT./FT.



NORMAL SECTION IN SOLID ROCK EXCAVATION
(SEE STANDARD SHEET A-60 FOR ADDITIONAL DETAILS)

CLIMBING LANE WITH GUARD RAIL

GENERAL NOTES

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT	LBS/A	NAME	PUR%	GERM%
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
5.00	3	HIGHLAND BENT GRASS	92	85
16.67	10	PERENNIAL RYE GRASS (VAR PENNFIRE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (EMPIRE)	98	85
100	60 LBS./ACRE			

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

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS/ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5 FOR TYPICAL SLOPE ROUNDING

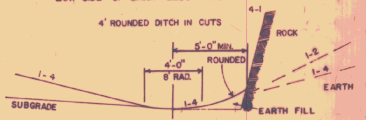
SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN

ALLOWABLE THICKNESS TOLERANCES

SUB-BASE	± 1"
CONTROLLED MATERIAL	± 1"
PAVEMENT	± 1/4"
BASE COURSE	± 1/2"



DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF BANK LESS THAN 0.042 FT/FT



DETAILS OF DITCH AND BACKSLOPE FOR LOW SIDE OF 0.042 FT/FT BANK OR MORE

TOWN OF POWNAL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN BY:	TRACED BY:
POWNAL F019-1(20)S	3 OF 12

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STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1A	HEIL, ETHEL M.	10,11	349+00 RT.	REV. 354+78 RT.	0.21 A±			WD		POWNAL			
			349+00 RT.	REV. 354+78 RT.		34.79 A±		COND.	9-20-84		79	50-56	
			352+88 RT.				DRIVE (T)						16' GRAVEL M.P. 06.68
													DRIVE PERMIT DATE:
			REV. 354+68 RT.				DRIVE (T)						30' GRAVEL M.P. 06.72
													DRIVE PERMIT DATE:
1B			349+00 RT.	REV. 354+63 RT.	1.00 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	1.21 A±	34.79 A±							
2A	DAVIS, GORDIAN P.	10,11	352+84 LT.	REV 354+80 LT.	0.05 A±			WD	6-15-84	POWNAL	87	310	(2050 S.F±)
			352+84 LT.	REV. 354+80 LT.		5.88 A±							
			352+35 LT.	REV. 354+80 LT.			CONST. EASE. (T) (0.06 A±)						(2600 S.F±)
			352+50 LT.	353+60 LT.			SLOPE (P) (0.05 A±)						(2200 S.F±)
			REV. 354+30 LT.	REV. 354+80 LT.			SLOPE (P) (90 S.F±)						
2B			349+85 LT.	REV. 354+80 LT.	0.45 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
			350+35 LT.										16' GRAVEL DRIVE M.P. 06.64
													DRIVE PERMIT DATE:
				TOTAL	0.50 A±	5.88 A±							
3A	JONES, STEPHEN E. & KIMBERLY I.	11	REV. 354+63 RT.	REV. 359+27 RT.	0.26 A±			WD		POWNAL			
			REV. 354+78 RT.	REV. 358+83 RT		0.84 A±		COND.	9-20-84		79	50-56	
			REV. 354+68 RT.				DRIVE (T)						30' GRAVEL M.P. 06.72
													DRIVE PERMIT DATE:
			REV. 355+75 RT.	REV. 358+83 RT			SLOPE (P) (0.28 A±)						
3B			REV. 354+63 RT.	REV. 359+54 LT.	0.35 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.61 A±	0.84 A±							

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	1,4,5, 10,11	C.O.# 6014 PARCELS# 1, 2, 3, 4 CHANGED P/L to C/L OF OLD US 7 PRIOR TO PROJECT PLANS. AFFECTED TAKE AREAS ON 1B FROM 0.46A± TO 1.00A±; 2B 0.76H± to 0.45A±; 3A FROM 0.21A± TO 0.26A±; 3B FROM 0.20A± TO 0.35A±; 4A FROM 0.46A± TO 0.50A±	9-23-83	DEM	LwB
2	10	PARCEL# 2 DAVIS, ADDED spring house AT STA. 351+00 LT. PER C.O.# 6018	10-14-83	DEM	LwB
3	11	PARCEL# 3 JONES, DELETED SPRING AT STA. REV. 356+44 175'± RT. PER C.O.# 6019	10-14-83	DEM	LwB
4	11	PARCEL# 4 BROWN, REVISED TOPO OF DRIVE, WATER LINES, + CAMP BEGINNING AT REV. STA. 356+00 LT ± PER C.O.# 6020	10-14-83	DEM	LwB
5	5,11	PARCEL# 4 BOD BROWN, REVISED SOUTHERLY P/L TO REV. STA. 356+15 LT ± TO RT. FROM REV. STA. 366+88± LT to RT. + the AFFECTED STA'S, + AREAS; DELETED Cul, DIT, + DR. (P) PER C.O.# 6021	10-14-83	DEM	LwB
6	4,11	PARCEL# 7 FOSTER, REVISED TOPO, Added CONC. STEPS, WALK, + WALL + hedge row TO layout + detail sheet PER C.O. # 6022	10-14-83	DEM	LwB
7	7,11	PARCEL# 9 FORCIER, RELOCATE STONE WALL AT REV. STA. 367+10 RT.± REVISED P/L's Added Const. EASE (T) + Cul, DIT, + DR. (P) PER C.O.# 6023	10-14-83	DEM	LwB
8	8	PARCEL# 13 ZACHER, Added ALL R.T.+L. IN PARKING AREA AT STA. REV. 373+60 RT. ~ 375+30 RT PER C.O.# 6024	10-14-83	DEM	LwB
9	12	PARCEL# 13+15 ZACHER, ADDED FENCE + PLANTER TOPO PER C.O.# 6025	10-14-83	DEM	LwB
10	8,9,12	PARCEL# 13A+15A ZACHER, REVISED TAKE LINE, DELETED TAKE AREA PARCEL 13, REVISED TAKE AREA + REM. PARCEL 15 PER C.O.# 6026	10-14-83	DEM	LwB
11	9,11	PARCEL# 16 BAKER, DELETED PARCEL PER C.O.# 6027	10-14-83	DEM	LwB
12	11	PARCEL# 7 Foster, ADDED Const Note to REPLACE Conc. STEPS AT STA. REV. 363+55 LT. PER C.O.# 6040	10-26-83	DEM	LwB

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONS'T. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED L. W. Blair DATE 9/16/83
CHIEF OF PLANS & TITLES

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PROJECT POWNAL
NO. F019-1(20)S
SHEET 4 OF 12

BRUNING 44-131-60952

ROW

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
4A	BROWN, ROBERT F. JR. & MARY L.	11,12	REV. 354 + 80 LT.	REV. 361 + 70 LT.	0.35 A±			WD	8-25-84	POWNAL	79	1	
	GUETTI, JENE F.		REV. 354 + 80 LT.	REV. 361 + 70 LT.		19.61 A±							
			REV. 354 + 92 LT.				DRIVE (T)						16' GRAVEL M.P. 06.72 DRIVE PERMIT DATE:
			REV. 355 + 60 LT.	REV. 356 + 88 LT.			SLOPE (P) (0.03 A±)						(1300 S.F.±)
			REV. 356 + 50 LT.	REV. 361 + 71 LT.			CONST. EASE. (T) (0.10 A±)						
			REV. 357 + 75 LT.	REV. 358 + 35 LT.			SLOPE (T) (360 S.F.±)						
			REV. 359 + 14 LT.	REV. 359 + 27 LT.									CONCRETE DAM (EXCEPT & RESERVE)
			REV. 360 + 60 LT.	REV. 361 + 45 LT.			SLOPE (T) (0.01 A±)						(420 S.F.±)
			REV. 359 + 25 LT.±	REV. 361 + 33 LT.±									WATERLINE
			REV. 359 + 40 LT.±	REV. 361 + 69 LT.±									WATERLINE
4B			REV. 368 + 18 RT.	REV. 370 + 31 RT.	0.17 A±								
			REV. 368 + 22 RT.	REV. 370 + 31 RT.		11.83 A±							
			REV. 368 + 22 RT.	REV. 370 + 35 RT.			SLOPE (T) (0.11 A±)						
			REV. 368 + 22 RT.	REV. 370 + 37 RT.			CONST. EASE. (T) (0.05 A±)						(2100 S.F.±)
			REV. 369 + 00 RT.				DRIVE (T)						14' GRAVEL M.P. 06.99 DRIVE PERMIT DATE:
4C			REV. 354 + 80 LT.	REV. 361 + 70 LT.	0.50 A ±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
4D			REV. 368 + 15 RT.	REV. 370 + 27 RT.	0.12 A ±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
4E			REV. 365 + 91 RT.				ALL R. T. & I.						R.O.W. WITH IN U.S. RTE. 7 HWY. EASE.
				TOTAL	1.14 A ±	31.44 A ±							
5A	GARDNER, MILTON A. JR. & BETTY L.	11	REV. 358 + 83 RT.	REV. 362 + 01 LT.	0.27 A±			WD		POWNAL			
			REV. 358 + 83 RT.	REV. 361 + 36 RT.		1.33 A±		COND.	9-20-84		79	50-56	
			REV. 358 + 00 RT.	REV. 360 + 00 RT.			SLOPE (P) (0.14 A±)						(1700 S.F.±)
			REV. 357 + 94 RT.	REV. 361 + 10 RT.			CONST. EASE. (T) (0.04 A±)						(1050 S.F.±)
			REV. 360 + 20 RT.	REV. 361 + 36 RT.			SLOPE (T) (0.02 A±)						16' GRAVEL M.P. 06.84 (IN COMMON WITH PARCEL 6)
			REV. 361 + 48 RT.				DRIVE (T)						DRIVE PERMIT DATE:
			REV. 361 + 45 RT.±	REV. 361 + 60 RT.±			ALL R. T. & I.						WATERLINE
			REV. 360 + 91 RT.	REV. 361 + 04 RT.			CULVERT (T)						
5B			REV. 359 + 27 RT.	REV. 362 + 24 LT.	0.16 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
5C			REV. 354 + 68 RT.				ALL R. T. & I.						R.O.W. WITH IN U.S. RTE. 7 HWY. EASE.
				TOTAL	0.43 A ±	1.33 A ±							

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
13	6	PARCEL #6 HATTAT, mob.; Revised Remainder From 3.34 A± To 2.84 A± PER C.O.# 6078	11-17-83	DEM	LWB
14	5, 11	PARCEL #4 Brown; Revised Septic System + Deleted Leach Field at Sta. 355+60 ~ 355+90 LT From Detail Sheet Per C.O.# 6082	11-17-83	DEM	LWB
15	8, 12	Parcel #12, LEONARD, Added Drive & Rt. At Sta. 373+00 Rt. Per Revised Design & C.O.# 6050	11-21-83	B.A.M.	LWB
16	9	Parcel #3 JONES, Changed Rem. From 0.69 Ac To 0.84 Ac Per C.O.# 6095	11-30-83	B.A.M.	LWB
17	11	PARCEL #6 HATTAT, REVISED DRIVE AT REV STA 361+48 RT. PER C.O.# 6086	12-12-83	DEM	RNB
18	4, 10, 11	PARCEL #2 DAVIS, Deleted Mary B. From Title. Per C.O.# 6137	2-3-84	DEM	RNB
19	7, 11	PARCEL #10 CHELO + LORENTI, Revised Title From CHELO, JAMES & ROSE; LORENTI, PATRICK & ANNE TO CHELO, JAMES & ROSE; LORENTI, ANNE; PATRICK LORENTI Est.; ANNE LORENTI EXECUTRIX PER C.O.# 6138	2-3-84	DEM	RNB
20	9, 11	Parcel # 3A JONES, Revised Slope & Sta. Rev. 355+23 Rt. ~ Rev. 358+83 Rt. 0.35 Ac To Rev. 355+75 Rt. ~ Rev. 358+83 Rt. 0.28 Ac Deleted Const. Ease. (T) Rev. 357+00 Rt. ~ Rev. 358+00 Rt. Per Revised Design & C.O.# 6152	2-21-84	B.A.M.	LWB
21	12	Parcel #13 Zachora, Added Parking At Sta. 379+00 LT. Per C.O.# 6241	7-31-84	DEM	LWB
22	10	Parcel # 1 KEIL, Added SAVE To 24" P Rt Sta. 353+00 Rt. Per Revised Design & C.O.# 6264	9-12-84	B.A.M.	LWB
23	6, 11	Parcel #6 HATTAT, Added Conc. Steps & Rt. To Instate (T) At Sta. 360+76 Rt. ~ 361+36 Rt. Per Revised Design & C.O.# 6210 Plans Given To Design 12-7-84 mm	9-12-84	B.A.M.	LWB

MADE BY: D.E.M. DATE 7-28-83

CHECKED BY: J.D.P. DATE 8-1-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
(W) — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE — CONS'T. EASEMENT
SR — SLOPE RIGHTS
PL — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED L. W. Blix CHIEF OF PLANS & TITLES DATE 9/14/83

109

PROJECT POWNAL
NO. F 019-1(20)S
SHEET 5 OF 12

ROW

BRUNING 44-131-60992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
6	HATTAT, WILTON R. & HELEN M.	11	REV. 361 + 36 RT.	REV. 362 + 24 RT.	0.04 A±			WD	9-28-84	POWNAL	79	114	(1800 S.F.±)
			REV. 361 + 36 RT.	REV. 362 + 24 RT.		2.84 A±							
			REV. 361 + 48 RT.				DRIVE (T)						16'GRAVEL M.P.0684 (IN COMMON WITH PARCEL 5) DRIVE PERMIT DATE: (3400 S.F.±)
			REV. 361 + 10 RT.	REV. 362 + 38 RT.			SLOPE (T) (0.08 A±)						
			REV. 361 + 85 RT.	REV. 362 + 00 RT.			CULVERT (P)						
			REV. 362 + 00 RT.				DITCH & DRAINAGE (P)						
			REV. 362 + 00 RT.	REV. 362 + 18 RT.			CULVERT (P)						
			REV. 359 + 25 LT.±	REV. 361 + 67 RT.±			ALL R. T. & I.						WATERLINE
			REV. 361 + 67 RT.				ALL R. T. & I.						SPRING BOX
			REV. 361 + 48 RT.±	REV. 361 + 67 RT.±									WATERLINE
			REV. 361 + 00 RT.	REV. 362 + 00 RT.			DITCH (P) (0.01 A±)						(560 S.F.±)
			REV. 361 + 04 RT.	REV. 361 + 40 RT.			CULVERT (T)						
			REV. 360+ 96 RT.	REV. 361 + 36 RT.			INSTALL (T)						CONCRETE STEPS
7A	FOSTER, JOHN C. & RUTH E.	11	REV. 362 + 67 LT.	REV. 366 + 18 LT.	0.16 A±			WD	8-14-8	POWNAL	78	524	
			REV. 361 + 70 LT.	REV. 368 + 15 LT.		1.84 A±							
			REV. 361 + 70 LT.	REV. 362 + 85 LT.			SLOPE (T) (0.03 A±)						(1320 S.F.±)
			REV. 361 + 70 LT.	REV. 362 + 90 LT.			CONST. EASE. (T) (0.03 A±)						(1100 S.F.±)
			REV. 362 + 94 LT.				DRIVE (T)						14' PAVED M.P. 06.87 DRIVE PERMIT DATE:
			REV. 363 + 83 LT.	REV. 365 + 00 LT.			SLOPE (T) (0.04 A±)						(1870 S.F.±)
			REV. 364 + 24 LT.				DRIVE (T)						12' PAVED M.P. 06.90 DRIVE PERMIT DATE:
			REV. 365 + 00 LT.	REV. 366 + 15 LT.			SLOPE (P) (0.07 A±)						(2910 S.F.±)
			REV. 365 + 00 LT.	REV. 366 + 11 LT.			CONST. EASE. (T) (0.02 A±)						(900 S.F.±)
			REV. 359 + 25 LT.±	REV. 363 + 25 LT.±			ALL R. T. & I.						WATERLINE
			REV. 363 + 55 LT.	REV. 363 + 60 LT.									CONC. STEPS & CONC. WALK
			REV. 364 + 20 LT.										CONC. WALL
			REV. 363 + 08 LT.	REV. 364 + 15 LT.									HEDGE ROW
			REV. 364 + 10 LT.	REV. 364 + 20 LT.									CONC. STEPS
7B			REV. 361 + 67 LT.	REV. 366 + 23 LT.	0.26 A±		ALL R. T & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.42 A±	1.84 A±							
8A	HATTAT, WILLIAM H. & FLORENCE I.	11	REV. 361 + 96 RT.	REV. 365 + 06 RT.	0.18 A±			WD	7-9-84	POWNAL	78	399	
			REV. 362 + 24 RT.	REV. 365 + 06 RT.		1.50 A±							
			REV. 362 + 24 RT.	REV. 363 + 50 RT.			SLOPE (T) (0.04 A±)						(1710 S.F.±)
			REV. 364 + 62 RT.				DRIVE (T)						20' GRAVEL M.P. 06.91 DRIVE PERMIT DATE:
			REV. 358 + 25 LT.±	REV. 361 + 67 RT.±			ALL R. T. & I.						WATERLINE
			REV. 361 + 67 RT.±	REV. 363 + 00 RT.±									WATERLINE
			REV. 362 + 60 RT.	REV. 363 + 30 RT.									GARDEN
			REV. 361 + 67 RT.				ALL R. T & I.						SPRING BOX
	PARCEL 8 CONTINUED ON FOLLOWING SHEET												

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(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

LEGEND

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED [signature] DATE 8/14/83
CHIEF OF PLANS & TITLES

110

PROJECT POWNAL
NO. F019-1(20)S
SHEET 6 OF 12

ROW

BRUNING 44-131 40992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
	PARCEL 8 CONTINUED FROM PREVIOUS SHEET												
8B	HATTAT, WILLIAM H. & FLORENCE I.	11	REV. 362+01 LT.	REV 365+05 RT.	0.17 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.35 A±	1.50 A±							
9A	FORCIER, JOHN E. & THERESA C.	11	REV. 365+05 RT.	REV. 368+22 RT.	0.14 A±			WD	7-12-84	POWNAL	78	415	
			REV. 365+06 RT.	REV. 368+22 RT		1.19 A±							
			REV. 365+55 RT				DRIVE (T)						28' GRAVEL M.P. 06.92
													DRIVE PERMIT DATE:
			REV. 365+91 RT.				DRIVE (T)						16' GRAVEL M.P. 06.93
													DRIVE PERMIT DATE:
			REV. 366+75 RT.	REV. 368+25 RT			SLOPE (T) (0.05 A±)						(1960 S.F.±)
			REV. 359+25 LT.±	REV. 366+85 RT±			ALL R. T & I.						WATERLINE
			REV. 366+90 RT.	REV. 368+30 RT.			CONST. EASE. (T) (0.03 A±)						(1300 S.F.±)
			REV. 367+05 RT.	REV. 367+15 RT.									STONE WALL
			REV. 367+00 RT.	REV. 367+06 RT			CUL., DIT., & DR. (P)						
9B			REV. 365+02 RT.	REV. 368+18 RT	0.18 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
			REV. 366+55 RT.										SIGNS
				TOTAL	0.32 A±	1.19 A±							
10A	CARLO, JAMES & ROSE	11,12	REV. 366+15 LT.	REV. 369+64 LT.	0.10 A±			WD		POWNAL			
	LORENTI, ANNE		REV. 366+15 LT.	REV. 369+64 LT.		2.40 A±		COND.	9-20-84		79	50-56	
	LORENTI, PATRICK· ESTATE OF		REV. 366+10 LT.	REV. 369+60 LT.			CONST. EASE. (T) (0.08 A±)						(3550 S.F.±)
	LORENTI, ANNE· EXECUTRIX		REV. 366+12 LT.	REV. 368+37 LT.			SLOPE (T) (0.07 A±)						(3250 S.F.±)
			REV. 367+07 LT.				DRIVE (T)						14' GRAVEL M.P. 06.95
													DRIVE PERMIT DATE:
			REV. 368+55 LT	REV. 369+64 LT.			SLOPE (P) (0.03 A±)						(1150 S.F.±)
10B			REV. 366+19 LT.	REV. 369+72 LT.	0.20 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
			REV. 366+20 LT.±	REV. 369+70 LT±			ALL R. T. & I.						WATERLINE
				TOTAL	0.30 A±	2.40 A±							
11	GAGNON, RICHARD R. & GRACE E.	12	REV. 369+64 LT.	REV. 373+15 LT.	0.20 A±		ALL R. T & I.	WD	8-8-84	POWNAL	78	494	HWY. EASE. U.S. RTE. 7
			REV. 369+58 LT.	REV. 370+32 LT.			CONST. EASE. (T) (0.01 A±)						(500 S.F.±)
			REV. 369+60 LT.	REV. 369+92 LT.			SLOPE (P) (105 S.F.±)						
			REV. 371+27 LT.				DRIVE (T)						14' PAVED M.P. 07.03
													DRIVE PERMIT DATE:
			REV. 372+55 LT.	REV. 373+07 LT.			CONST. EASE. (T) (400 S.F.±)						
			REV. 350+25 LT.±	REV. 373+10 LT±			ALL R. T. & I.						WATERLINE

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TOP OF CUT
TOE OF SLOPE

APPROVED L. W. Blair CHIEF OF PLANS & TITLES DATE 9/14/83

///

PROJECT POWNAL
NO. F019-1(20)S
SHEET 7 OF 12

ROW

BRUNING 44-131-40902

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

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PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
12A	LEONARD, TRUMAN F. & LOIS A.	12	REV. 370+27 RT. REV. 370+31 RT. REV. 370+31 RT. REV. 370+34 RT. REV. 370+74 RT. REV. 373+98 RT. REV. 373+00 RT.	REV. 374+24 RT. REV. 374+24 RT. REV. 374+24 RT. REV. 374+24 RT.	0.37 A±	6.30 A±	SLOPE (T) (0.23 A±) CONST. EASE. (T) (0.09 A±) CUL. DIT. & DR. (P) CUL. DIT. & DR. (P) DRIVE (T)	WD	8-8-84	POWNAL	78	499	(4040 S.F.±) 14' GRAVEL M.P. 07.06 DRIVE PERMIT DATE
12B			REV. 370+24 LT.	REV. 374+24 RT.	0.23 A±		ALL R.T.& I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.60 A±	6.30 A±							
13A	DELETED												
13B	ZAGHER, RICHARD M. (LESSOR) ROCK MAPLE GIFT SHOP (LESSEE)	12	REV. 373+07 LT. REV. 373+05 LT. REV. 373+78 LT. REV. 374+55 LT. REV. 375+25 LT. REV. 359+25 LT.± REV. 373+60 RT	REV. 375+72 LT. REV. 374+30 LT. REV. 374+12 LT. REV. 375+72 LT± REV. 375+30 RT.	0.16 A±		ALL R.T. & I. CONST. EASE. (T) (0.02 A±) SLOPE (T) (40 SF±) DRIVE (T) DRIVE (T) ALL R.T. & I. ALL R.T. & I.	OPT.	7-12-84	POWNAL	79	233	HWY. EASE. U.S. RTE. 7 (1000 S.F.±) 30' GRAVEL M.P. 07.09 DRIVE PERMIT DATE: 30' GRAVEL M.P. 07.11 DRIVE PERMIT DATE: WATERLINE PARKING AREA
				TOTAL	0.16 A±	16.69 A±							
14A	BESHARA, JOANNE M.	12	REV. 374+24 RT. REV. 374+24 RT. REV. 374+24 RT. REV. 374+24 RT. REV. 375+00 RT. REV. 375+55 RT.	REV. 379+25 RT. REV. 379+25 RT. REV. 377+50 RT. REV. 378+30 RT.	0.31 A±	5.87 A±	SLOPE (T) (0.12 A±) CONST. EASE. (T) (0.08 A±) DRIVE (T) CUL. DIT. & DR. (P)	WD	8-14-84	POWNAL	78	519	(3700 S.F.±) 20' GRAVEL M.P. 07.10 DRIVE PERMIT DATE:
14B			REV. 374+24 RT.	REV. 379+18 RT.	0.28 A±		ALL R.T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.59 A±	5.87 A±							

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SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED L. W. Blin CHIEF OF PLANS & TITLES DATE 8/14/83

PROJECT POWNAL
NO. F019-1(20)S
SHEET 8 OF 12

112

ROW

BRUNING 44-131-40992

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

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15A	ZACHER, LINDA M. & RICHARD M.	12	REV. 376+83 LT. REV. 375+72 LT. REV. 375+87 LT. REV. 359+25 LT.±	REV. 379+18 LT. REV. 379+15 LT. REV. 375+90 LT±	0.03 A±	1.97A±	DRIVE (T) ALL R. T. & I.	OPT.	7-12-84	POWNAL	79	237	(1200 S.F.±) 16' GRAVEL MP 07.12 DRIVE PERMIT DATE: WATERLINE
15B			REV. 375+72 LT.	REV. 379+25 RT.	0.20 A±		ALL R. T. & I.						HWY. EASE. U.S. RTE. 7
				TOTAL	0.23 A±	1.97 A±							
16	DELETED												FORMERLY BAKER, REGINALD
17	CENTRAL VERMONT PUBLIC SERVICE CORP.												UTILITY
18	NEW ENGLAND TELEPHONE & TELEGRAPH												UTILITY

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CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

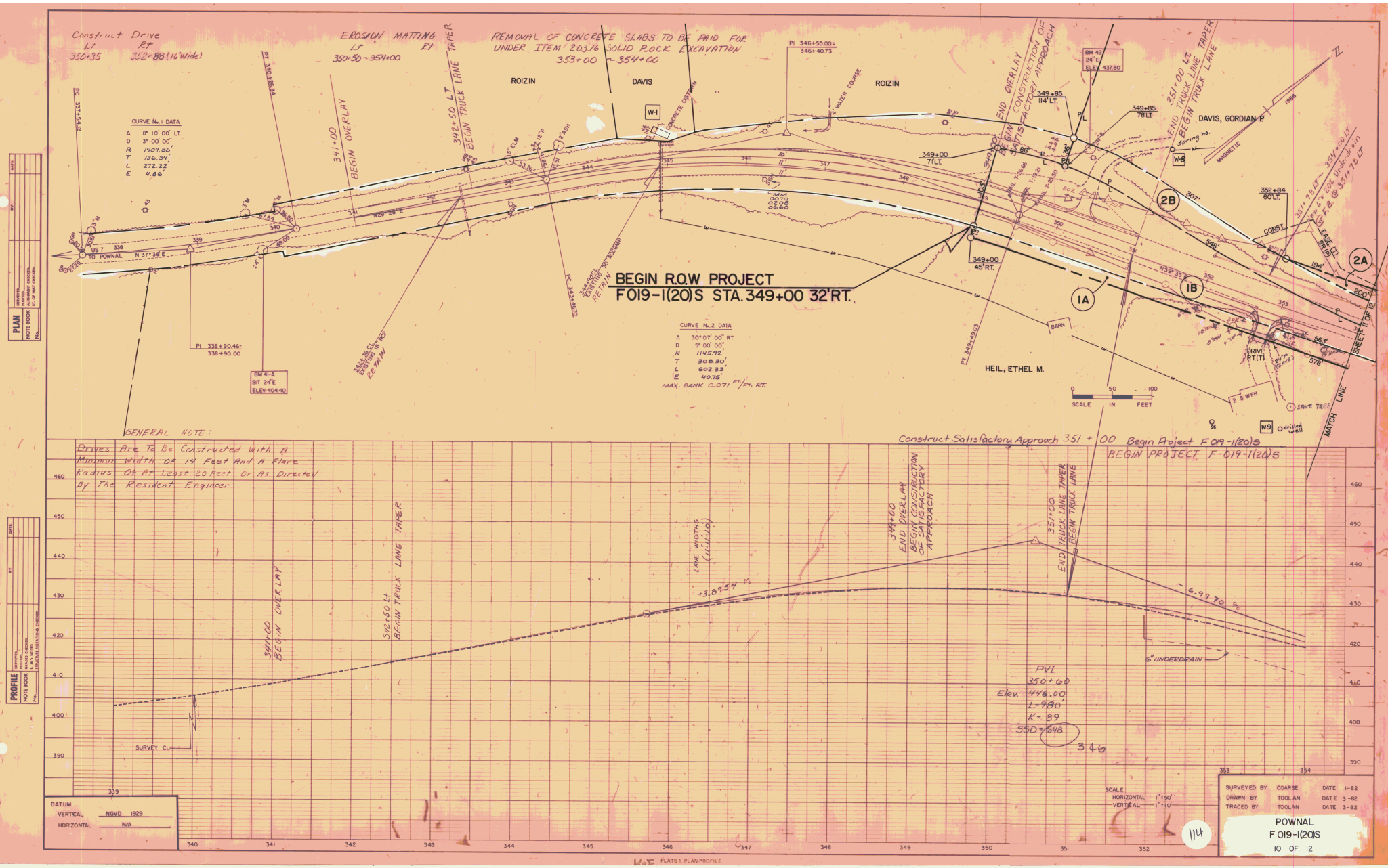
APPROVED [signature] DATE 8/14/83
CHIEF OF PLANS & TITLES

113

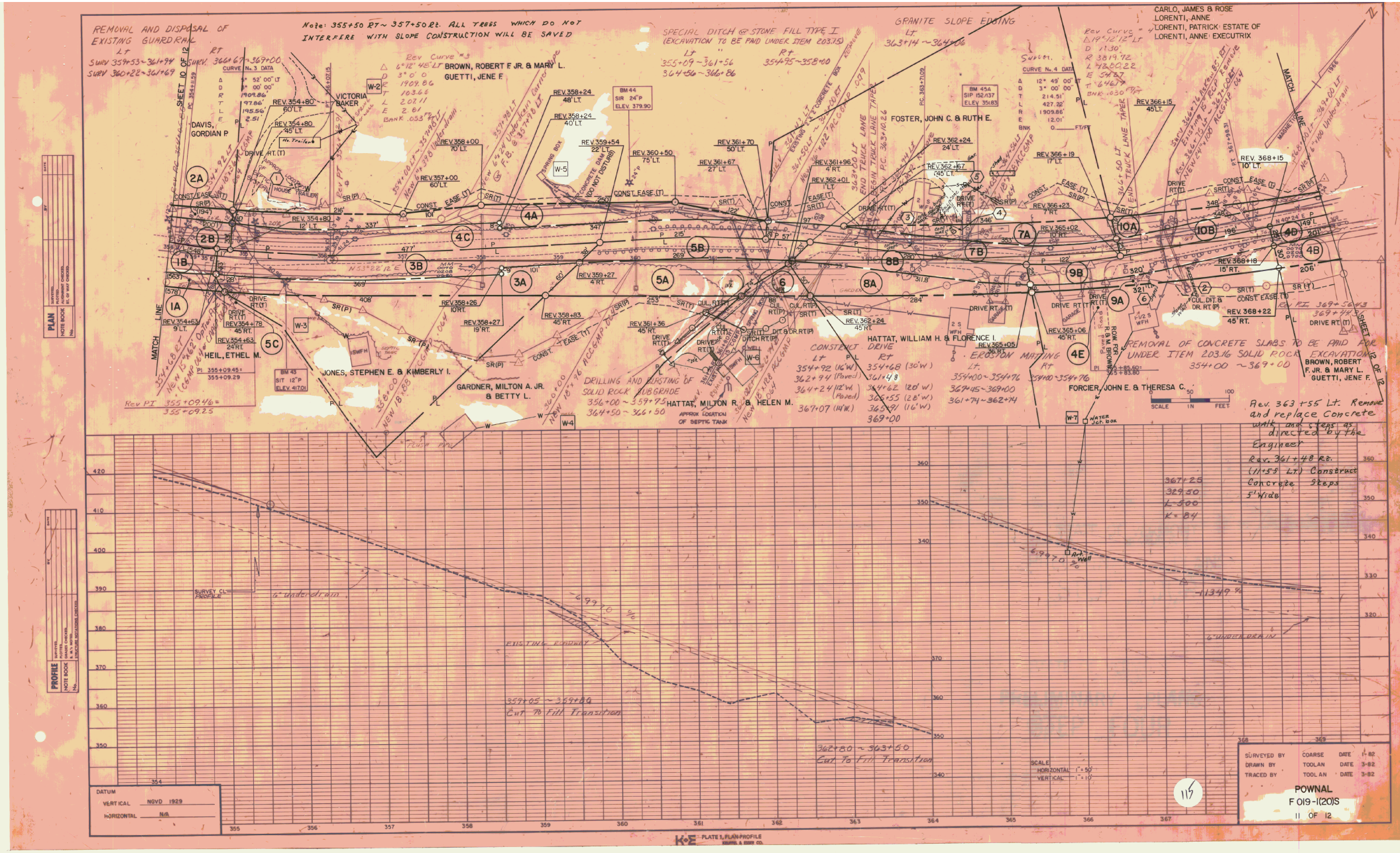
PROJECT POWNAL
NO. F019-1(20)S
SHEET 9 OF 12

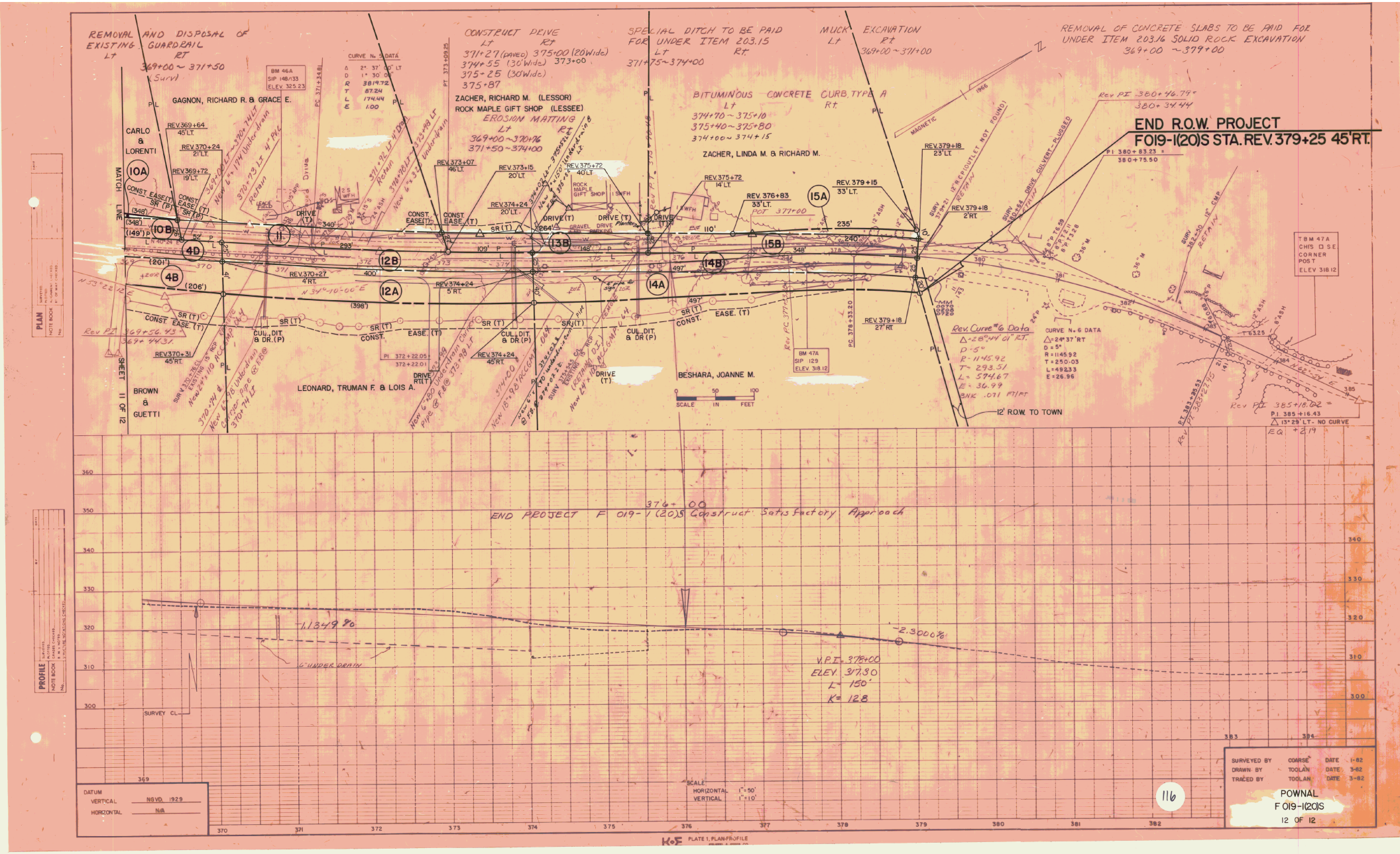
ROW

BRUNING 44-131 40992



Construct Drive
Lt 350+35
Rt 352+88 (16' Wide)
EROSION MATTING
Lt 350+50 - 354+00
Rt
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION 353+00 - 354+00
ROIZIN
DAVIS
ROIZIN
DAVIS, GORDIAN P.
HEIL, ETHEL M.
CURVE No. 1 DATA
Δ 8° 10' 00" LT.
D 3° 00' 00"
R 1909.86'
T 136.34'
L 272.22'
E 4.86'
CURVE No. 2 DATA
Δ 30° 07' 00" RT
D 5° 00' 00"
R 1145.92'
T 308.30'
L 602.33'
E 40.75'
MAX. BANK 0.071 FT./FT. RT.
341+00 BEGIN OVERLAY
342+50 LT BEGIN TRUCK LANE TAPER
PI 346+55.00 = 346+40.73
PI 338+90.46 = 338+90.00
BM 41-A SIT 24"E ELEV. 404.40
BM 42 24"E ELEV. 437.80
349+85 114' LT.
349+85 78' LT.
349+00 71' LT.
349+00 45' RT.
352+84 60' LT.
351+00 LT. END TRUCK LANE TAPER BEGIN TRUCK LANE
BEGIN R.O.W PROJECT
F019-1(20)S STA. 349+00 32' RT.
SCALE IN FEET
GENERAL NOTE:
Drives Are To Be Constructed With A Minimum Width Of 14 Feet And A Flare Radius Of At Least 20 Feet Or As Directed By The Resident Engineer
Construct Satisfactory Approach 351 + 00 Begin Project F019-1(20)S
BEGIN PROJECT F-019-1(20)S
LANE WIDTHS (11'-11'-10')
+3.8954 %
-6.9970 %
6" UNDERDRAIN
PVI 350+60
Elev. 446.00
L=980'
K=89
SSD=648
346
SURVEY CL.
DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A
SCALE
HORIZONTAL 1"=50'
VERTICAL 1"=10'
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
F 019-1(20)S
10 OF 12
114
PLATE 1 PLAN PROFILE


REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Note: 355+50 Rt ~ 357+50 Rt. ALL TREES WHICH DO NOT INTERFERE WITH SLOPE CONSTRUCTION WILL BE SAVED
SPECIAL DITCH & STONE FILL TYPE I (EXCAVATION TO BE PAID UNDER ITEM 203.15)
GRANITE SLOPE EDGING
CARLO, JAMES & ROSE
LORENTI, ANNE
LORENTI, PATRICK: ESTATE OF
LORENTI, ANNE: EXECUTRIX
BROWN, ROBERT F JR. & MARY L.
GUETTI, JENE F
VICTORIA BAKER
DAVIS, GORDIAN P
FOSTER, JOHN C. & RUTH E.
HEIL, ETHEL M.
JONES, STEPHEN E. & KIMBERLY I.
GARDNER, MILTON A. JR. & BETTY L.
HATTAT, MILTON R. & HELEN M.
HATTAT, WILLIAM H. & FLORENCE I.
FORCIER, JOHN E. & THERESA C.
BROWN, ROBERT F. JR. & MARY L.
GUETTI, JENE F.
EROSION MATTING
DRILLING AND BLASTING OF SOLID ROCK SUBGRADE
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION
Rev. 363+55 Lt. Remove and replace Concrete walk and steps as directed by the Engineer
Rev. 361+48 Rt. (11+55 Lt.) Construct Concrete Steps 5' Wide
Cut To Fill Transition
Cut To Fill Transition
EXISTING ROADWAY
6" UNDERDRAIN
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
F 019-1(20)S
11 OF 12
PLATE 1, PLAN-PROFILE



REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL
Lt Rt
369+00 ~ 371+50
(Surv)
CONSTRUCT DRIVE
Lt Rt
371+27 (paved) 375+00 (20' Wide)
374+55 (30' Wide) 373+00
375+25 (30' Wide)
375+87
SPECIAL DITCH TO BE PAID FOR UNDER ITEM 203.15
Lt Rt
371+75 ~ 374+00
MUCK EXCAVATION
Lt Rt
369+00 ~ 371+00
REMOVAL OF CONCRETE SLABS TO BE PAID FOR UNDER ITEM 203.16 SOLID ROCK EXCAVATION
369+00 ~ 379+00
BITUMINOUS CONCRETE CURB, TYPE A
Lt Rt
374+70 ~ 375+10
375+40 ~ 375+80
374+00 ~ 374+15
EROSION MATTING
Lt Rt
369+00 ~ 370+76
371+50 ~ 374+00
END R.O.W. PROJECT
F019-1(20)S STA. REV. 379+25 45' RT.
GAGNON, RICHARD R. & GRACE E.
CARLO & LORENTI
ZACHER, RICHARD M. (LESSOR)
ROCK MAPLE GIFT SHOP (LESSEE)
ZACHER, LINDA M. & RICHARD M.
LEONARD, TRUMAN F. & LOIS A.
BESHARA, JOANNE M.
BROWN & GUETTI
MATCH LINE
SHEET 11 OF 12
BM 46A SIP 148/133 ELEV. 325.23
BM 47A SIP 129 ELEV. 318.12
TBM 47A CHIS □ S.E. CORNER POST ELEV 318.12
Rev. Curve #6 Data
Δ=28°44'01" RT.
D=5°
R=1145.92
T=293.51
L=574.67
E=36.99
BNK .071 FT/FT
CURVE No. 6 DATA
Δ=24°37' RT
D=5°
R=1145.92
T=250.03
L=492.33
E=26.96
12' R.O.W. TO TOWN
SCALE IN FEET
END PROJECT F 019-1(20)S Construct Satisfactory Approach
376+00
-1.1349%
-2.3000%
6" UNDER DRAIN
V.P.I. 378+00
ELEV. 317.30
L=150'
K=128
SURVEY CL.
DATUM
VERTICAL NGVD. 1929
HORIZONTAL N/A
SCALE
HORIZONTAL 1"=50'
VERTICAL 1"=10'
SURVEYED BY COARSE DATE 1-82
DRAWN BY TOOLAN DATE 3-82
TRACED BY TOOLAN DATE 3-82
POWNAL
F 019-1(20)S
12 OF 12
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K+E PLATE 1, PLAN-PROFILE