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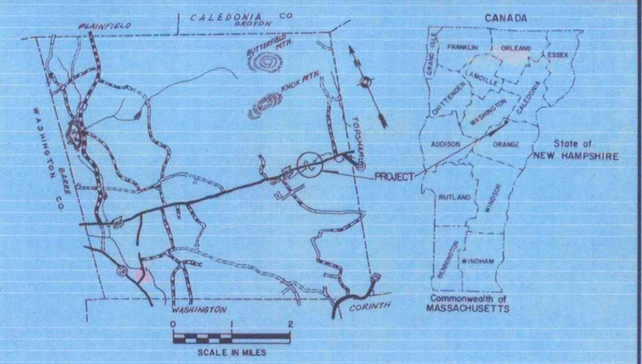
RECORD PLANS-MATERIAL SUPPLIERS

CONTRACTOR—EUGENE & JUDITH GRANDFIELD, MORETOWN, VT.
CONTRACT DATED-11 OCTOBER 1977
CONSTRUCTION BEGAN-12 OCTOBER 1977
CONSTRUCTION SUSPENDED-30 NOVEMBER 1977 RESUMED-15 JUNE 1978
CONSTRUCTION COMPLETED-29 AUGUST 1978 ACCEPTED-13 SEPTEMBER 1978
RESIDENT ENGINEER-R.W. JENSEN RECORD PLANS-PAUL E. SINGLETON
SAND BORROW, GRANULAR BORROW, GRANULAR BACKFILL FOR STRUCTURES-KNAPP PIT WEST TOPSHAM, VT.
SUBBASE OF GRAVEL-LE PAGE PIT, BARRE, VT. CONCRETE-ANDERSON, BERLIN, VT.
REINFORCING STEEL-AUBURN STEEL CO. INC., AUBURN, N.Y.
CGMP, ACCGMP-LANE METAL PROPUCTS INC., BALLISTON, N.Y.
CAST IRON GRATES WITH FRAMES-L.E. LEBARRON FOUNDRY CO., BROCKTON MASS.
UNDERDRAIN, CARRIER PIPE, FLUSHING BASINS-LANE METAL PRODUCTS INC., BALLISTON, N.Y.
WOOD MARKER POSTS, BOUNDRY MARKERS, GUARD RAIL, ANCHORS FOR GUARD RAIL, CABLE FOR GUARD RAIL (BREAKAWAY), SEED, FERTILIZER, HAY MULCH, EXCELSIOR MATTING-LAFAYETTE-SHELDON INC., ESSEX JCT. VT.

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

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS



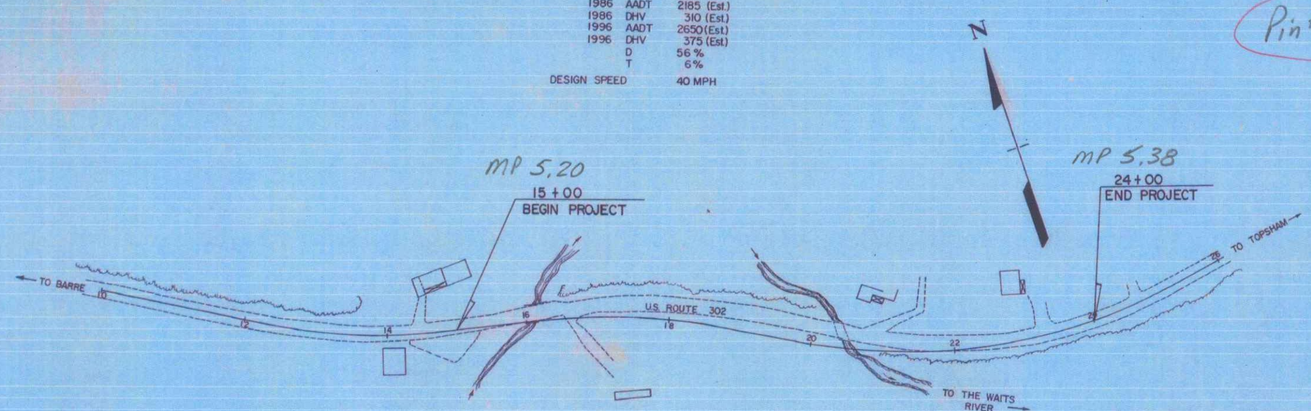
PROPOSED IMPROVEMENT
TOWN OF ORANGE
COUNTY OF ORANGE
U.S. ROUTE 302

BEGINNING AT A POINT ON U.S. ROUTE 302, 5.21 MILES EASTERLY OF THE ORANGE / BARRE TOWN LINE, AND EXTENDING EASTERLY 0.170 MILES.

LENGTH OF PROJECT 900 FEET = 0.170 MILES

1976	AADT	1720
1986	AADT	2185 (Est.)
1986	DHV	310 (Est.)
1996	AADT	2650 (Est.)
1996	DHV	375 (Est.)
	D	56 %
	T	6 %
DESIGN SPEED		40 MPH

Pin # 76E097



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
F.A. CONST. IDENTIFICATION SIGNS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS
TOP OF CUT
TOE OF SLOPE

80 0 80 160 240 320
SCALE IN FEET

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Chief Engineer.

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, including all subsequent revisions and such revised specification and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD
APPROVED S. J. Gray CHIEF ENGINEER DATE 7/22/77

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DIVISION ENGINEER DATE _____

PROJECT TQF Nº 026-1(16)
SHEET 1 OF 44 SHEETS

D-10 SRS 12/17/70

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
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	McKAY, DUNCAN C. & JUDITH M. (H&W)	4,5,6	REV. 12+31.23 RT.	REV. 24+91 RT.	0.75 A±	74.25 A±		W.D.&E.	8-29-77	ORANGE	29	21,22	
			REV. 13+76 RT.	REV. 14+44 RT.			CONST. EASE. (T)						(0.07 A±)
			REV. 14+28 RT.				CULVERT, DITCH & DRAINAGE (P)						
			REV. 16+50 RT.	REV. 17+50 RT.			DRIVE (T)						12', GRAVEL, M.P. 0524 DRIVE RELEASE DATE· DRIVE PERMIT DATE·
			REV. 16+60 RT.	REV. 18+90 RT.			SLOPE (T)						(0.07 A±)
			REV. 19+55 RT.	REV. 20+90 RT.			SLOPE (T)						(0.02 A±)
			REV. 24+00 RT.	REV. 24+10 RT.			DITCH & DRAINAGE (P)						
			REV. 14+10 RT.				ALL R.T. & I.						BARN
			REV. 14+15 RT.	REV. 15+50 RT.									PRIVATE POLES & POWER LINE
			REV. 14+00 RT.				DRIVE (T)						40', GRAVEL, M.P. 0598 DRIVE RELEASE DATE· DRIVE PERMIT DATE·
			REV. 13+70 RT.	REV. 14+71 RT.			RIGHT TO CONST. (T)						TURN-OUT
1B		5	REV. 15+55 LT.	REV. 16+55 LT.	0.04 A±								(1875 S.F.±)
			REV. 12+31.23 LT.	REV. 18+15 LT.		25.0 A±							
				TOTAL	0.79 A±	99.25 A±							
2	DIMICK, RODNEY D. & LINDA A.	5,6	REV. 19+95 LT.	REV. 20+30 LT.			CHANNEL (P)						135 S.F.
			REV. 21+16 LT.				DRIVE (T)						14', GRAVEL, M.P. 0533 DRIVE RELEASE DATE· DRIVE PERMIT DATE·
3	MARTIN, ROBERT G. & BEVERLY (H&W)	6	REV. 22+05 LT.	REV. 23+35 LT.			SLOPE (T)						(0.03A±)
			REV. 23+75 LT.	REV. 24+15 LT.			SLOPE (T)						(60 S.F.±)
4	TOPSHAM TELEPHONE CO., INC.												UTILITY
5	WASHINGTON ELECTRIC COOPERATIVE INC.												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	3,4 & 5	PARCEL NO. 1 MC KAY ADDED PRIVATE POWER LINE & POLES TO LAYOUT & DETAIL SHEETS PER C.O.# 3292	2/9/77	A.G.S.	T.P.M.
2	3,6	Parcel No. 2 Add Channel Rights Limits Per C.O.# 3337	4/13/77	A.G.S.	T.P.M.
3	3,5,6	Parcel #2 Dimick. Change in Title from Bushey to Dimick Per C.O.# 3350	4/20/77	A.G.S.	T.P.M.
4	3,4	Parcel #1A McKay Added Drive at Sta. 14+00.RT Also Added Right to Construct Turnout (T) Per C.O. # 3537	10/26/77	KAP	T.P.M.

MADE BY: KDP DATE 2-2-77

CHECKED BY: WEB DATE 2-2-77

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

LEGEND

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

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

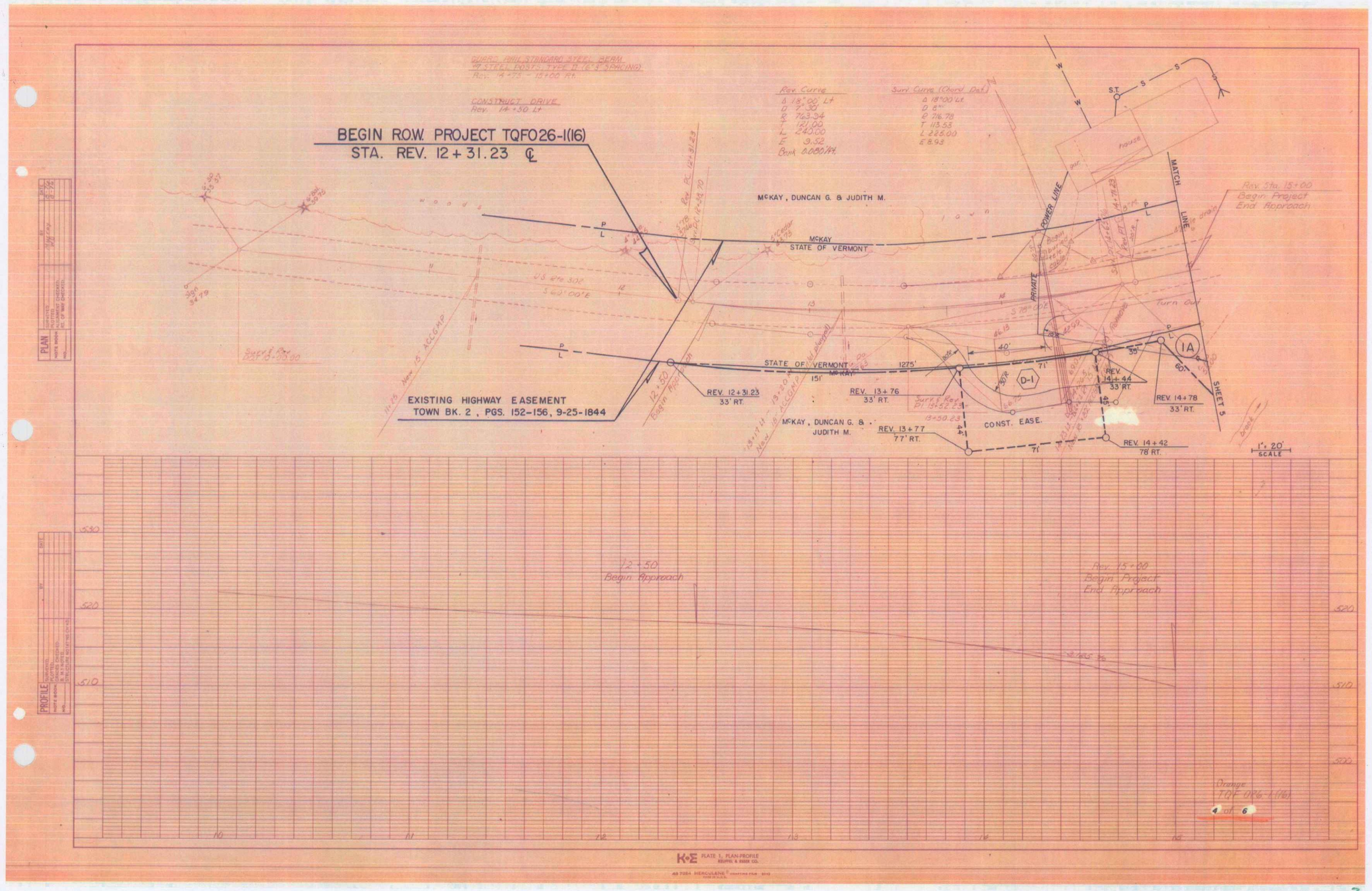
APPROVED Thomas F. Mayo CHIEF OF PLANS & TITLES DATE 2-2-77

PROJECT ORANGE
NO. TQF 026-1 (16)
SHEET 3 OF 6

Sheet 3 of 44

ROW

2


BEGIN R.O.W. PROJECT TQF026-1(16)
STA. REV. 12 + 31.23 ℄
EXISTING HIGHWAY EASEMENT
TOWN BK. 2, PGS. 152-156, 9-25-1844
McKAY, DUNCAN G. & JUDITH M.
McKAY
STATE OF VERMONT
CONST. EASE.
REV. 12+31.23
33' RT.
REV. 13+76
33' RT.
REV. 13+77
77' RT.
REV. 14+44
33' RT.
REV. 14+78
33' RT.
REV. 14+42
78' RT.
MATCH LINE
SHEET 5
1" = 20'
SCALE
Rev. Sta. 15+00
Begin Project
End Approach
12+50
Begin Approach
Rev. 15+00
Begin Project
End Approach
Orange
TQF 026-1(16)
4 of 6

3

DEMOLITION / DISPOSAL OF BUILDING
(L) Barn 14+10 20' Rt.

GUARD RAIL STANDARD STEEL BEAM
W WOOD POSTS, TYPE II (6'-3" SPACING)
Rev. 14+49 - 15+00 Rt.

CONSTRUCT DRIVE
Rev. 14+30 Lt.

BREAKAWAY CABLE TERMINAL FOR GUARD RAIL
STEEL BEAM W WOOD POSTS, TYPE II
STA 14+24 Rt. - 14+49

Rev. Curve
Δ 18°00' Lt
D 7°30'
R 763.94
T 121.00
L 240.00
E 9.32
Bank 0.080 ft/ft

Surv. Curve (Chord Def.)
Δ 18°00' Lt
D 8°
R 716.78
T 113.53
L 225.00
E 8.93

Approx relocation route of buried Tel Cable (Mpshaw Tel Co.)

Rev. Sta. 15+00
Begin Project
End Approach

Approx. Location of Exist. Buried Tel Cable

house
gar.
woods
U.S. Rte. 302
S 60°00'E
S 78°00'E
Turn Out
Barn
(L)
Sign 34.79
Surv. & Rev. PI 10+00.00
11+25 New 15' ACCMP
Rev. PC 12+31.23
Sta PC 12+34.70
12+50 Begin Approach
REV. 12+31.23 33' RT
13+17 Lt - 13+20 Rt New 18" ACCMP (outlet plugged)
Surv. & Rev. PI 13+52.23 = 13+50.23
14+23 Lt - 14+42 Rt New 18" ACCMP (outlet plugged)
REV. 14+78 33' RT.
1" = 20'
brook

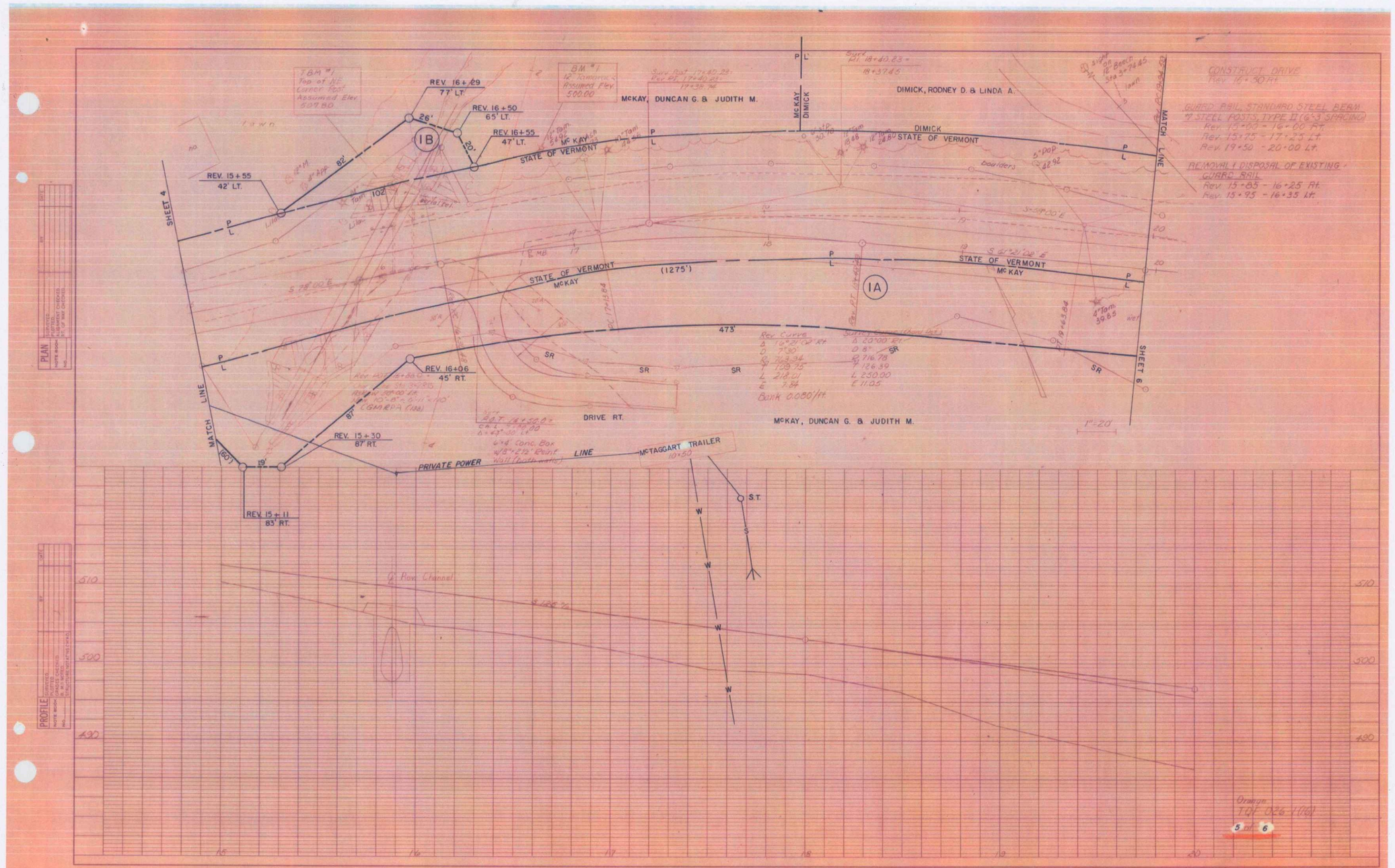
530
520
510
500
12+50
Begin Approach
Rev. 15+00
Begin Project
End Approach
-5.58
-32.165 %

10 11 12 13 14 15

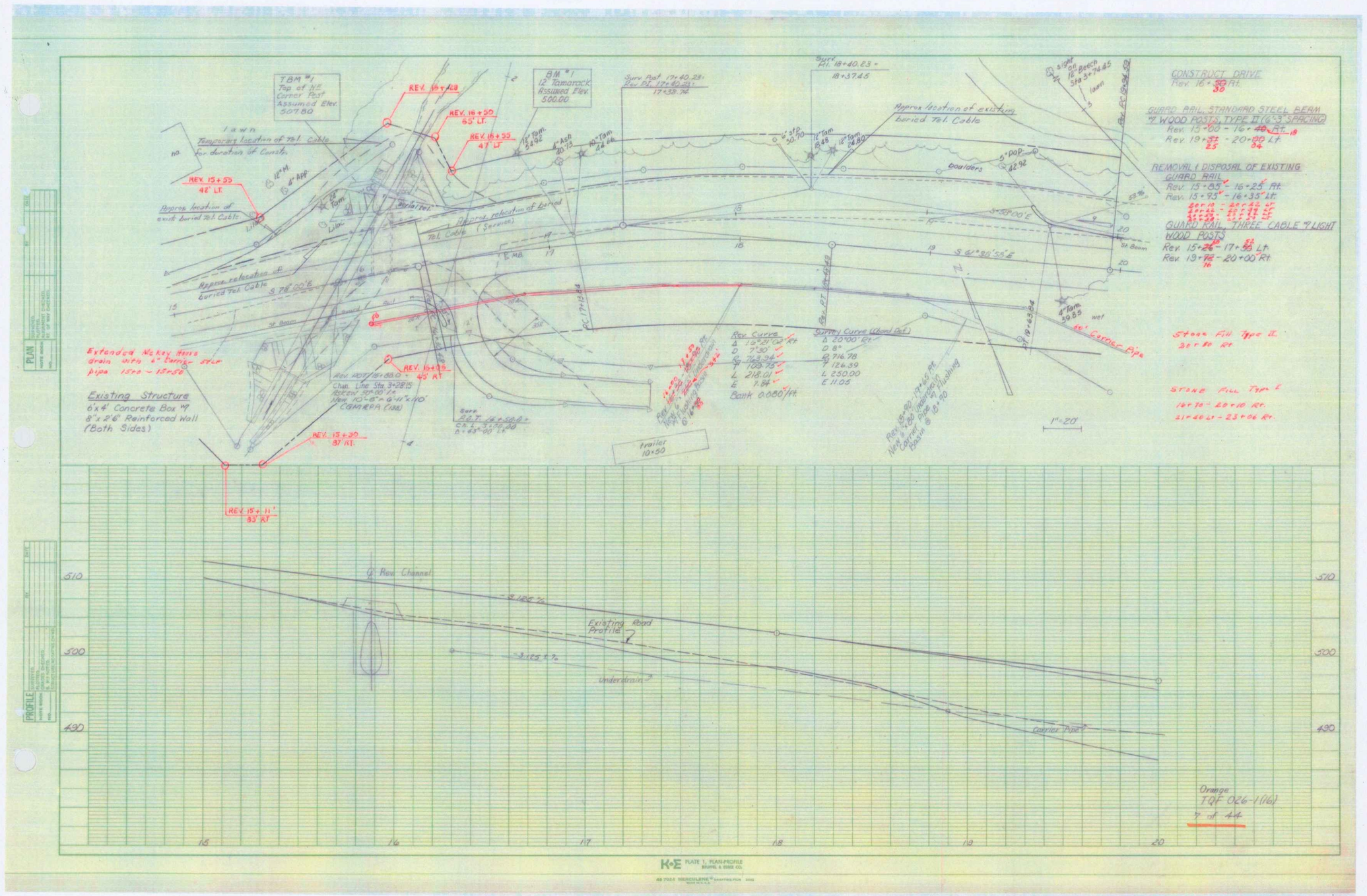
Orange
TQF 026-1(16)
6 of 14

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
49 7024 HERCULENE DRAFTING FILM

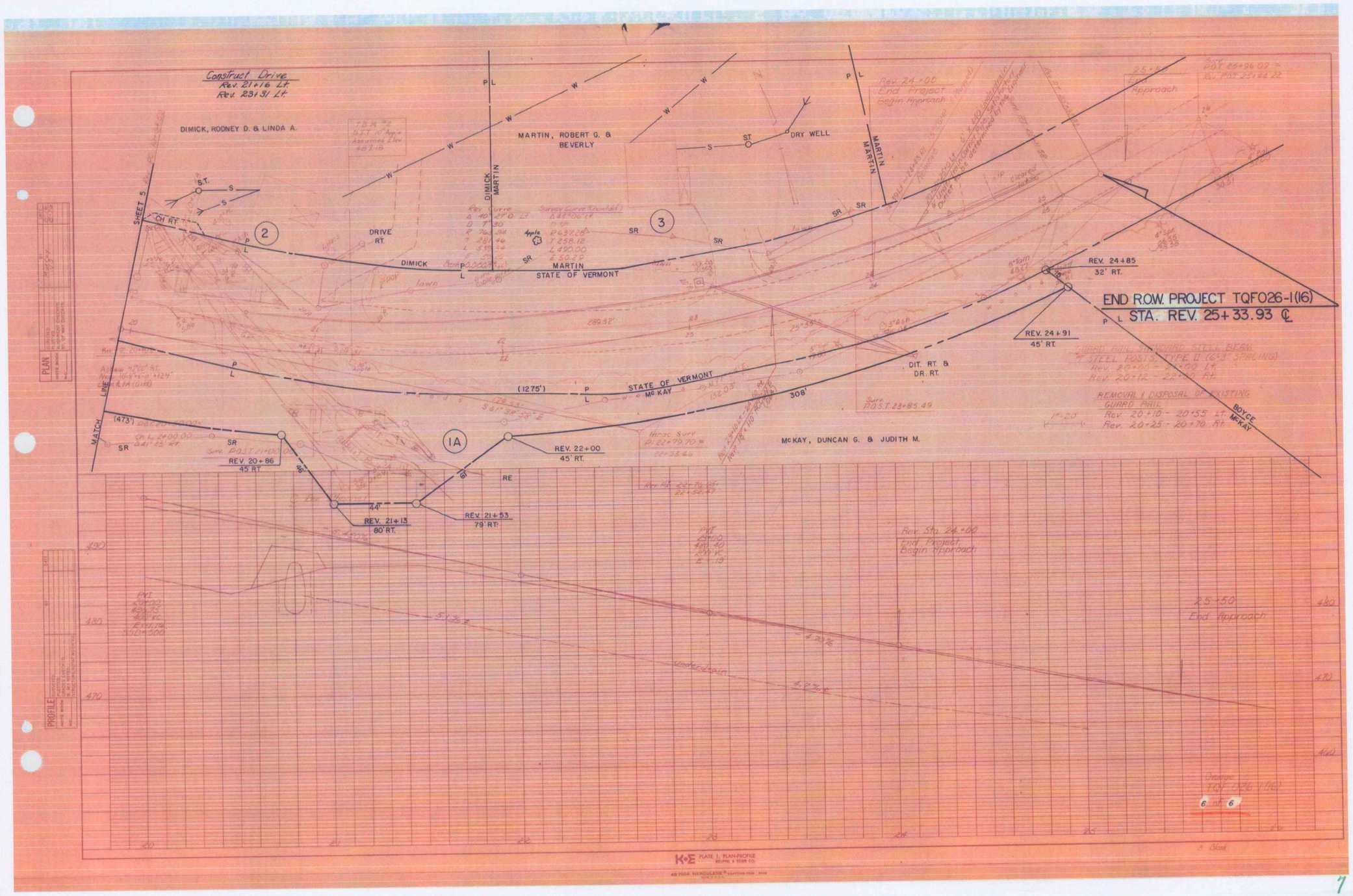
4


T.B.M. #1
Top of N.E. Corner post
Assumed Elev. 507.80
B.M. #1
12" Tamarack
Assumed Elev. 500.00
REV. 16+29
77' LT.
REV. 16+50
65' LT.
REV. 16+55
47' LT.
REV. 15+55
42' LT.
REV. 16+06
45' RT.
REV. 15+30
87' RT.
REV. 15+11
83' RT.
McKAY, DUNCAN G. & JUDITH M.
DIMICK, RODNEY D. & LINDA A.
McKAY
DIMICK
STATE OF VERMONT
(1275')
473'
DRIVE RT.
PRIVATE POWER LINE
McTAGGART TRAILER
S.T.
SHEET 4
SHEET 6
MATCH LINE
CONSTRUCT DRIVE
GUARD RAIL, STANDARD STEEL BEAM
W STEEL POSTS, TYPE II (6'-3 SPACING)
REMOVAL & DISPOSAL OF EXISTING GUARD RAIL
Bank 0.080'/ft
1"=20'
PLAN
PROFILE
Orange
TQV 026 (1701)
5 of 6
K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.

5


TBM #1
Top of NE Corner Post
Assumed Elev. 507.80
BM #1
12 Tamarack
Assumed Elev. 500.00
lawn
Temporary location of Tel. Cable for duration of Const.
REV. 15+53 42' LT.
REV. 16+50 65' LT.
REV. 16+53 47' LT.
Approx location of exist. buried Tel. Cable
Approx. relocation of buried Tel. Cable (Sewer)
Approx location of existing buried Tel. Cable
Boulders
S 78°00'E
S 61°30'55"E
Extended Nekey Ross drain with 6" Corrug. Steel pipe 15+0 - 15+50
Existing Structure
6'x4' Concrete Box #9
8"x 2'6" Reinforced Wall (Both Sides)
REV. 16+05 45' RT.
REV. 15+30 87' RT.
REV. 15+11 83' RT.
Chan. Line Sta. 3+28.15
Skew 50°00'Lt.
Vert. 10'-8" = 6'-11" x 4'-10"
(CAMRPA 108)
Rev. Curve
Δ 16°21'00" Rt.
D 7°30'
Rc 763.94
T 109.75
L 218.01
E 7.84
Bank 0.080'/ft.
Survey Curve (Chord Def.)
Δ 20°00' Rt.
D 8°
Rc 716.78
T 126.39
L 250.00
E 11.05
trailer 10+50
1"=20'
CONSTRUCT DRIVE
Rev. 16+50 Rt.
GUARD RAIL, STANDARD STEEL BEAM #9 WOOD POSTS, TYPE II (6'-3" SPACING)
Rev. 15+00 - 16+48 Rt.
Rev. 19+51 - 20+00 Lt.
REMOVAL & DISPOSAL OF EXISTING GUARD RAIL
Rev. 15+85 - 16+25 Rt.
Rev. 15+95 - 16+35 Lt.
GUARD RAIL, THREE CABLE #9 LIGHT WOOD POSTS
Rev. 15+26 - 17+55 Lt.
Rev. 19+72 - 20+00 Rt.
Stone Fill Type II
20+80 Rt.
STONE FILL TYPE I
16+70 - 20+10 Rt.
21+40 Lt. - 23+06 Rt.
Carrier Pipe
Rev. 15+90 - 17+45 Rt.
New 4'x 20' Inlet with Flashing
Carrier Pipe
Basin @ 16+90
Rev. 15+90 - 17+45 Rt.
New 4'x 20' Inlet with Flashing
Carrier Pipe
Basin @ 16+90
PLAN
PROFILE
510
500
490
℄ Rev. Channel
-3.126 %
Existing Road Profile
-3.125 ± %
Underdrain
Carrier Pipe
15
16
17
18
19
20
Orange
TQF 026-1(16)
7 of 44
K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
46 7026 HERCULENE

6


Construct Drive
Rev. 21+16 Lt.
Rev. 23+31 Lt.
DIMICK, RODNEY D. & LINDA A.
MARTIN, ROBERT G. & BEVERLY
DRY WELL
DIMICK
MARTIN
SHEET 5
CH RT
DRIVE RT.
STATE OF VERMONT
McKAY
(1275')
308'
(473')
MATCH LINE
DIT. RT. & DR. RT.
McKAY, DUNCAN G. & JUDITH M.
BOYCE
REV. 24+85
32' RT.
REV. 24+91
45' RT.
END R.O.W. PROJECT TQF026-1(16)
STA. REV. 25+33.93 ℄
REV. 20+86
45 RT.
REV. 22+00
45' RT.
REV. 21+13
80' RT.
REV. 21+53
79' RT.
44'
IA
PLAN
PROFILE
Rev. Sta. 24+00
End Project
Begin Approach
25+50
End Approach
6 of 6

7

Existing Bridge
Concrete Slab (Built in 1922)
Solid Concrete Guard Rail

T.B.M. #2
S.I.T. 10" Angle
Assumed Elev.
487.18

Temp. Location of Tel. Cable for duration of Const.

Approx. Location of End buried Tel. Cable

Rev. Curve
Δ 40° 37' 01" Lt.
D 7° 30'
R 763.94
T 281.46
L 539.34
E 50.20
Point 0.080' Rt.

Survey Curve (Chord bf.)
Δ 44° 06' Lt.
D 9°
R 637.28
T 258.12
L 490.00
E 50.29

Temp. Location of Tel. Cable for duration of Const. (Topsham Tel. Co.)

Approx. Location of tel. and relocated Tel. Cable

Rev. 24+00
End Project
Begin Approach (Plugged)

Remove 15" CGMP

Rev. 27 Access

25+50
End Approach

Surv. P.O.T. 25+96.09 =
Rev. P.O.T. 25+94.22

Rev. P.C. 19+94.09

Temp. Location of Tel. Cable for duration of Const.

Rev. P.C. 20+80.0=

Askew 7.2' Lt. Rt.
New 10-8"+5-11"×124'
C6M.R.PA (G138)

Rev. 20+50.00=
Ch. L. 2+00.00
Δ 41° 23' Rt.

Surv. P.O.S.T. 21+00.00

REV. 20+86
45' RT.

REV. 22+00
45' RT.

REV. 21+13
80' RT.

REV. 21+53
73' RT.

REV. 24+35
32' RT.

REV. 24+91
45' RT.

Surv. P.O.S.T. 23+85.49

Innac. Surv.
Pl. 22+79.70 =
22+53.46

Rev. P.I. 22+76.06=
22+52.47

CONSTRUCT DRIVE
Rev. 21+~~15~~ Lt.
Rev. 23+~~34~~ Lt.
25

GUARD RAIL, STANDARD STEEL BEAM
"7" WOOD POSTS, TYPE II (6'-3" SPACING)
Rev. 20+00 - 21+04 Lt.

REMOVAL & DISPOSAL OF EXISTING GUARD RAIL
Rev. ~~20+10 - 20+55~~ Lt.
Rev. ~~20+25 - 20+70~~ Rt.
} See Summary Sh. 7

1" = 20'

GUARD RAIL, THREE CABLE "7" LIGHT WOOD POSTS
Rev. 20+00 - ~~21+80~~ 22+12 Rt.

Existing Road Profile

PVI
20+00
492.75
400' VC
E = 1.16
550 = 500

PVI
23+00
490.40
200' VC
E = .19

Rev. Sta. 24+00
End Project
Begin Approach

25+50
End Approach

Underdrain

Orange
TQF 026-1(16)
8 of 44

9 & 10 Blank

K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.
46 7024 HERCULENE DRAFTING FILM