

For Index of Sheets
See Sheet 3

Dated: OCT 26 1993

Pike Industries, Inc.

Contractor

Signature

Vice President

Title

Transportation Secretary's Signature

STATE OF VERMONT AGENCY OF TRANSPORTATION

RUTLAND STATE AIRPORT TAXIWAY 'E'

CONSTRUCTION OF A PARALLEL TAXIWAY TO SERVE RUNWAY 1-19
INCLUDING DRAINAGE, TAXIWAY LIGHTING AND ASSOCIATED PAVEMENT MARKINGS

FAA PROJECT NO. 04-3083-3084 -
VAOT PROJECT NOS. AIR 04-3083/3084

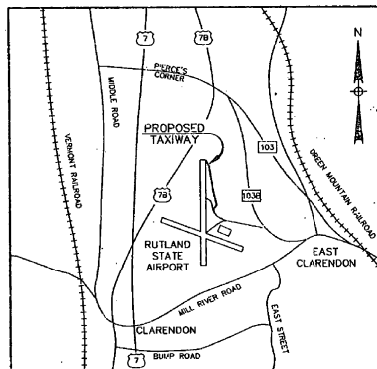
CONTRACT PLANS

THESE PLANS DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

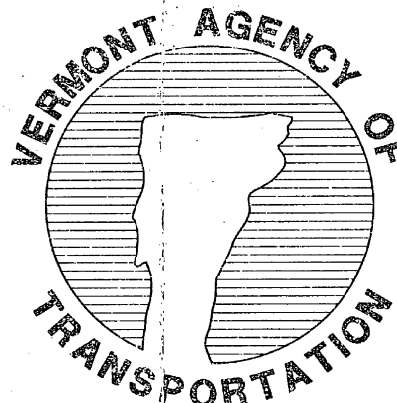
DESIGNERS STATEMENT REGARDING COMPLIANCE

These plans and specifications have been prepared to the best of my knowledge and belief in accordance with the list of current FAA Advisory Circulars for all projects provided by the FAA, in a list dated February 28, 1992. Known deviations from FAA standards were approved by FAA letters dated February 8, 1993 and are discussed in the Project Engineering Report and/or other official project documents.

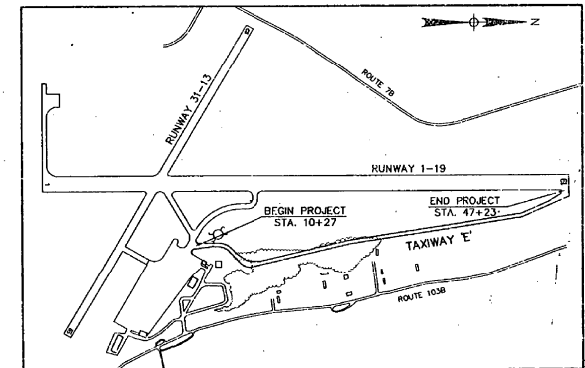
BY: *Heal J. Forschner* DATE: 8/24/93
NEAL J. FORSCHNER, P.E.



LOCATION PLAN



AUGUST 23, 1993



SITE PLAN

ENVIRODYNE ENGINEERS, INC.
CONSULTING ENGINEERS
NEW YORK, NEW YORK

ENVIRODYNE ENGINEERS, INC.

Heal J. Forschner
NEAL J. FORSCHNER
STATE OF VERMONT P.E. NO. 6446

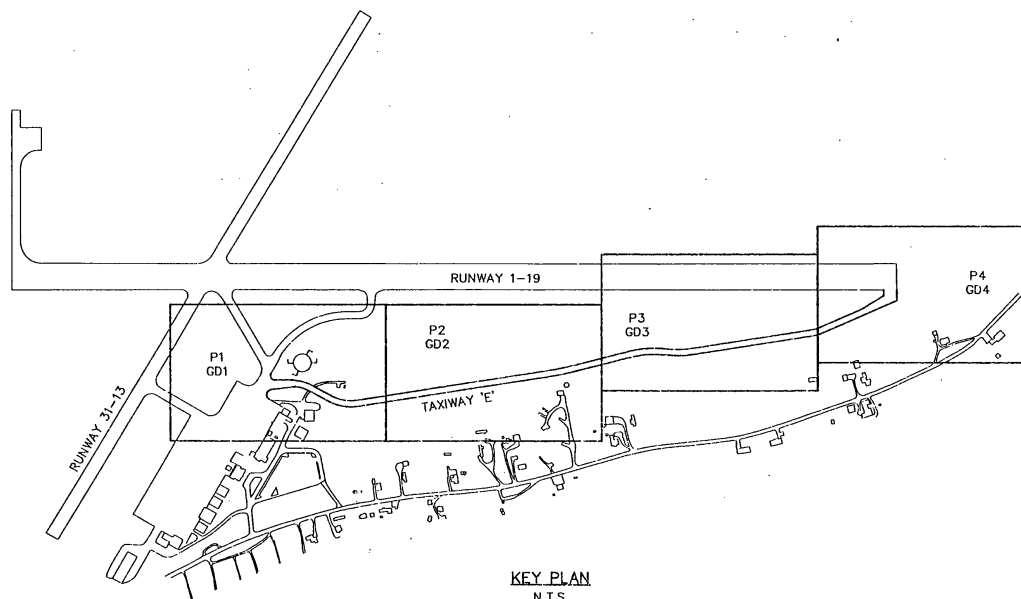
VERMONT AGENCY OF TRANSPORTATION
APPROVED: *W. S. Sullivan* DATE: 8/23/93
DIRECTOR OF TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
APPROVED: *W. S. Sullivan* DATE: 8/23/93
AIRPORT DIVISION

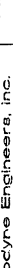
Sheet 1 of 41

EXISTING	PROPOSED	DESCRIPTION
		BORING
		TOP OF CUT
		TOP OF FILL
		CHAIN LINK FENCE
		WATER LINE
		BUILDING
		CONTOUR (1 FT.)
		CONTOUR (5 FT.)
		PROPERTY LINE
		NORTH ARROW
		MANHOLE
		CATCH BASIN
		TAXIWAY LIGHT
		UTILITY POLE
		END SECTION
		DRAINAGE FLOW
		PVC UNDERDRAINS
		UNDERDRAIN CLEANOUT
		UNDERDRAIN CLEANOUT
		OBJECT FREE AREA
		SAFETY AREA

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE AIRPORT MANAGER 48 HOURS PRIOR TO ACTUAL WORK.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION SITE.
3. ALL UNSUITABLE EXCAVATED MATERIAL SHALL BE DISPOSED OF AT THE SELECTED ON SITE LOCATION OR WHERE DIRECTED BY THE ENGINEER.
4. WHERE CONNECTIONS TO EXISTING DRAINAGE STRUCTURES ARE TO BE MADE, THE CONTRACTOR SHALL BREAK INTO THE EXISTING STRUCTURE (MAX. SIZE OF OPENING TO BE 1.0-3"), CONNECT NEW PIPE AND SEAL AROUND PIPE WITH CEMENT MORTAR.
5. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING ADJACENT TO POWER AND COMMUNICATION LINES TO PREVENT DAMAGE TO THESE LINES. THE CONTRACTOR SHALL HAND EXCAVATE TO EXPOSE THOSE LINES PRIOR TO PERFORMING ANY OTHER EXCAVATION WORK IN THE AREA. THE CONTRACTOR SHALL REPAIR ANY POWER OR COMMUNICATION INTERRUPTION IMMEDIATELY.
6. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT, APPROVED BY THE ENGINEER FOR ANY UTILITIES THAT ARE EXPOSED DURING CONSTRUCTION TO INSURE AGAINST DAMAGE.
7. SEE ELECTRICAL DRAWINGS FOR COMPLETE LAYOUT OF EXISTING AND PROPOSED ELECTRICAL AND COMMUNICATION DUCTS AND CONDUIT SYSTEMS.
8. WHERE INTERFERENCES WITH OTHER UTILITIES OR CONSTRUCTION ARE ENCOUNTERED IN ANY SANITARY OR DRAINAGE SYSTEM, THE CONTRACTOR MAY ADJUST THE ALIGNMENT OR INVERT ELEVATIONS OF THAT SYSTEM ONLY AT THE DIRECTION OF THE ENGINEER.
9. WHERE CONSTRUCTION CROSSES, OR IS ADJACENT TO EXISTING UTILITY LINES (FUEL, WATER, TELEPHONE, GAS, ELECTRIC, COMMUNICATION), THE CONTRACTOR SHALL NOTIFY THE UTILITY INVOLVED PRIOR TO PROCEEDING, UPON NOTICE TO PROCEED THE CONTRACTOR SHALL CAREFULLY HAND EXCAVATE SO AS TO LOCATE, MARK, PROTECT THE UTILITY LINES AGAINST DISTURBANCE OR DAMAGE.
10. DURING THE COURSE OF CONSTRUCTION, EROSION CONTROL WILL BE PRACTICED. SEE DETAILS ON DRAWING NOS. WM1-WM4 AND DD2.
11. CONTRACTOR TO COORDINATE HIS/HER WORK WITH FAA PERSONNEL RESPONSIBLE FOR THE MAINTENANCE OF THE LOCALIZER.



KEY PLAN
N.T.S.

RUTLAND STATE AIRPORT CLARENDON, VERMONT TAXIWAY E LEGEND, NOTES AND KEY PLAN	DRAWING NO. G1		PROJECT NO. 7804		NOT TO SCALE DATE: JUNE 14, 1983 DESIGNED BY: F.S. DRAWN BY: D.W. CHECKED BY: L.G.		SECTION DESCRIPTION DATE	
			Enivodyne Engineers, Inc. 41 East 42nd St., Suite 1015 New York, NY 10017		SEAL 			

INDEX OF DRAWINGS

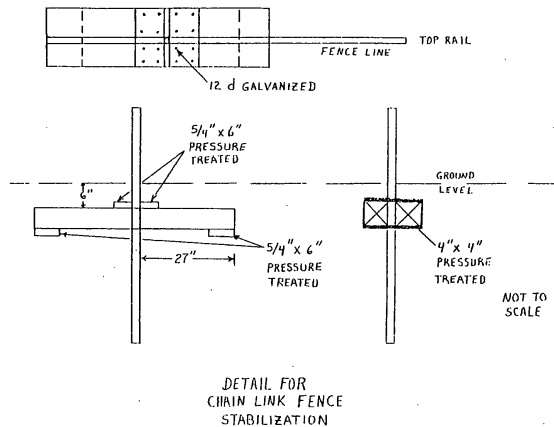
SHEET NO.	DRAWING NO.	DRAWING TITLE
1		TITLE SHEET
2	G1	LEGEND, GENERAL NOTES, AND KEY PLAN
3	G2	INDEX AND STANDARD DRAWINGS
3A & 3B		QUANTITY SHEETS
3C & 3D		BORING LOGS
4	BP1	SAFETY PLAN
5	C1	HORIZONTAL AND VERTICAL CONTROL
6	T&I	TYPICAL SECTION
7-10	P1-4	SITE PLANS
11-15	DD1-5	GRADING AND DRAINAGE PLANS
16	PR1	TAXIWAY PROFILE
17-20	LI-4	LIGHTING PLANS AND DETAILS
21-22	SI-2	SIGNING AND STRIPING PLANS
23-26	WH1-4	WETLAND MITIGATION AND EROSION CONTROL PLANS AND DETAILS
27-28	DD1-2	DRAINAGE DETAILS
29	HR1	HAUL ROAD AND SPOIL AREA PLAN
30	BF1	BLAST FENCE
31-41		CROSS SECTIONS

THE FOLLOWING DRAWINGS ARE TO BE REFERENCED AND APPLIED WHEN APPLICABLE:

V.A.O.T. STANDARD AP-2	LIGHTING & ELECTRIC DETAILS
V.A.O.T. STANDARD AP-3	MISCELLANEOUS AIRPORT DETAILS
V.A.O.T. STANDARD AP-9	TRANSPORTATION VAULT DETAILS
V.A.O.T. STANDARD AP-10	RUNWAY MARKING DETAILS
V.A.O.T. STANDARD AP-11	TAXIWAY AND APRON MARKING DETAILS
V.A.O.T. STANDARD AP-12	SGN SYSTEMS
V.A.O.T. STANDARD D-11	FLUSHING BASINS
V.A.O.T. STANDARD E-113	REGULATORY SIGNS
V.A.O.T. STANDARD F-2	CHAIN LINK FENCE

THE FOLLOWING FAA ADVISORY CIRCULARS ARE TO BE REFERRED TO AND APPLIED WHEN APPLICABLE:

F.A.A. AC150/5370-2C	OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION
F.A.A. AC150/5370-10A	STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS
F.A.A. AC150/5345-44E	SPECIFICATIONS FOR TAXIWAY AND RUNWAY SIGNS



SEAL

hgg

DATE

BY

SCALE

REVISION

DESCRIPTION

PROJECT NO.

7804

ENVIRONMENTAL ENGINEERS, INC.

41 East 42nd St. Suite 1015

New York, NY 10017

DESIGNED BY

F.S.

CHECKED BY

D.W.

DATE

AUG. 22, 1993

NOT TO SCALE

RUTLAND STATE AIRPORT

CLARENDON, VERMONT

TAXIWAY E

INDEX AND STANDARD DRAWINGS

DRAWING NO.

G2

SHEET 3 OF 41

STATE OF VERMONT
AGENCY OF TRANSPORTATION[illegible][illegible]

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

										QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
										8200	LF	ELECTRICAL CONDUIT, (MOD.)	678.21	-
										2000	SF	P-620 RUNWAY AND TAXI-WAY PAINTING	864.03	-
										8200	LF	CABLE TRENCH L-108	864.04	-
										8200	LF	L-108, 1/C #8, L-824, TYPE C 5KV	864.05	-
										8200	LF	L-108, #8 COUNTERPOISE WIRE	864.06	-
										1	LS	L-109, INSTALLATION OF AIRPORT TRANSFORMER VAULT EQUIPMENT (MOD.)	864.07	-
										60	LF	L-110, 2 WAY X 4' DIA. U.G. ELEC. DUCT	864.08	-
										300	LF	L-110, 4 WAY X 4' DIA. U.G. ELEC. DUCT	864.09	-
										78	EA	MEDIUM INTENSITY TAXIWAY LIGHTS BASE MOUNTED	864.11	-
										5	EA	TAXI-WAY GUIDANCE SIGNS, 5 PANEL, SIZE 1, STYLE 2, CLASS 2	864.14	-
										4	EA	TAXI-WAY GUIDANCE SIGNS, 5 PANEL, SIZE 1, STYLE 2, CLASS 2 (MOD.)	864.14	-

DETAILED SUMMARY OF QUANTITIES

[illegible]

DETAILED SUMMARY OF QUANTITIES

[illegible][illegible]

GENERAL NOTES

1. This report was prepared by the U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi 39180.

2. The data were obtained from the following sources:

3. The data were obtained from the following sources:

4. The data were obtained from the following sources:

5. The data were obtained from the following sources:

6. The data were obtained from the following sources:

7. The data were obtained from the following sources:

8. The data were obtained from the following sources:

9. The data were obtained from the following sources:

10. The data were obtained from the following sources:

11. The data were obtained from the following sources:

12. The data were obtained from the following sources:

13. The data were obtained from the following sources:

14. The data were obtained from the following sources:

15. The data were obtained from the following sources:

16. The data were obtained from the following sources:

17. The data were obtained from the following sources:

18. The data were obtained from the following sources:

19. The data were obtained from the following sources:

20. The data were obtained from the following sources:

BORE NO. 8-1

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0						
10						
20						
30						
40						
50						
60						

BORE NO. 8-2

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0						
10						
20						
30						
40						
50						
60						

BORE NO. 8-3

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0						
10						
20						
30						
40						
50						
60						

BORE NO. 8-4

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0						
10						
20						
30						
40						
50						
60						

BORING NO. B-5									
ELEV.	DEPTH	BLOWS ON STANDARD PENETRATION TEST	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL			
						0'-9" Top Soil 9" 31" clay, silt, loam 31"-36" silt loam w/ 20% GRAVEL INCREASING Gravel content with depth Hole terminated At 36" water at 35"			
	10								
	20								
	30								
	40								
	50								
	60								

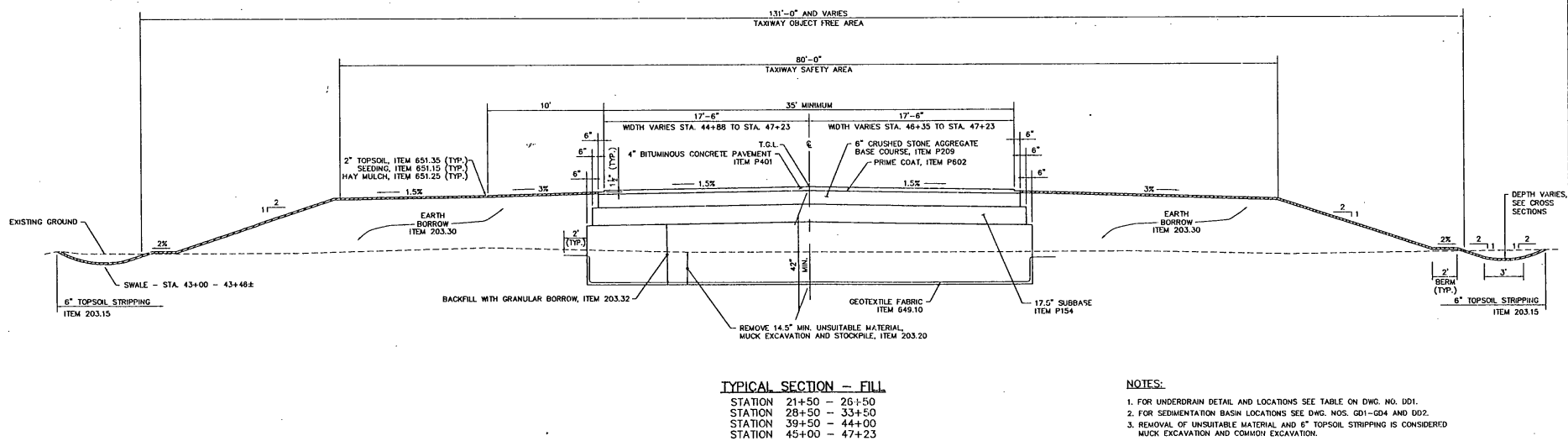
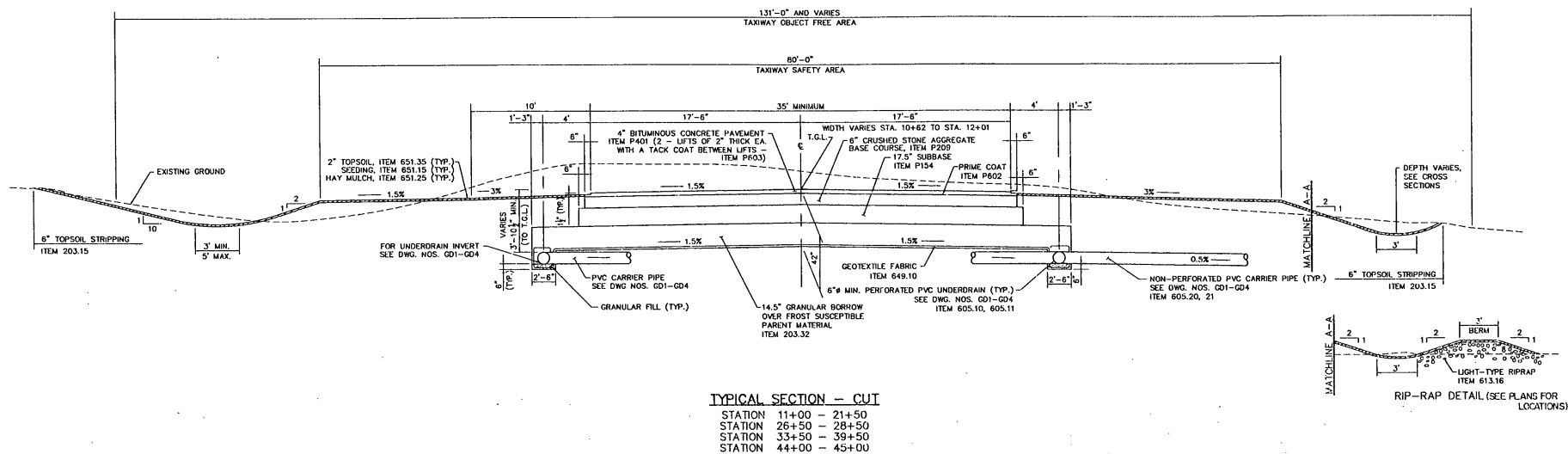
BORING NO. B-6									
ELEV.	DEPTH	BLOWS ON STANDARD PENETRATION TEST	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL			
						NO INFORMATION AVAILABLE			
	10								
	20								
	30								
	40								
	50								
	60								

BORING NO. B-7									
ELEV.	DEPTH	BLOWS ON STANDARD PENETRATION TEST	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL			
	5	55-1			BR	Moist sand silt 0" - 9"			
	22	55-2			BR	9" - 2' 4" moist fine to coarse sandy silt 2' 4" to 4' moist, very dense lt. brown fine sandy silt with gravel 4' to 4' 7" wet very dense fine sand, trace of gravel, rock fragments. Hole terminated at 4' 7" Groundwater level recorded at 1' 0" after 30 minutes			
	10								
	20								
	30								
	40								
	50								
	60								

BORING NO. B-8									
ELEV.	DEPTH	BLOWS ON STANDARD PENETRATION TEST	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL			
	5	55-10			BR	Moist sand silt 11" to 2' 0"			
		55-10			BR	wet fine sand silt trace of coarse sand			
	19	55-2			BR	2' 4" wet dense sand trace of silt			
	22	55-3			BR	4' 6" wet dense sand trace of silt			
	3	55-4				6' 8" wet dense sand trace of silt			
	62				BR	8' 10" wet dense sand trace of silt fragmented rock grey Hole terminated at 10' Groundwater level recorded at 2' 2" after 30 minutes			
	10								
	20								
	30								
	40								
	50								
	60								

BORING NO. B-9									
ELEV.	DEPTH	BLOWS ON STANDARD PENETRATION TEST	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL			
	7	55-10			BR	Moist sand silt			
		55-10			BR	9' 2' moist compact fine sand silt fractured rock			
	22	55-2			BR	2' 4' dense sand silt fractured rock			
	32	55-3			BR	Very dense fine sand silt fractured rock 4' - 6'			
	26	55-4			BR	6' 8" very dense fine sand silt fractured rock			
	50	55-5			OR	8' 8" moist very dense fine sand silt fractured rock Hole terminated at 9' 6" Groundwater level recorded at 7' 0" after 30 minutes			
	10								
	20								
	30								
	40								
	50								
	60								

SURVEYED BY _____ DATE _____
 DRAWN BY _____ DATE _____
 SQUAD LEADER _____
 DESIGN FILE NO. _____
 I/PARM FILE _____ DATE PLOTTED _____
 PROJ. NAME Rutland Airport
 PROJ. NO. _____
 SHEET 30 OF 41 SHEETS

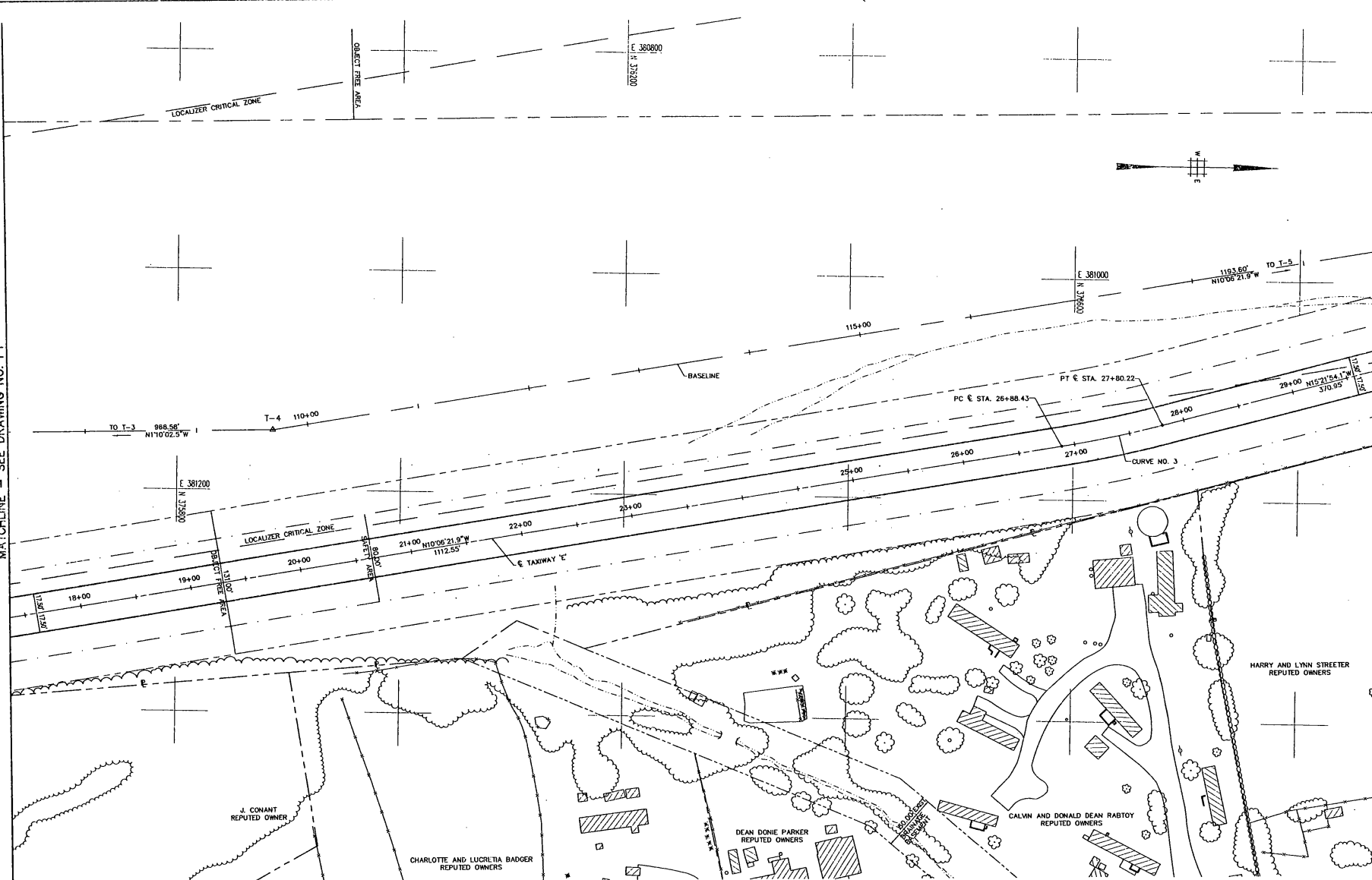


- NOTES:

1. FOR UNDERDRAIN DETAIL AND LOCATIONS SEE TABLE ON DWG. NO. DD1.
2. FOR SEDIMENTATION BASIN LOCATIONS SEE DWG. NOS. GD1-GD4 AND DD2.
3. REMOVAL OF UNSUITABLE MATERIAL AND 6" TOPSOIL STRIPPING IS CONSIDERED MUCK EXCAVATION AND COMMON EXCAVATION.
4. FOR DEVIATIONS FROM THE TYPICAL SECTIONS, SEE CROSS SECTIONS.
5. ALL EXCAVATED MATERIAL TO BE STOCK PILED ACCORDING TO HYDRIC SOIL AND TOP SOIL OR AS DIRECTED BY ENGINEER.

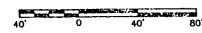
MATCHLINE - SEE DRAWING NO. P1

MATCHLINE - SEE DRAWING NO. P3



CURVE	RADIUS	LENGTH	TANGENT	DELTA
3	1000.00'	91.79'	45.84'	05°15'32.2"

CURVE	STATION	POINT	NORTH	EAST	STATION	OFFSET
3	26+88.43	PC3	376589.635	38151.083	116+60.52	126.75' RT.
	27+80.22	PT3	376679.131	38130.656	117+52.18	124.54' RT.



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E

SITE PLAN

PROJECT NO. 7804

Envirowdyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

DATE: AUG. 23, 1993
SCALE: 1" = 40'

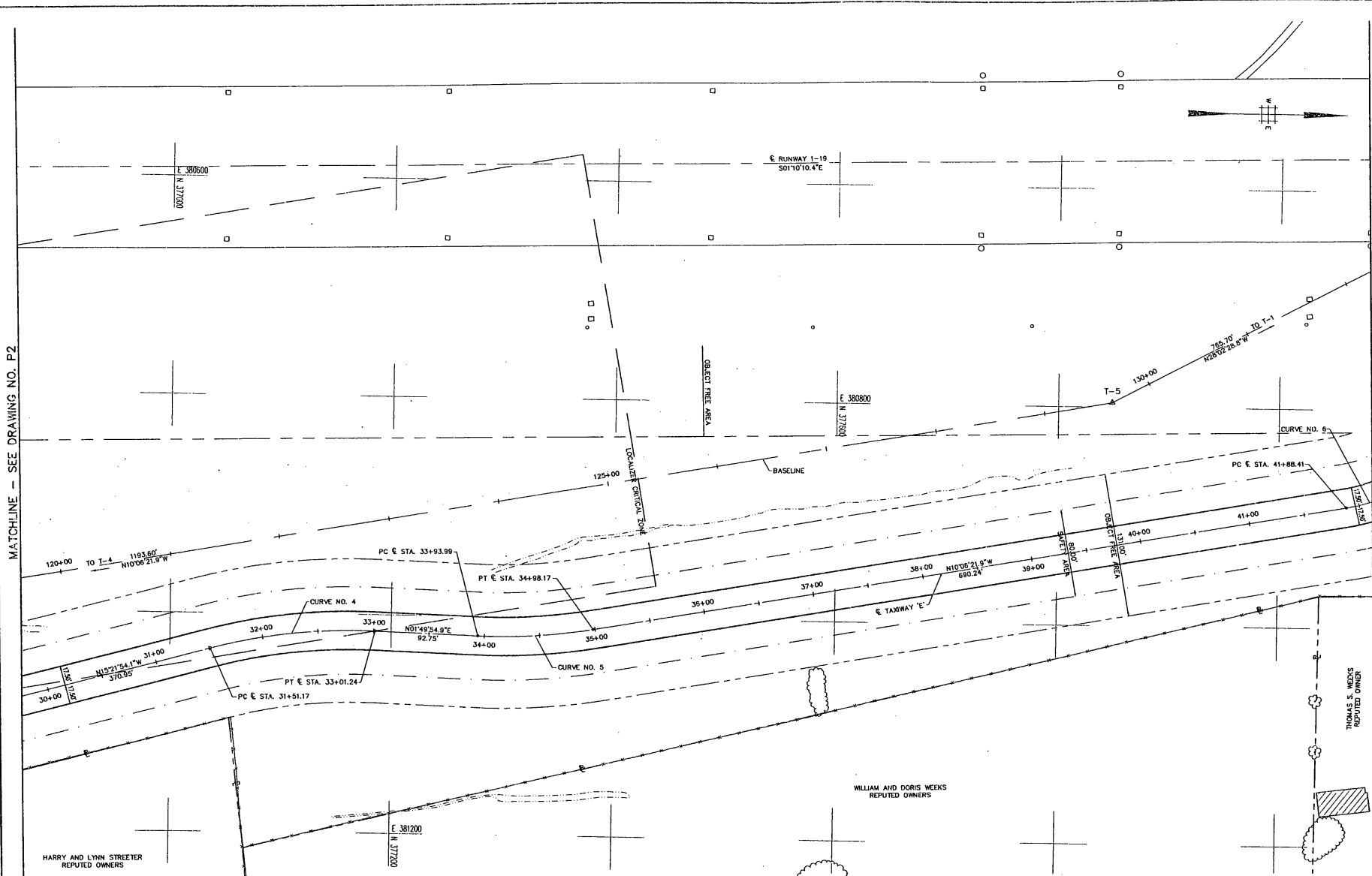
DESIGNED BY: F.S.
DRAWN BY: D.W.
CHECKED BY: L.C.

DRAWING NO. **P2**

SHEET 8 OF 11

MATCHLINE - SEE DRAWING NO. P2

MATCHLINE - SEE DRAWING NO. P4



CENTERLINE CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	DELTA
4	500.00'	150.07'	75.80'	171°149.0"
5	500.00'	104.18'	52.28'	113°56'18.8"
6	150.00'	38.71'	19.40'	144°06'2"

CENTERLINE COORDINATE TABLE

CURVE	STATION	POINT	NORTH	EAST	STATION	OFFSET
4	31+51.17	PC4	377036.829	381032.347	121+21.56	20.54' RT.
	33+01.24	PT4	377185.287	381014.931	122+70.82	99.25' RT.
5	33+93.89	PCS	377277.992	381017.916	123+61.56	118.43' RT.
	34+98.17	PT5	377381.711	381010.414	124+64.99	129.25' RT.
6	41+06.41	PC6	377061.244	380880.297	131+05.05	182.41' RT.



RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E
SITE PLAN

PROJECT NO. 7804

Envirowdyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

DATE: AUG. 23, 1993
SCALE: 1" = 40'

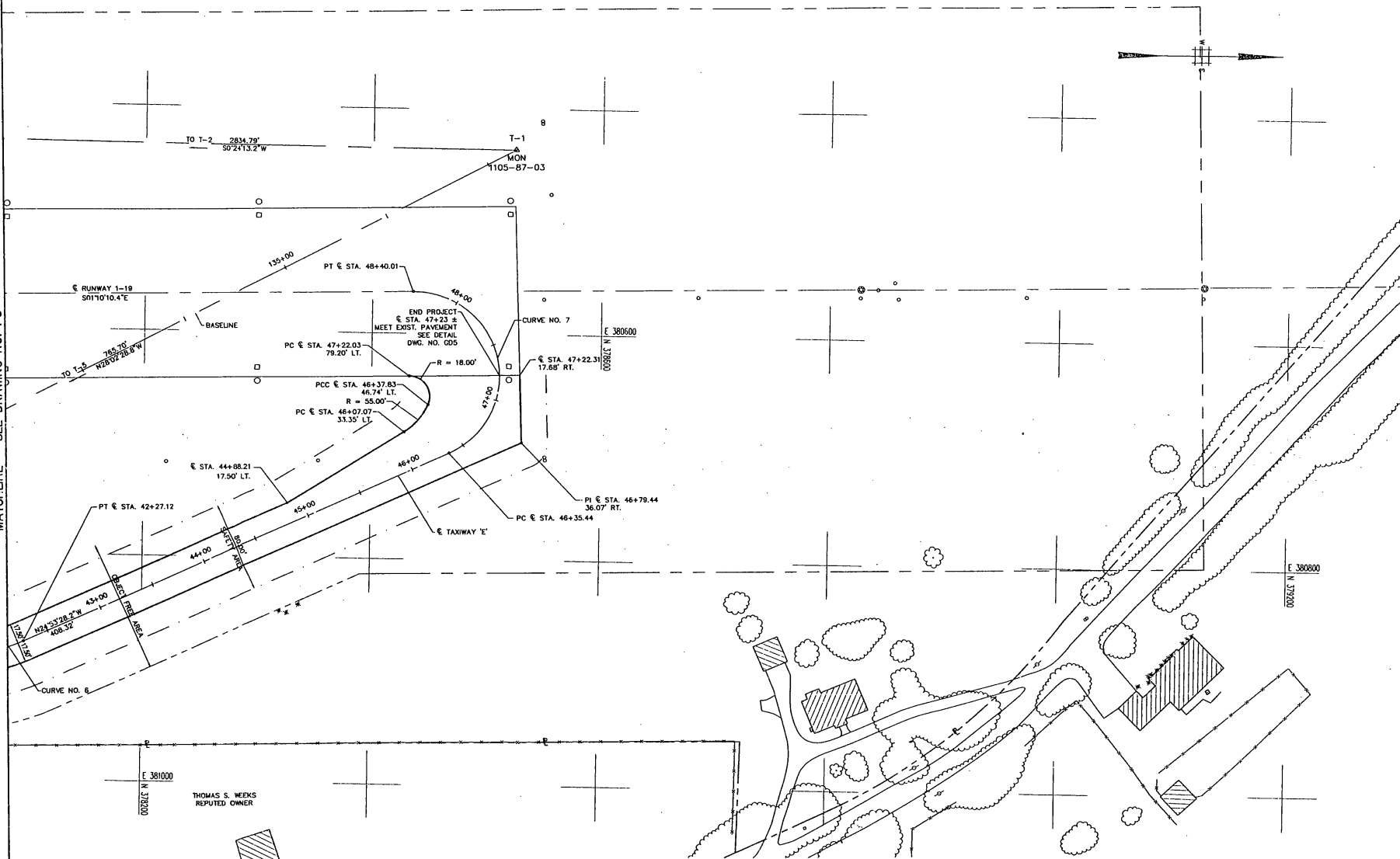
DRAWN BY: D.W.
CHECKED BY: L.S.

REVISION

P3

SHEET 9 OF 77

MATCHLINE - SEE DRAWING NO. P3



THOMAS S. WICKS
REPUTED OWNER

CENTERLINE CURVE DATA				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
6	150.00'	38.71'	19.46'	14°47'06.2"
7	75.00'	204.57'	357.11'	156°16'42.2"

CENTERLINE COORDINATE TABLE						
CURVE	STATION	POINT	NORTH	EAST	STATION	OFFSET
6	42+27.12	PT6	378098.057	380877.690	134+44.00	189.48' RT.
7	46+35.44	PC7	378468.448	380705.830	135+51.70	211.92' RT.
	48+40.01	PT7	378435.350	380762.812	135+58.72	70.13' RT.

40' 0 40' 80'

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E
SITE PLAN

PROJECT NO.
7804

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

DATE: AUG. 23, 1993
SCALE: 1" = 40'

DESIGNED BY: F.S.
DRAWN BY: D.W.
CHECKED BY: L.G.

SEAL

[Signature]

DATE

BY

APP.

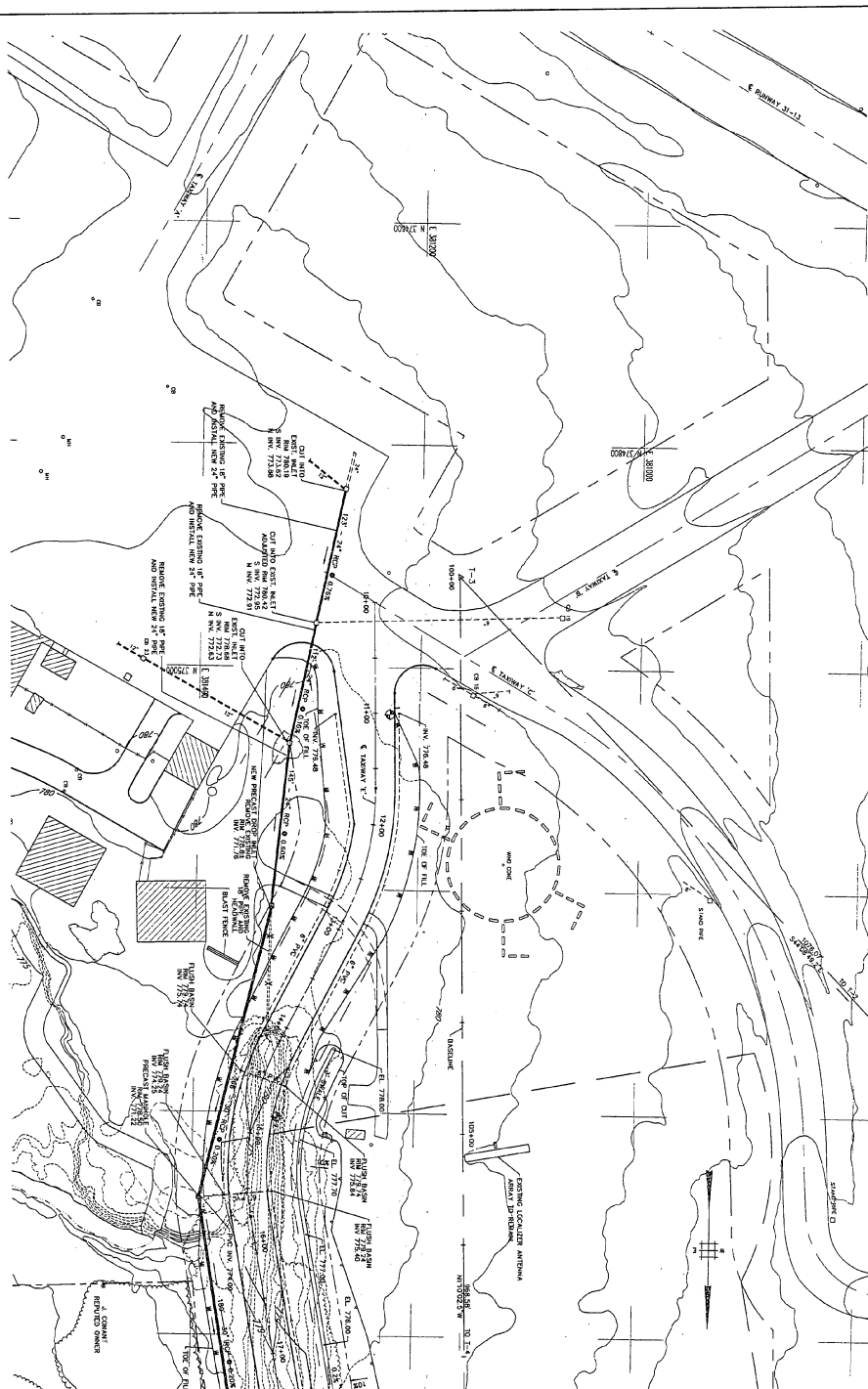
BY

REVISION

DESCRIPTION

DRAWING NO.
P4

SHEET 10 OF 22



MATCHLINE - SEE DRAWING NO. GD2

NOTE:

1. ALL P.E. UNDERBRAYS ARE REPRODUCED EXCEPT FOR TRANSVERSE CORNER P.E.
2. FOR TABLE OF UNDERBRAYS, SEE DWG. NO. 500, THIS SET.
3. FOR PROPOSED ELEVATIONS, SEE DWG. NO. 500, THIS SET.
4. FOR PROPOSED PAVEMENT ELEVATIONS FROM STA. 10+20 TO STA. 12+50, SEE DWG. NO. 503.

SHEET 11 OF 22

GDI

DRAWING NO.

**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

TAXIWAY E

GRADING AND DRAINAGE PLAN



Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

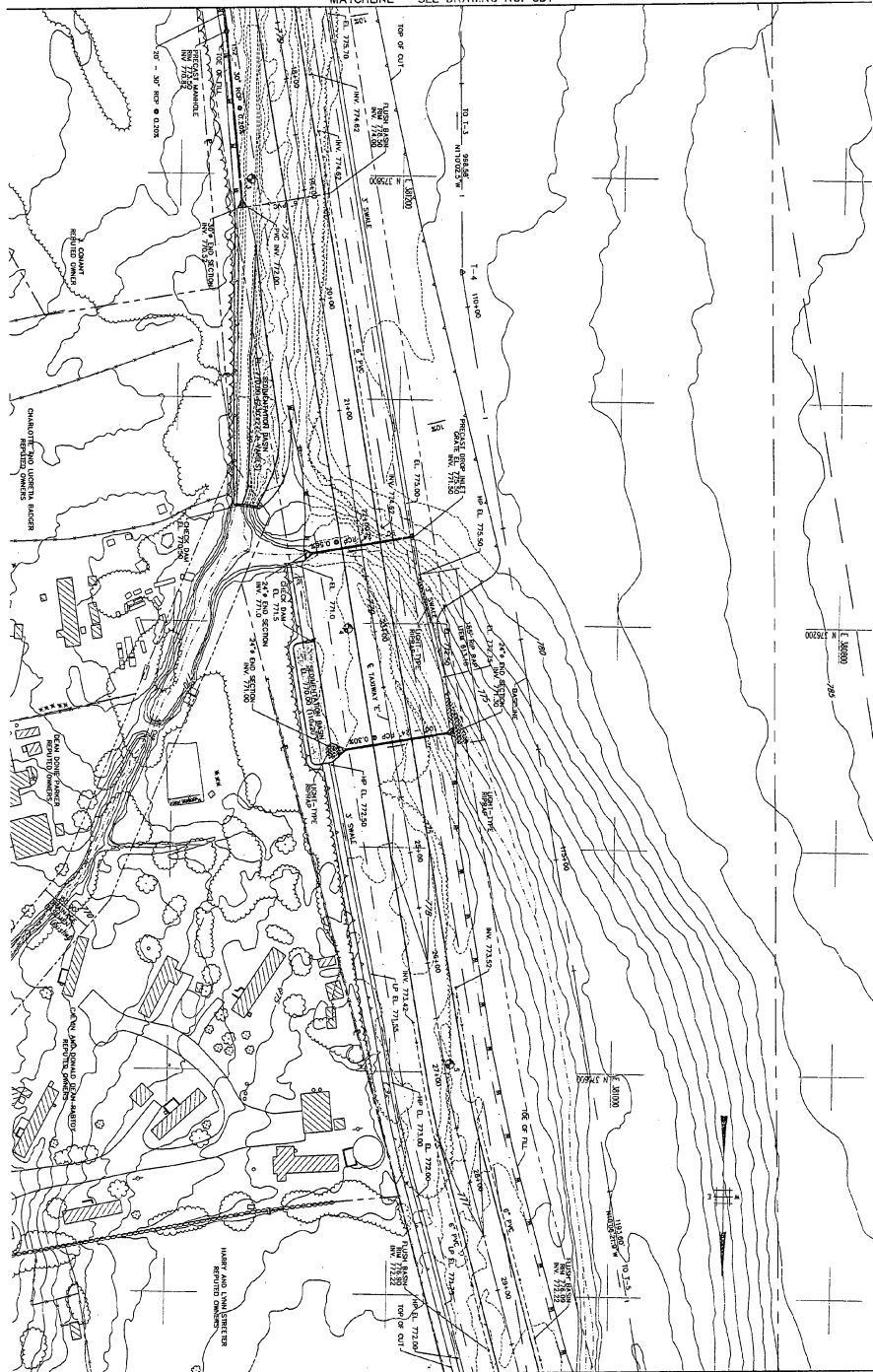
SCALE: 1" = 40' DATE: AUG. 23, 1993 DESIGNED BY: F.S. DRAWN BY: D.W. CHECKED BY: L.G.

PROJECT NO.
7804

REVISION DESCRIPTION DATE

Handwritten signature

MATCHLINE - SEE DRAWING NO. GD1



MATCHLINE - SEE DRAWING NO. GD3

- NOTES:
1. ALL P.C. UNDERSTANDING ARE REPRODUCED EXCEPT FOR TRANSVERSE CURVED P.C.
 2. FOR TABLE OF UNDERSTANDING, SEE SPEC. NO. 101.
 3. FOR DIMENSION, DIMENSIONAL DETAILS, SEE SPEC. NO. 101.

0' 20' 40'

SECTION 17 OF 17

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E

GRADING AND DRAINAGE PLAN



Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 40'

DATE: AUG. 23, 1993

DESIGNED BY: F.S.
DRAWN BY: D.W.
CHECKED BY: L.G.

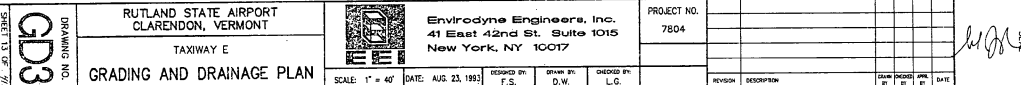
PROJECT NO.
7804

REVISION	DESCRIPTION

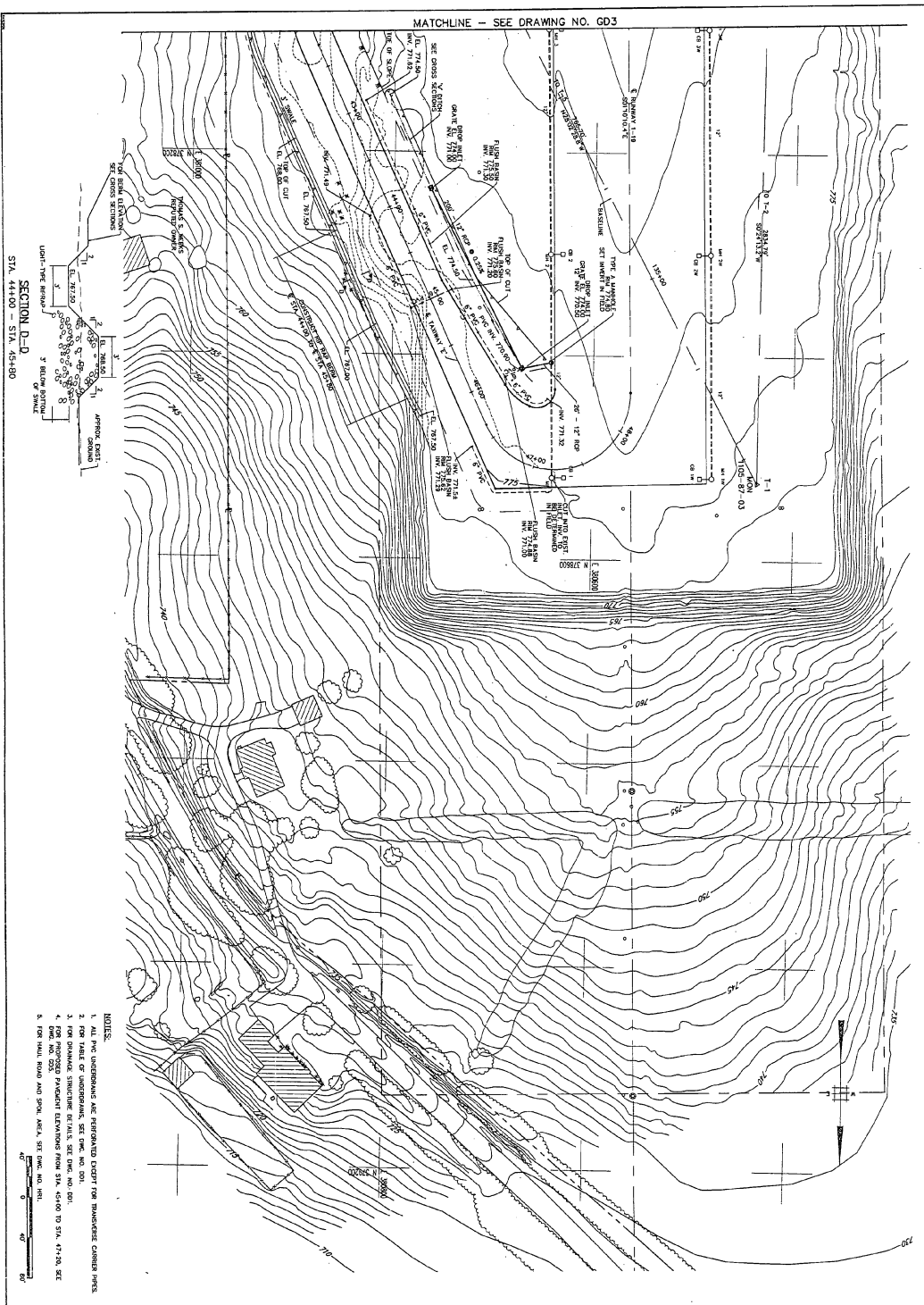
DATE: AUG. 23, 1993

54

MATCHLINE - SEE DRAWING NO. GD4

[illegible]

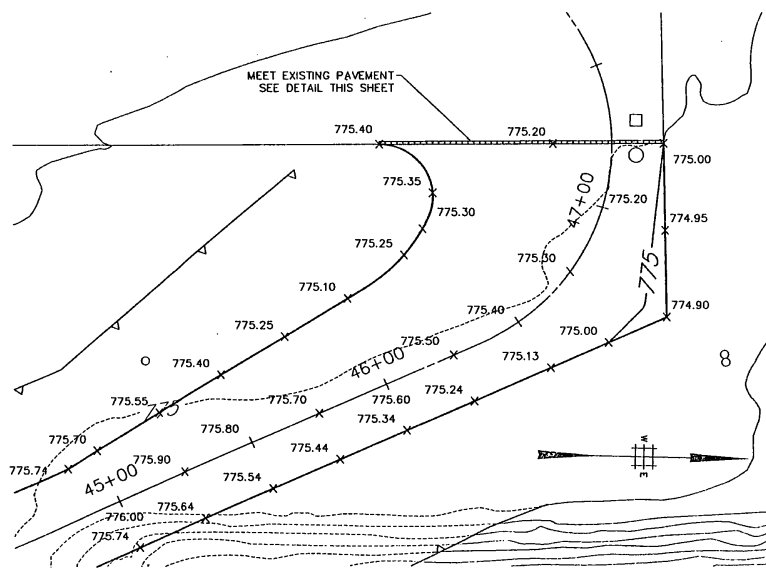
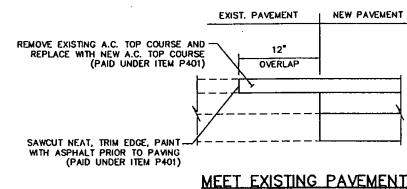
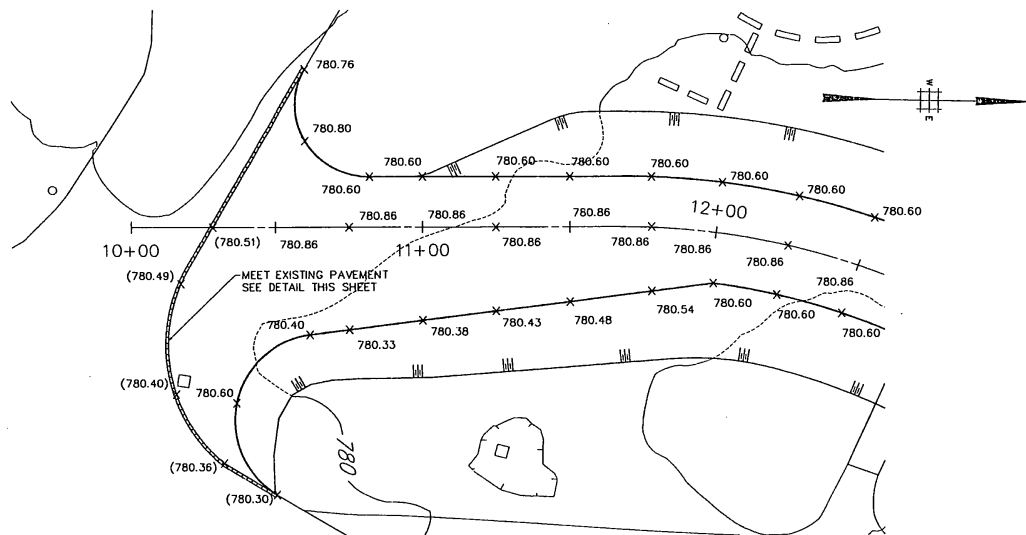
07-10-1993 10:10:10 07-10-1993 10:10:10 07-10-1993 10:10:10



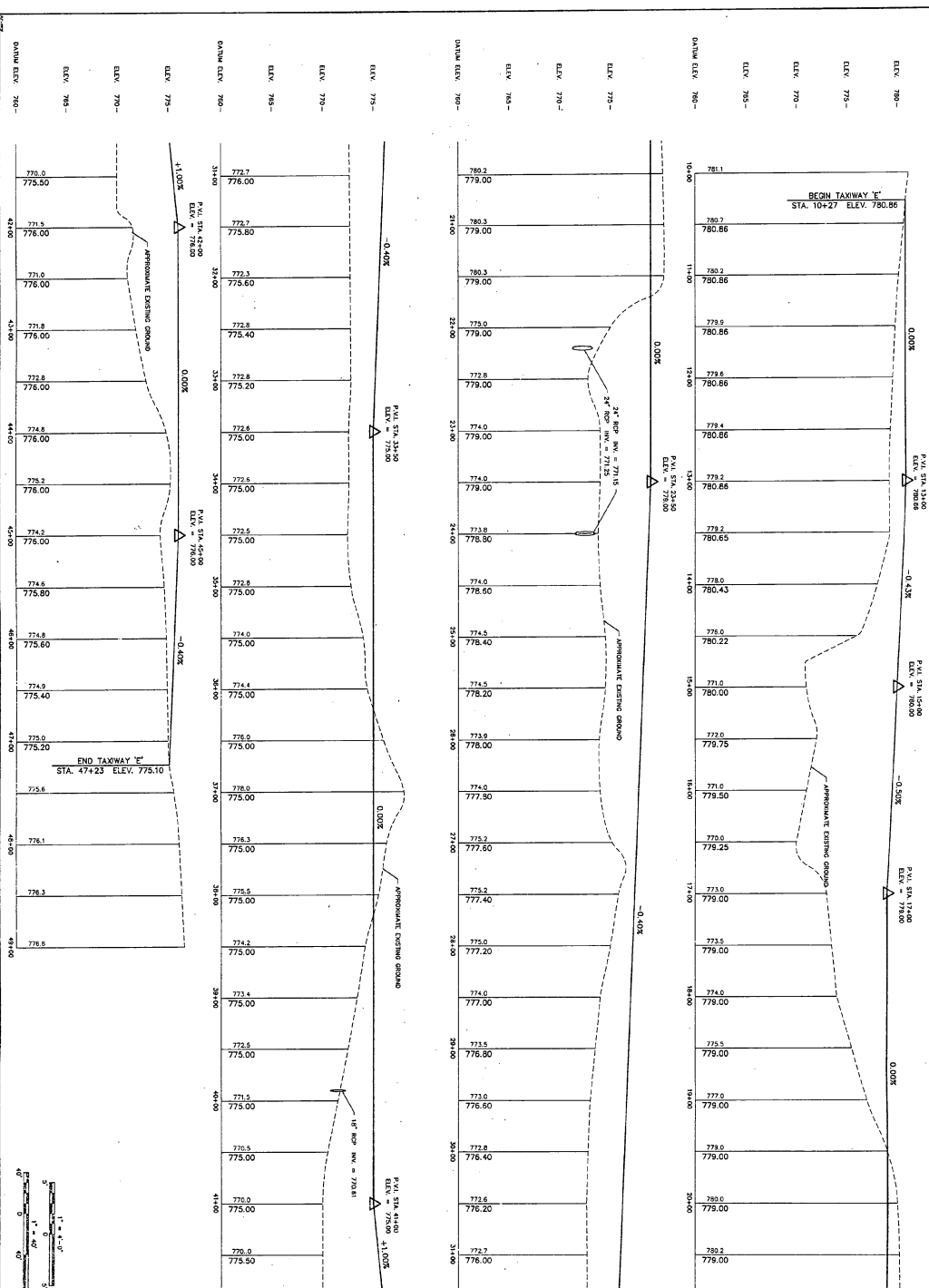
SECTION D-D
STA. 45+00 - STA. 45+80

- NOTES:
1. ALL THE UNDERGROUND ARE RECORDED EXCEPT FOR THE UNDERGROUND CABLES.
 2. THE PROPOSED GRADE IS BASED ON THE EXISTING GRADE.
 3. THE PROPOSED DRAINAGE IS BASED ON THE EXISTING DRAINAGE.
 4. THE PROPOSED PAVEMENT ELEVATIONS FROM STA. 45+00 TO STA. 47+28. SEE PLAN SHEET.
 5. THE PROPOSED PAVEMENT ELEVATIONS FROM STA. 47+28 TO STA. 49+00. SEE PLAN SHEET.

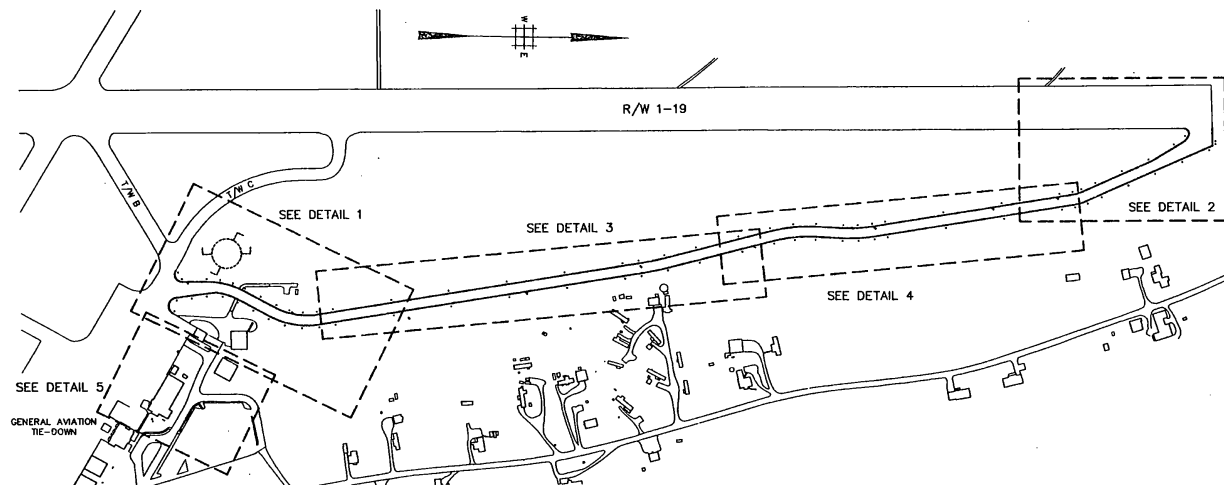
SHEET 11 OF 12	DRAWING NO. GD4	RUTLAND STATE AIRPORT CLARENDON, VERMONT	TAXIWAY E	GRADING AND DRAINAGE PLAN	Envirotech Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017	PROJECT NO. 7804	SCALE: 1" = 40'		DATE: AUG. 23, 1993		DESIGNED BY: F.S.		DRAWN BY: D.W.		CHECKED BY: L.G.		REVISION		CONSTRUCTION		DATE	
							1" = 40'		AUG. 23, 1993		F.S.		D.W.		L.G.							



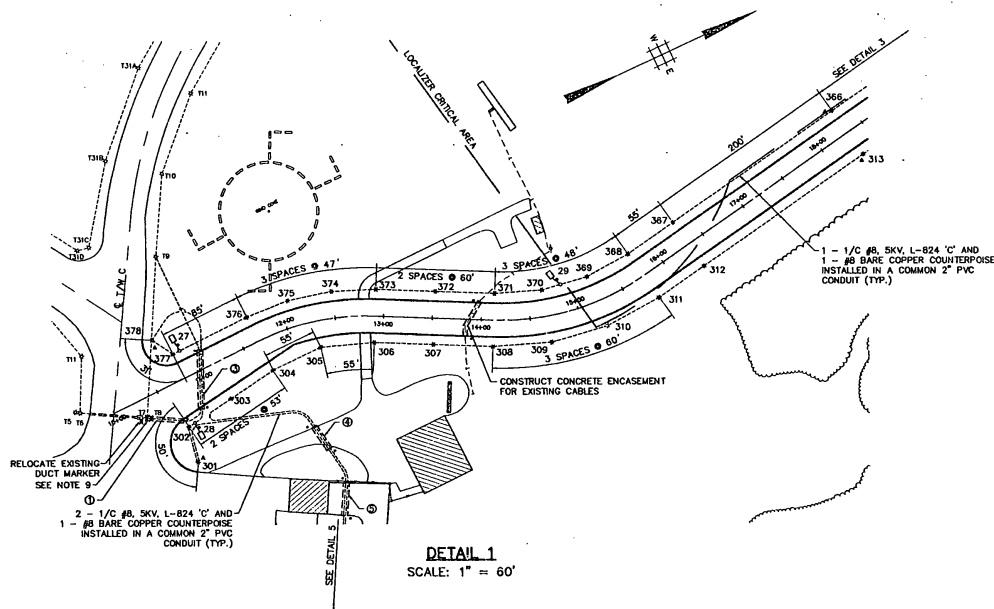
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017	PROJECT NO. 7804	SHEET NO. 15 OF 41
		DATE AUG. 23, 1993	SCALE 1" = 20'
	Rutland State Airport Clarendon, Vermont	TAXIWAY E GRADING DETAILS	DRAWING NO. GD5



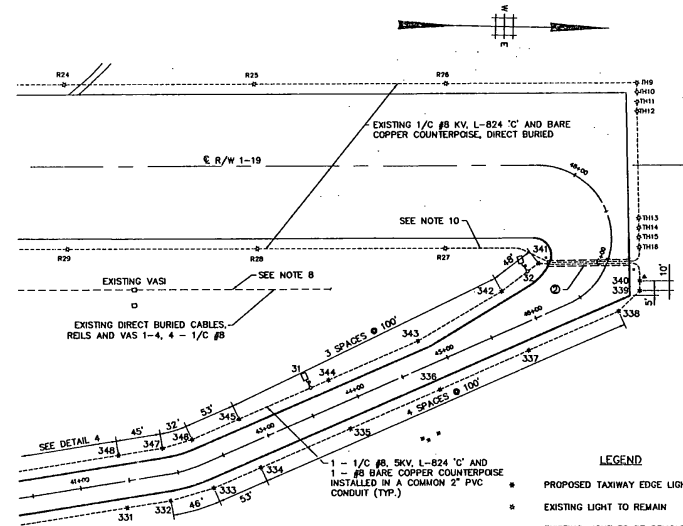
SHEET 15 OF 17 PR1 DRAWING NO.	RUTLAND STATE AIRPORT CLARENDON, VERMONT		PROJECT NO. 7804		REVISION DESCRIPTION DATE
	TAXIWAY C PROPOSED C PROFILE		Envirotech Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		
	SCALE: 1" = 40' HORIZ 1" = 4' VERT		DATE: AUG 23, 1993 DESIGNED BY: F.S. DRAWN BY: D.W. CHECKED BY: L.C.		



GENERAL LIGHTING PLAN
SCALE: 1" = 200'



DETAIL 1
SCALE: 1" = 60'



DETAIL 2
SCALE: 1" = 60'

GENERAL NOTES

1. T/W EDGE LIGHTS TO BE BASE MOUNTED UNITS. 24" IN HEIGHT, BLUE FIXTURE.
2. LAMP FIXTURE TO BE BLUE AND OF MEDIUM INTENSITY (6.6A, 30W).
3. ELECTRIC CIRCUITRY TO BE IN SERIES.
4. REFER TO VAOT STANDARD DRAWING AP-2 FOR BASE MOUNTED UNIT DETAILS, AND, CABLE AND SPLICE MARKERS. REFER TO VAOT STANDARD DRAWING AP-3 FOR DUCT BANK DETAILS.
5. REFER TO DRAWING L3 FOR TRENCH DETAILS.
6. MAXIMUM SPACING OF LIGHTS TO BE 200' O.C. DISTANCE FROM TAXIWAY PAVEMENT EDGE TO LIGHTS, 10'-0".
7. EXISTING R/W EDGE LIGHTS AND VASI TO REMAIN.
8. EXISTING RELS CABLES TO BE INSTALLED IN A NEW 4-WAY DUCT UNDER TAXIWAY AS DIRECTED BY THE ENGINEER.
9. REMOVE EXISTING TAXIWAY LIGHTS T7 AND T8. REMOVE EXISTING WIRING FROM TAXIWAY LIGHT T6 TO LIGHT T7 AND ABANDON EXISTING WIRING FROM LIGHT T8 TO LIGHT T9. PROVIDE NEW 1/C #8, 5KV, L824 'C' CABLE AND #8 BARE COUNTERPOISE FROM LIGHT T6 TO LIGHT T9 VIA DUCT BANKS 1 AND 3, AND SPLICE AT LIGHTS T6 AND T9. CONNECT NEW TAXIWAY LIGHTS 301 THRU 378 CONSECUTIVELY IN SERIES.
10. ABANDON EXISTING WIRING FROM RUNWAY LIGHTS R27 TO THRESHOLD LIGHT T16. PROVIDE NEW 1/C #8, 5KV, L824 'C' CABLE AND #8 BARE COUNTERPOISE FROM LIGHT R27 TO THRESHOLD LIGHT T16 VIA A NEW 4-WAY DUCTBANK AND SPLICE AT LIGHTS R27 AND T16.
11. EXACT LOCATIONS OF ALL DUCT BANKS AND CABLE CONDUITS MUST BE APPROVED IN ADVANCE BY THE VAOT ELECTRICIAN CONTRACTOR/TOCONTACT RESIDENT ENGINEER.

LEGEND

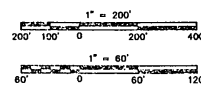
- * PROPOSED TAXIWAY EDGE LIGHT
- * EXISTING LIGHT TO REMAIN
- * EXISTING LIGHT TO BE REMOVED OR RELOCATED
- * EXISTING DUCT MARKER TO REMAIN
- * EXISTING DUCT MARKER TO BE REMOVED OR RELOCATED
- ✕ TAXIWAY SIGN AND LIGHTING CONNECTION
- ▲ PROPOSED 5/8" x 6" COPPERCLAD GROUND ROD
- PROPOSED DUCT WITH CONDUIT AND MARKERS
- ① DUCT DESIGNATION - SEE DUCT SCHEDULE

CROSS REFERENCES

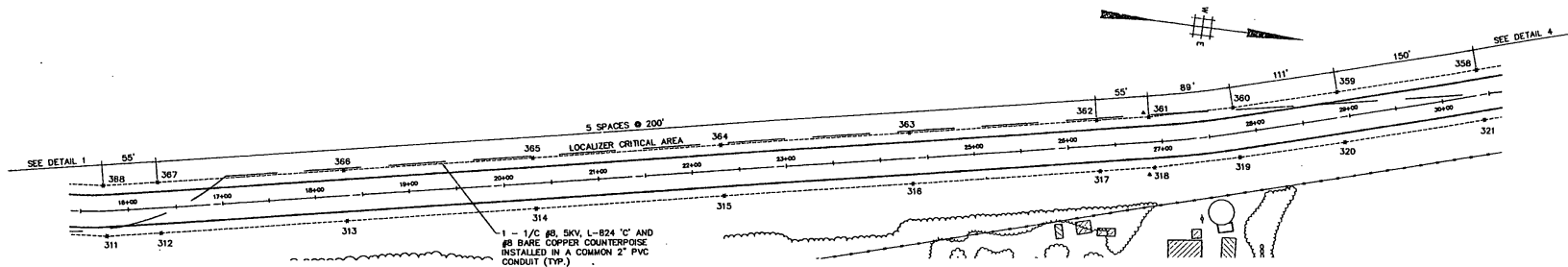
DETAILS 3, 4, 5 DRAWING NO. L2
SIGN PLANS DRAWING NOS. S1, S2

DUCT SCHEDULE

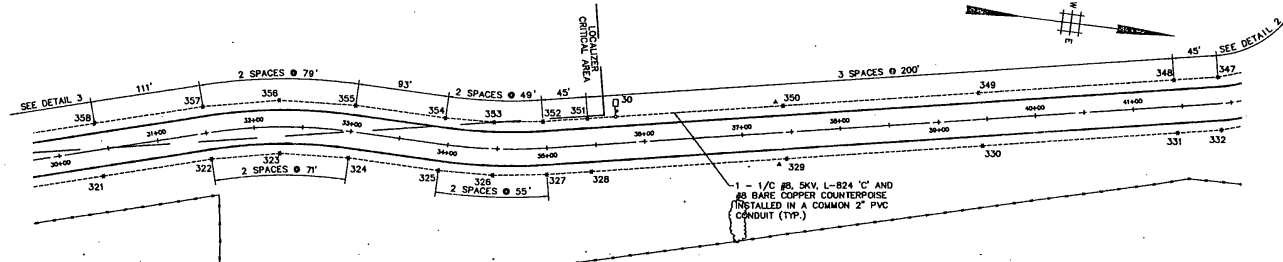
- ① 2 WAY 4" CONCRETE ENCASED 48 L.F. EXTENSION
- ② 4 WAY 4" CONCRETE ENCASED, 78 L.F.
- ③ 4 WAY 4" CONCRETE ENCASED, 61 L.F.
- ④ 4 WAY 4" CONCRETE ENCASED, 28 L.F.
- ⑤ 4 WAY 4" CONCRETE ENCASED, 35 L.F.
- ⑥ 4 WAY 4" CONCRETE ENCASED, 24 L.F.



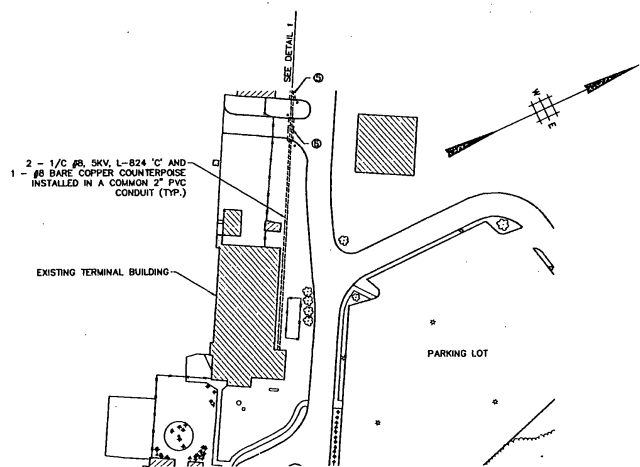
SEAL 	
PROJECT NO.	7904
DESIGNED BY	L.C.
CHECKED BY	D.W.
DATE	AUG. 23, 1983
SCALE AS SHOWN	F.S.
Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017	
RUTLAND STATE AIRPORT CLARENDON, VERMONT TAXIWAY E	
LIGHTING PLAN AND DETAILS	
DRAWING NO. L1	
SHEET 17 OF 27	



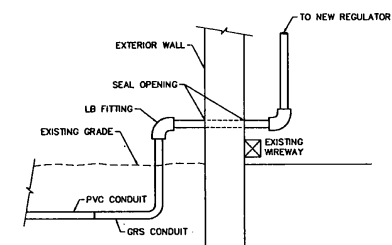
DETAIL 3
SCALE: 1" = 60'



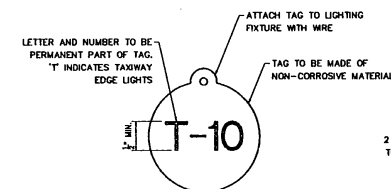
DETAIL 4
SCALE: 1" = 60'



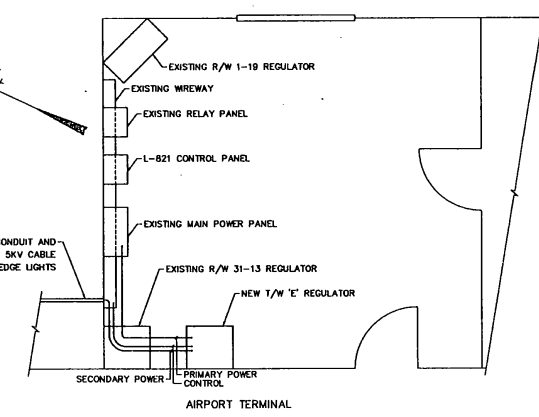
DETAIL 5
SCALE: 1" = 60'



ELECTRICAL ROOM CONDUIT ENTRANCE
N.T.S.



LIGHT IDENTIFICATION TAG
N.T.S.



ELECTRICAL ROOM LAYOUT
N.T.S.

- DUCT SCHEDULE**
- ④ 4 WAY 4"Ø CONCRETE ENCASED, 35 L.F.
 - ④ 4 WAY 4"Ø CONCRETE ENCASED, 24 L.F.

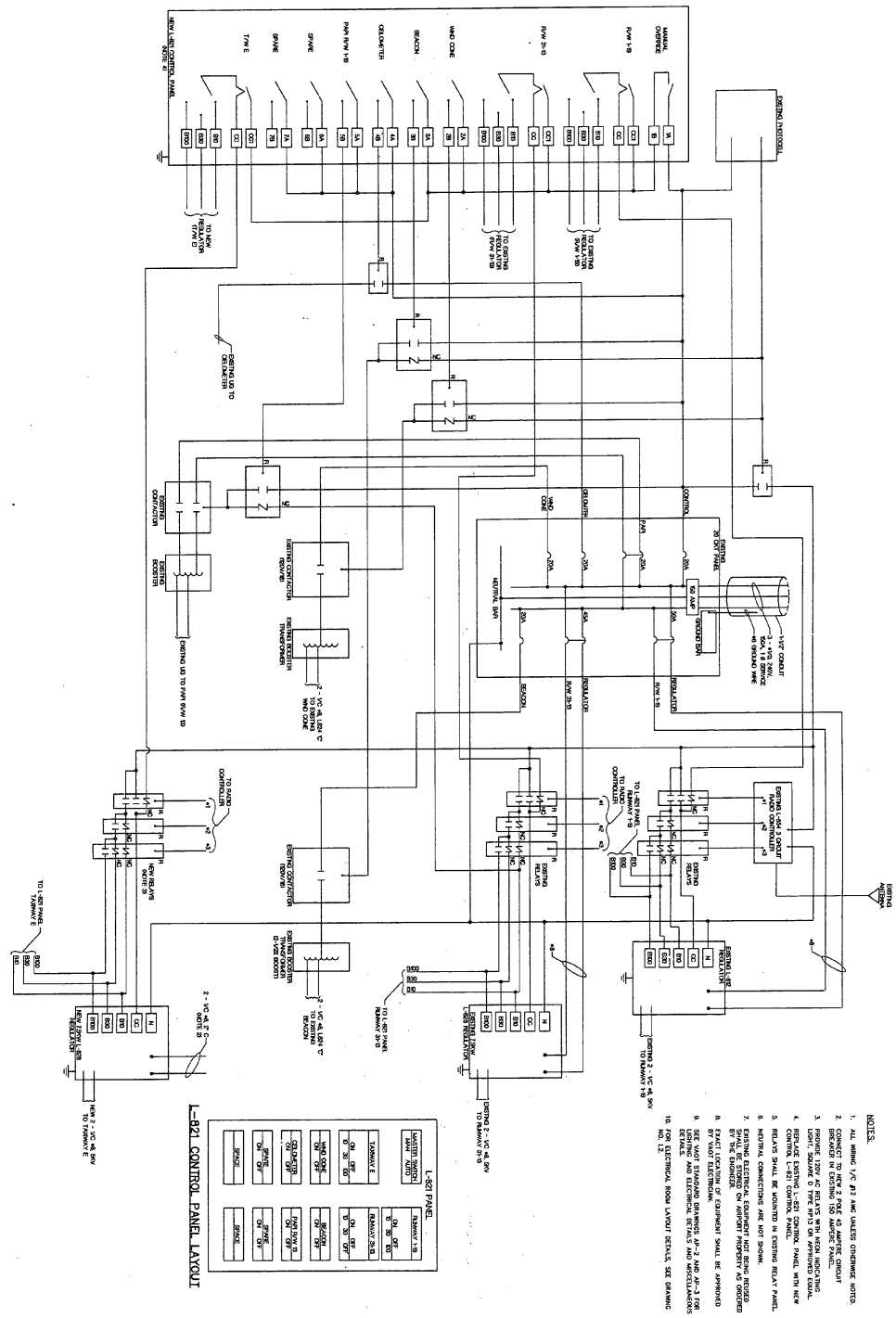
CROSS REFERENCES

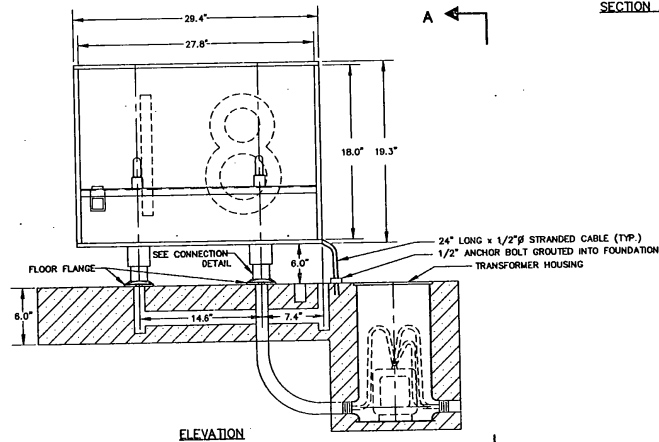
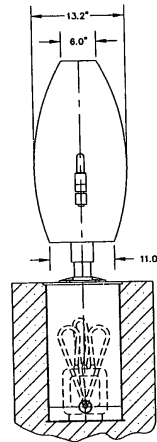
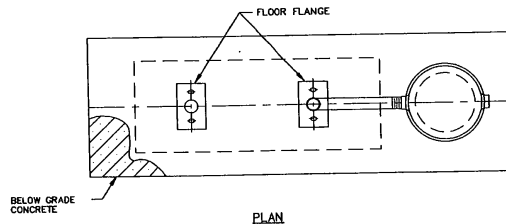
GENERAL LIGHTING PLAN
DETAILS 1, 2 AND 3
LIGHTING NOTES AND LEGEND
SIGN PLANS

DRAWING NO. L1
DRAWING NO. L1
DRAWING NOS. 51, 52



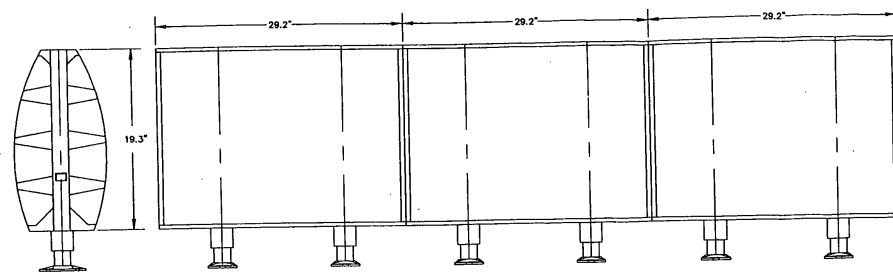
		PROJECT NO. 7804	DRAWN BY D.W.	CHECKED BY F.S.	DATE AUG. 23, 1983
Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		RUTLAND STATE AIRPORT CLARENDON, VERMONT TAXIWAY E LIGHTING DETAILS			
SHEET 18 OF 47		DRAWING NO. L2			



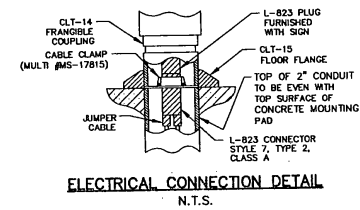


SINGLE PANEL TAXIWAY SIGN
N.T.S.

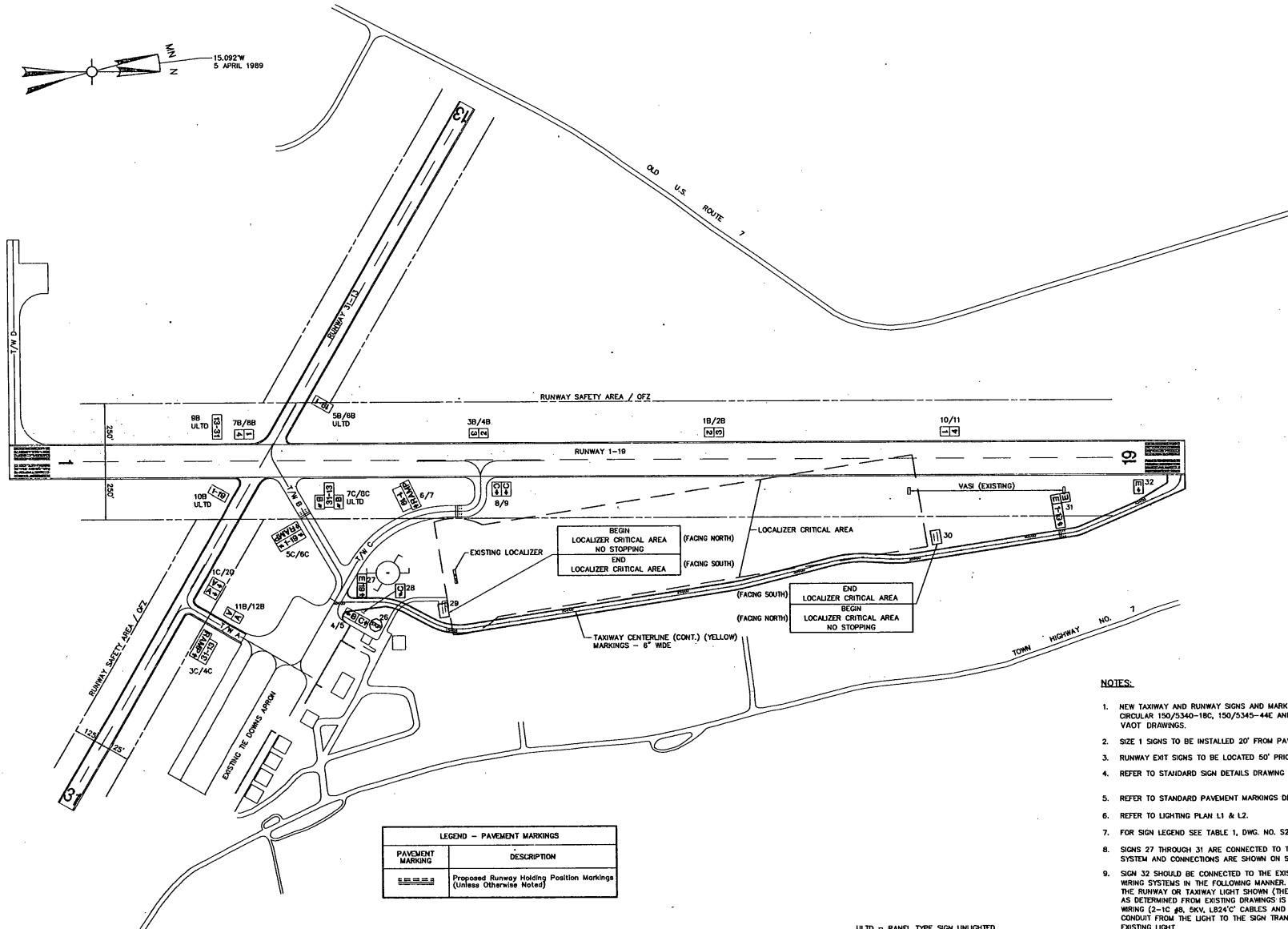
NOTE:
ALL TAXIWAY SIGNS ARE LUMACURVE TAXIWAY GUIDANCE
SIGNS OR APPROVED EQUAL.



MULTIPLE PANEL TAXIWAY SIGN
N.T.S.



RUTLAND STATE AIRPORT CLARENDON, VERMONT		DRAWING NO. L4		SHEET 20 OF 77	
TAXIWAY E		ELECTRICAL DETAILS		DATE: AUG. 23, 1993	
Envirosyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		PROJECT NO. 7804		DRAWN BY D.W.	
CHECKED BY F.S.		CHECKED BY L.G.		DATE: AUG. 23, 1993	
NOT TO SCALE		NOT TO SCALE		NOT TO SCALE	
SEAL		DESCRIPTION		DATE	



LEGEND - PAVEMENT MARKINGS	
PAVEMENT MARKING	DESCRIPTION
	Proposed Runway Holding Position Markings (Unless Otherwise Noted)

ULTD = PANEL TYPE SIGN UNLIGHTED

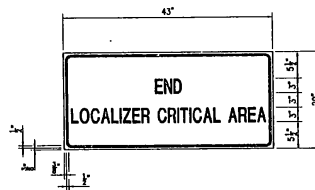
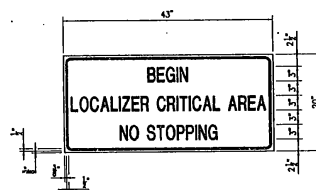
NOTES:

1. NEW TAXIWAY AND RUNWAY SIGNS AND MARKINGS ARE TO CONFORM TO FAA ADVISORY CIRCULAR 150/5340-18C, 150/5345-44E AND 150/5340-1F. SEE ALSO STANDARD VAOT DRAWINGS.
2. SIZE 1 SIGNS TO BE INSTALLED 20' FROM PAVEMENT EDGE.
3. RUNWAY EXIT SIGNS TO BE LOCATED 50' PRIOR TO TURN ONTO TAXIWAY.
4. REFER TO STANDARD SIGN DETAILS DRAWING NO. AP-12 (STD VAOT)
5. REFER TO STANDARD PAVEMENT MARKINGS DRAWING NOS. AP10 & AP11 (STD VAOT)
6. REFER TO LIGHTING PLAN L1 & L2.
7. FOR SIGN LEGEND SEE TABLE 1, DWG. NO. S2.
8. SIGNS 27 THROUGH 31 ARE CONNECTED TO THE NEW TAXIWAY LIGHTING WIRING SYSTEM AND CONNECTIONS ARE SHOWN ON SHEETS 7 AND 8.
9. SIGN 32 SHOULD BE CONNECTED TO THE EXISTING RUNWAY AND TAXIWAY LIGHTING WIRING SYSTEMS IN THE FOLLOWING MANNER: INTERCEPT THE EXISTING WIRING AT THE RUNWAY OR TAXIWAY LIGHT SHOWN (THE CLOSEST RUNWAY OR TAXIWAY LIGHT AS DETERMINED FROM EXISTING DRAWINGS IS SHOWN ON THE PLAN). PROVIDE NEW WIRING (2-1C #8, SHV, 1824" CABLES AND #8 BARE COUNTERPOISE) IN A 2" PVC CONDUIT FROM THE LIGHT TO THE SIGN TRANSFORMER. SPLICE WIRING AT THE EXISTING LIGHT.

RUTLAND STATE AIRPORT CLARENDON, VERMONT TAXIWAY E SIGNING PLAN		PROJECT NO. 7804		CHECKED BY: L.G.	
		DRAWN BY: A.F.B.		DATE: AUG. 23, 1993	
SCALE: 1" = 200'		DATE: AUG. 23, 1993		DRAWING NO. S1	
SHEET 21 OF 47		ENVIRONMENTAL ENGINEERS, INC. 41 East 42nd St. Suite 1015 New York, NY 10017		SEAL 	

TABLE 1							
SIGN TYPE	ABBREVIATION	NAME	COLOR	INSCRIPTION	BACKGROUND	SYMBOL	POWERED BY
MANDATORY INSTRUCTION SIGN	HP	HOLD POSITION SIGN	WHITE	RED	1-19	L-85BR	1 240 VA
	ST	STOP	WHITE	RED	STOP	-	18"
	IS	INSTRUCTION SIGN	BLACK	YELLOW	TEXT		
LOCATION SIGN							
	TL	TAXIWAY LOCATION	YELLOW	BLACK	A	L-85BL	1 240 VA
DIRECTION SIGN	RE	EXIT	BLACK	YELLOW	-A	L-85BY	1 241 VA
	TD	TAXIWAY DIRECTION	BLACK	YELLOW	-B	L-85BY	1 241 VA

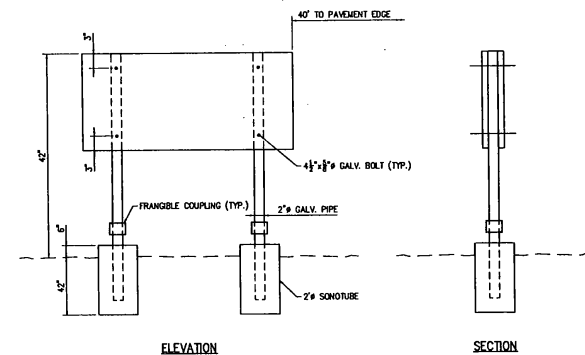
TABLE 2							
SIGN NO.	TYPE	LOCATION	TEXT	# PROPOSED MODULES	# EXISTING MODULES	TOTAL # MODULES	INSTRUCTIONS
26	ST		STOP	-	-	-	INSTALL (1) STOP SIGN PANEL (TRAFFIC TYPE) PER VDOT E-143
27	TL, TD		E - 19	2	0	2	INSTALL (1) LOCATION SIGN
28	TD		- C	1	0	1	INSTALL (1) TAXIWAY DIRECTION SIGN
29	IS		"TEXT"	1	0	1	INSTALL NEW INSTRUCTION SIGN "BEGIN LOCALIZER CRITICAL AREA NO STOPPING"
30	IS		"TEXT"	1	0	1	INSTALL NEW INSTRUCTION SIGN "END LOCALIZER CRITICAL AREA"
31	TL, HP		E 1-19	2	0	2	INSTALL LOCATION SIGN AND (1) HOLD POSITION SIGN
32	RE		EXIT	1	0	1	RUNWAY EXIT SIGN



LETTER WIDTH DIMENSIONS (ALL LETTERS 3" HIGH)

A,B,C = 1 1/4"
D,E,G,H,I,J,K,L,M,N,P,Q,R,S,T,U,V,W,X,Y,Z = 1 1/4"
LETTER SPACING = 1/4"
WORD SPACING = 1 1/4"

NOTE:
REFER TO SPECIAL PROVISIONS IN SPECIFICATION
FOR SIGNS 29 AND 30.



SEAL

[Signature]

DATE: _____

SCALE: N.T.S.

DATE: AUG 23, 1993

DESIGNED BY: F.S.

DRAWN BY: A.F.B.

CHECKED BY: L.C.

PROJECT NO. 7804

Envirotech Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

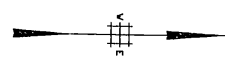
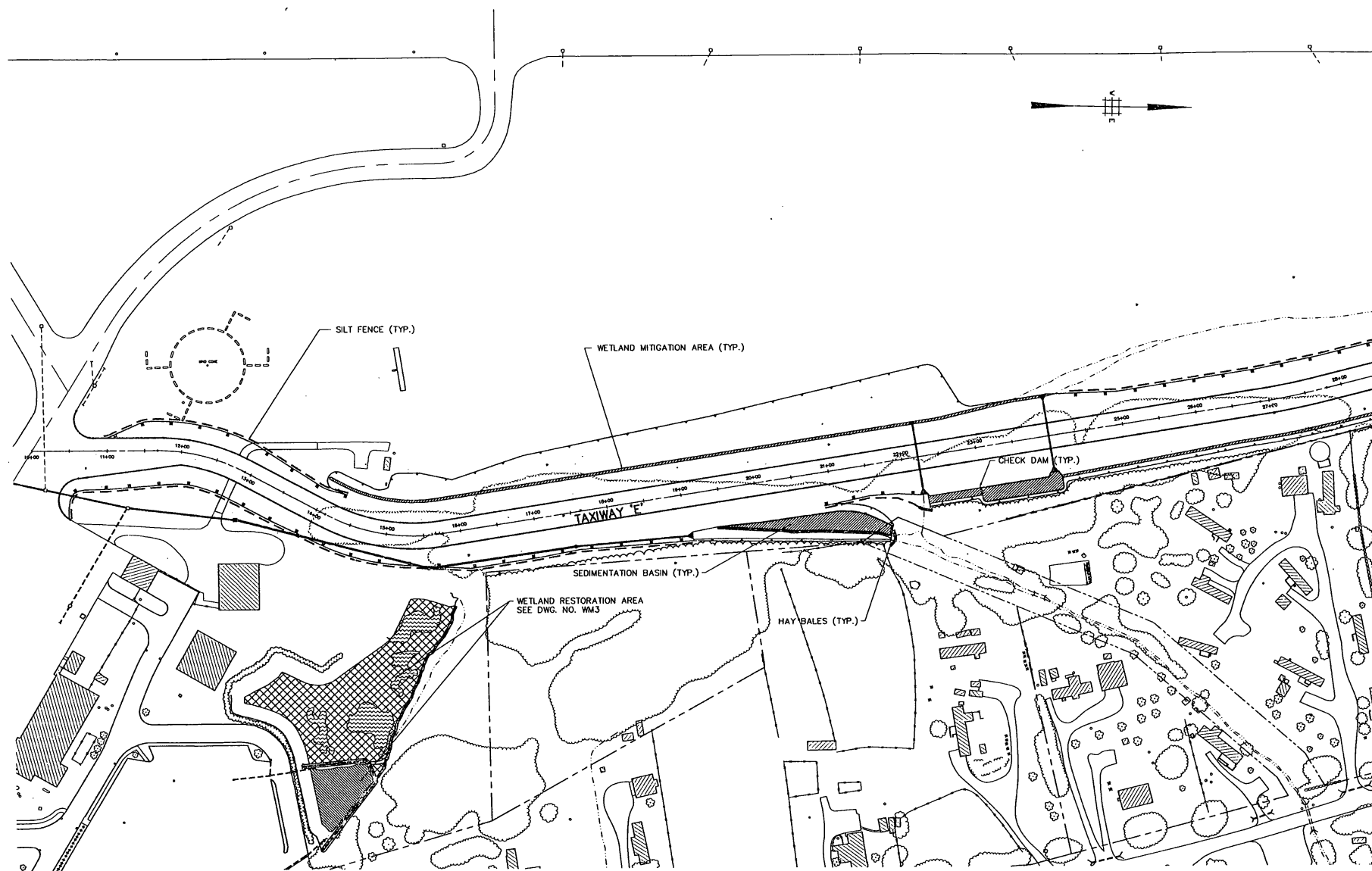
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E

SIGN TABLES AND DETAILS

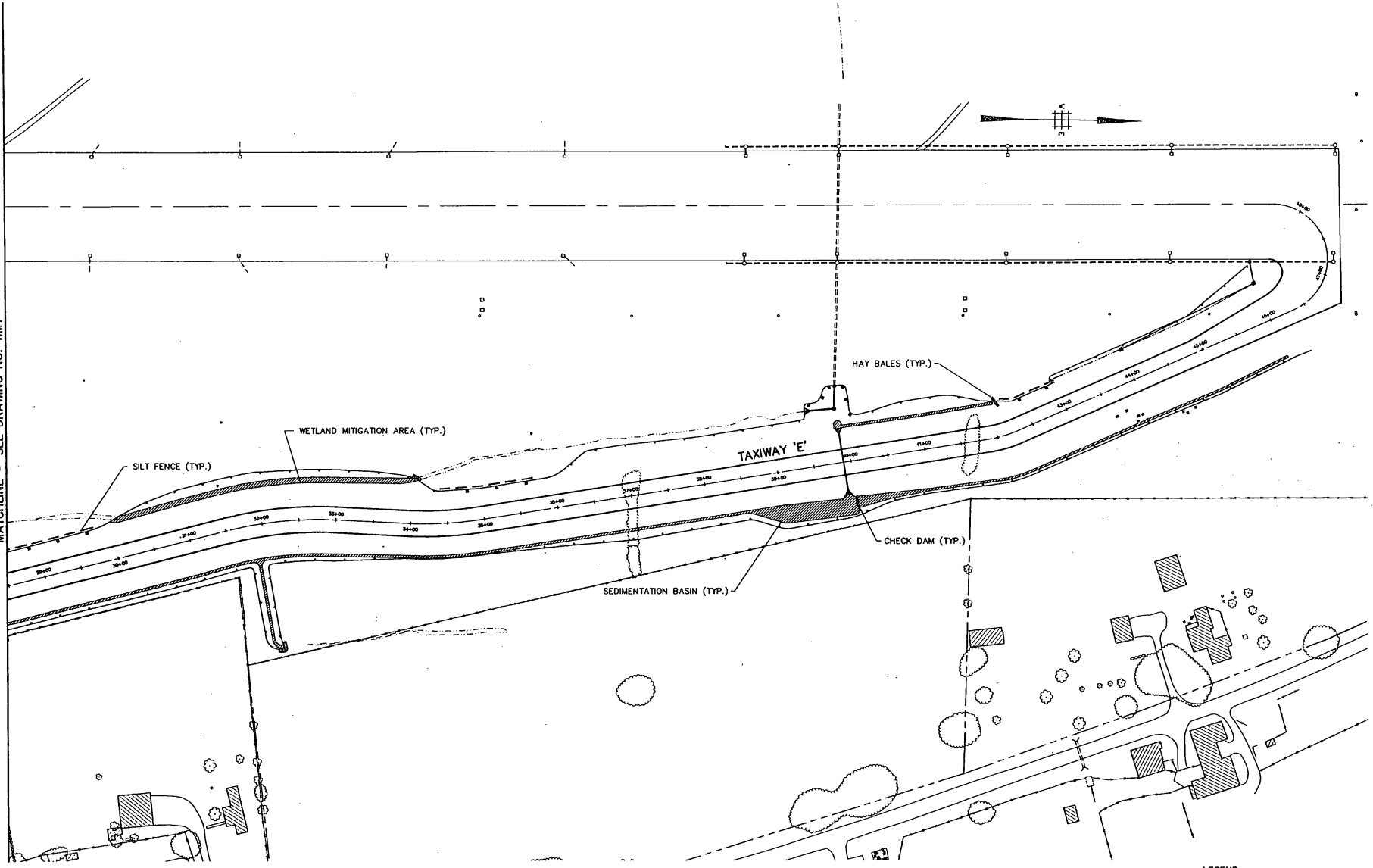
DRAWING NO. 52

SHEET 22 OF 44



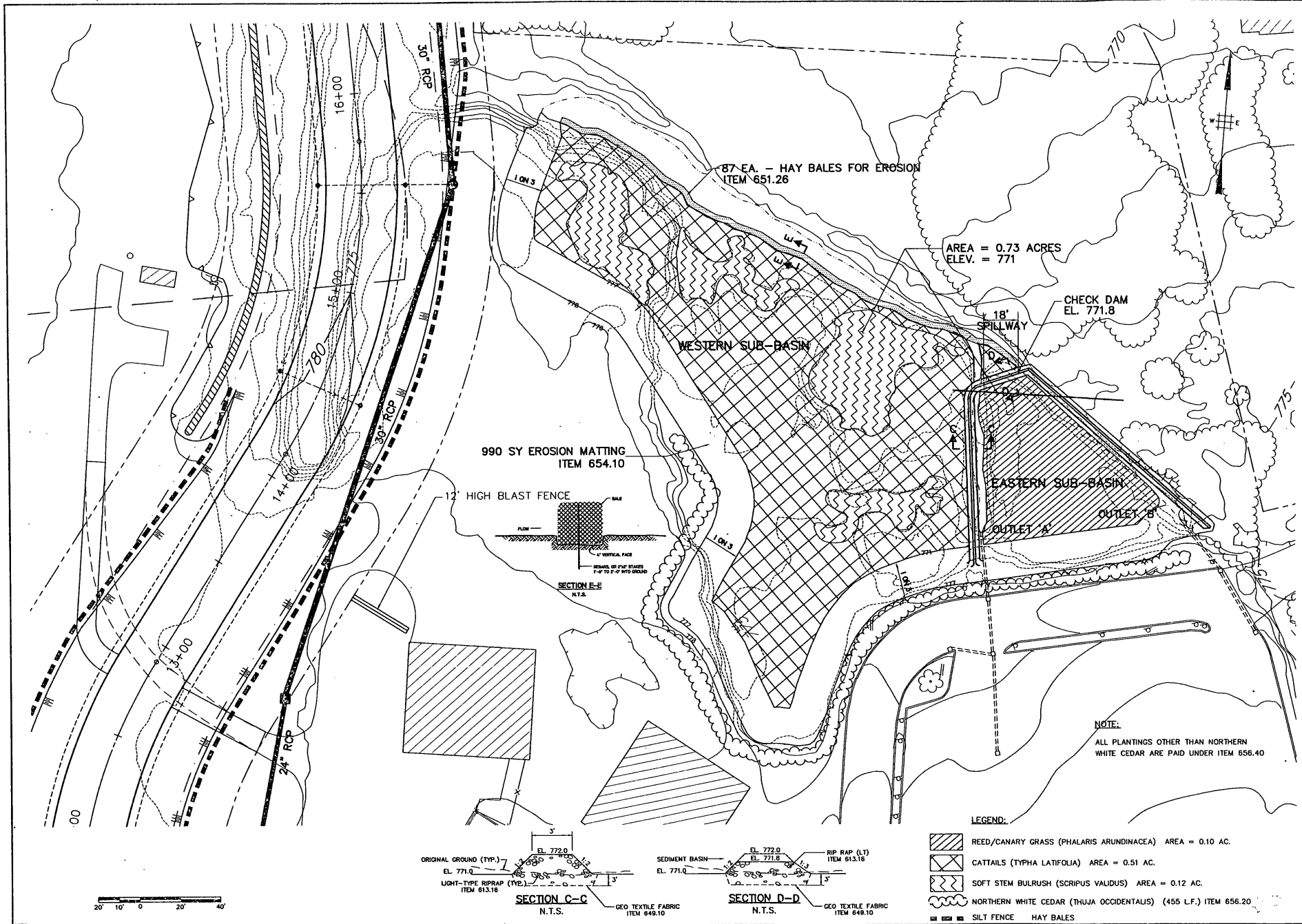
SEAL

MATCHLINE - SEE DRAWING NO. WM1

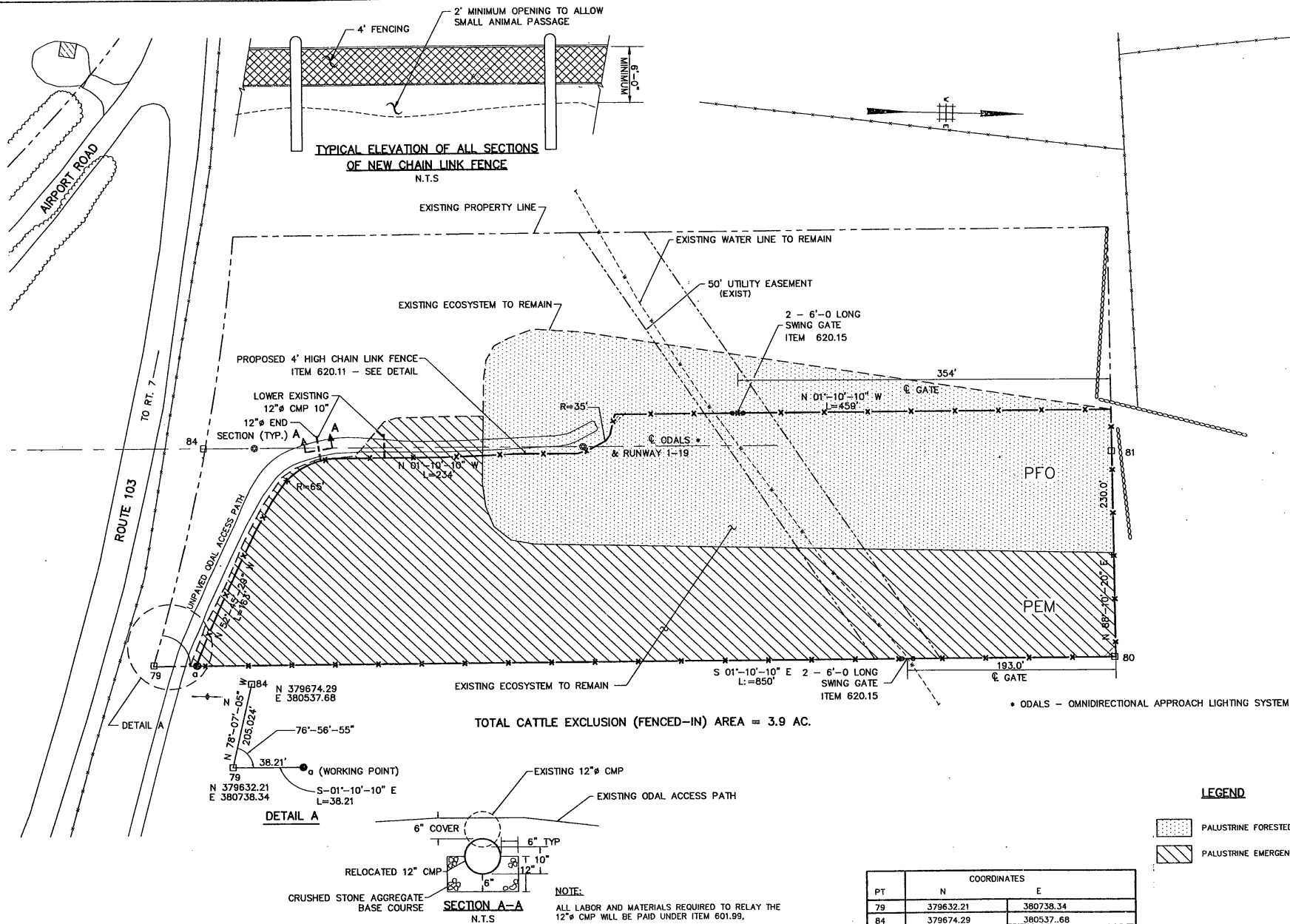


- LEGEND:**
- REED/CANARY GRASS (PHALARIS ARUNDINACEA)
 - SILT FENCE (ITEM 649.10)
 - HAY BALES (ITEM 651.26)
 - LIMIT OF EXISTING BRUSH REMOVAL

		PROJECT NO. 7804		SEAL 	
Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		DATE: AUG. 23, 1983		SCALE: 1" = 80'	
RUTLAND STATE AIRPORT CLARENDON, VERMONT		DATE: AUG. 23, 1983		SCALE: 1" = 80'	
WETLAND MITIGATION PLAN TAXIWAY E AREA 1		DATE: AUG. 23, 1983		SCALE: 1" = 80'	
DRAWING NO. WM2		DATE: AUG. 23, 1983		SCALE: 1" = 80'	
SHEET 24 OF 47		DATE: AUG. 23, 1983		SCALE: 1" = 80'	



PROJECT NO. 7804		Envirotech Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		DATE: AUG. 23, 1993	DESIGNED BY: F.S.	DRAWN BY: D.W.	CHECKED BY: L.G.
RUTLAND STATE AIRPORT CLARENDON, VERMONT		TAXIWAY E		WETLAND MITIGATION PLAN - AREA 2			
DRAWING NO. WM3		SHEET 25 OF 27					



PT	COORDINATES	
	N	E
79	379632.21	380738.34
84	379674.29	380537.68
81	380513.63	380520.63
80	380519.99	380720.42

LEGEND

- PALUSTRINE FORESTED
- PALUSTRINE EMERGENT

PROJECT NO.
7804

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 40'

DATE: AUG. 23, 1993

DESIGNED BY: F.S.

DRAWN BY: D.W.

CHECKED BY: L.G.

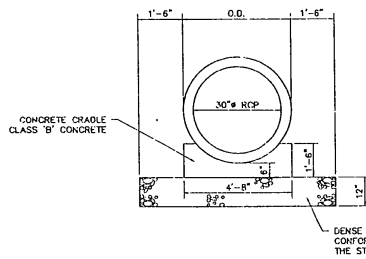
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXWAY E

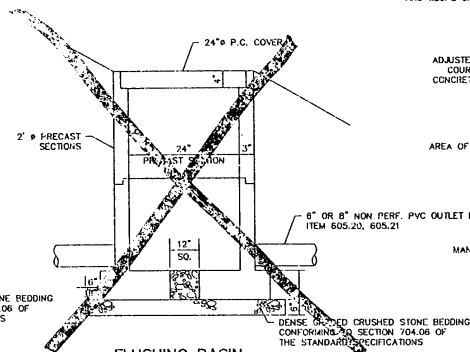
WETLAND MITIGATION PLAN
AREA 3

DRAWING NO.
WM4

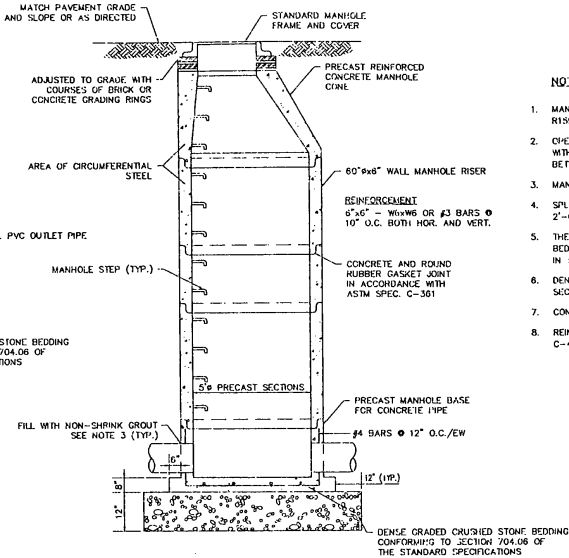
SHEET 26 OF 27



CULVERT CRADLE AND STORM SEWER BEDDING
ITEM 601.0801
N.T.S.



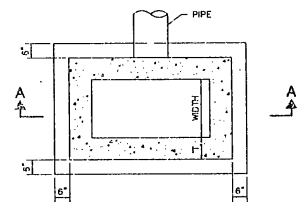
**FLUSHING BASIN
FOR 6" OR 8" UNDERDRAIN**
ITEM 605.95
N.T.S.



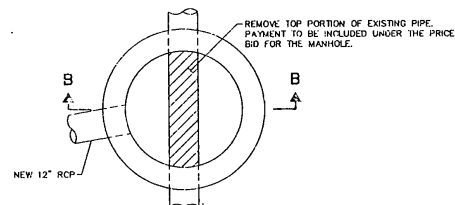
PRECAST MANHOLE
ITEM 604.21
N.T.S.

NOTES:

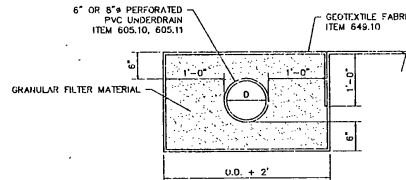
- MANHOLE FRAME AND COVER AT STA. 46+00 SHALL BE NEEHAY FOUNDRY CO. R1590 OR APPROVED EQUAL.
- OPENINGS IN WALLS FOR PIPE SHALL BE CAST-IN-PLACE OR CUT CLEANLY AND WITHOUT PERCUSSION TO A MAXIMUM DIAMETER OF O.D. + 3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE FILLED WITH NON-SHRINK GROUT.
- MANHOLE RUNS SHALL BE NEEHAY NO. R-1581-N DUCTILE IRON PIPE.
- SPLICE LENGTHS REQUIRED FOR REINFORCING BARS: #4 BAR, 1'-4"; #6 BAR, 2'-0"; AND #8 BAR, 3'-5".
- THERE WILL BE NO SEPARATE PAYMENT FOR DENSE GRADED CRUSHED STONE BEDDING, AS SHOWN UNDER THE DRAINAGE STRUCTURES, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SPECIFIC DRAINAGE STRUCTURE.
- DENSE GRADED CRUSHED STONE BEDDING SHALL MEET THE REQUIREMENTS OF SECTION 704.06 OF THE STANDARD SPECIFICATIONS.
- CONCRETE FOR MANHOLES AND INLET STRUCTURES TO BE 4000 PSI AIR-ENTRAINED.
- REINFORCED PRECAST PRODUCTS TO BE IN ACCORDANCE WITH ASTM SPECIFICATIONS C-478.



PRE-CAST DROP INLET
ITEM 604.25
N.T.S.



**MANHOLE TYPE A
NEW MANHOLE AT EXISTING 12" PIPE**
STA. 46+00, 100'± LEFT
ITEM 604.31
N.T.S.



UNDERDRAIN DETAIL
N.T.S.

DRAINAGE INLETS						
N.O.	LOCATION	LENGTH	WIDTH	WALL THICKNESS	DEPTH	FRAME AND GRATE
1	13+10, 65' RT.	3'-0"	2'-0"	6"	7"	R-3475
2	22+20, 45' LT.	3'-4"	1'-11"	6"	4"	R-3362
3	46+00, 60' LT.	2'-5"	2'-5"	6"	3.5'	R-3350
4	44+00, 44' LT.	2'-5"	2'-5"	6"	3.0'	R-3350

* NEEHAY FOUNDRY COMPANY OR APPROVED EQUAL.
** DOES NOT INCLUDE WALL THICKNESS

LOCATION STA. - STA.	OFFSET		UNDERDRAINS				COMMENTS
	EAST SIDE	WEST SIDE	6" PER FOR. LENGTH	6" NONPERF. LENGTH	6" PERFOR. LENGTH	6" NONPERF. LENGTH	
11+00 - 14+50	-	22'	350'	-	-	-	
11+00 - 14+50	22'	-	350'	-	-	-	
14+50 - 15+55	22'	-	110'	-	-	-	
14+50 - 15+55	22'	22'	-	44'	-	-	CARRIER PIPE CROSSOVER
15+55 - 17+35	44'	22'	-	56'	-	-	CARRIER PIPE CROSSOVER
17+35 - 17+35	-	22'	275'	-	-	-	
17+35 - 18+00	-	22'	60'	-	-	-	
18+50 - 22+10	-	22'	330'	-	-	-	
19+10 - 19+10	46'	22'	-	68'	-	-	CARRIER PIPE CROSSOVER, OUTLET TO HEADWALL
19+10 - 22+10	-	22'	300'	-	-	-	
26+25 - 29+50	-	22'	325'	-	-	-	
26+50 - 29+50	22'	-	300'	-	-	-	
29+50 - 35+00	-	22'	545'	-	-	-	
29+50 - 35+00	22'	-	545'	-	-	-	
35+00 - 39+50	22'	-	-	45'	-	-	
35+00 - 39+50	-	22'	-	45'	-	-	
39+50 - 39+50	-	-	-	-	44'	-	CARRIER PIPE CROSSOVER
39+50 - 39+50	-	-	-	-	68'	-	CARRIER PIPE CROSSOVER, OUTLET TO MANHOLE
39+50 - 39+50	-	22'	35'	-	-	-	
43+00 - 44+50	-	22'	150'	-	-	-	
44+00 - 45+00	22'	-	100'	44'	-	-	CARRIER PIPE CROSSOVER
44+50 - 45+00	-	22'	50'	-	-	-	
45+00 - 46+00	-	22'	100'	40'	-	-	CARRIER PIPE CROSSOVER, OUTLET TO EXISTING DROP INLET
46+50 - 47+15	22'	-	110'	-	-	-	
47+00 - 46+00	-	VARIES	100'	20'	-	-	CARRIER PIPE CROSSOVER
TOTAL			4185 L.F.	282 L.F.	910 L.F.	112 L.F.	

SEAL

PROJECT NO. 7304

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

DRAWN BY: E.M.
CHECKED BY: L.O.
DESIGNED BY: P.S.
DATE: AUG. 23, 1993
SCALE: AS SHOWN

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

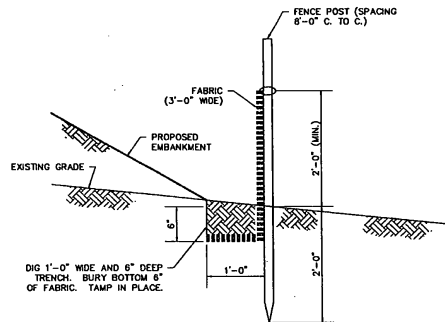
TAXWAY E

DRAINAGE STRUCTURE DETAILS

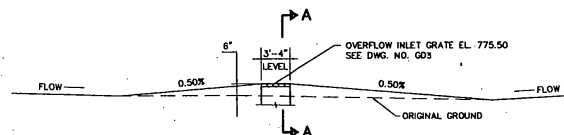
DRAWING NO. DD1

SHEET 27 OF 47

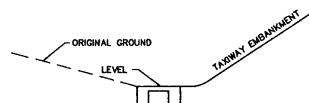
REVISED 9-15-93 P.D



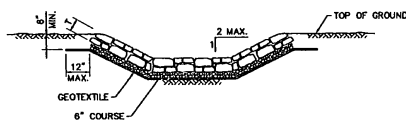
SILT FENCE DETAIL
ITEM 649.20
N.T.S.



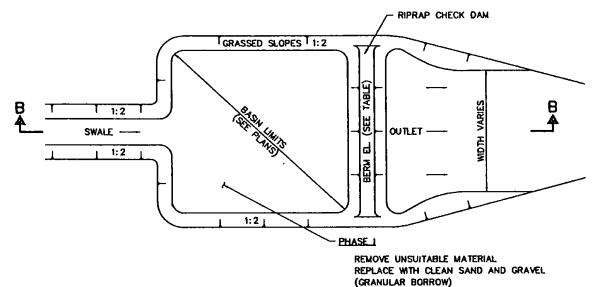
CHECK DAM AND DROP INLET
STA. 22+20.45' LEFT
N.T.S.



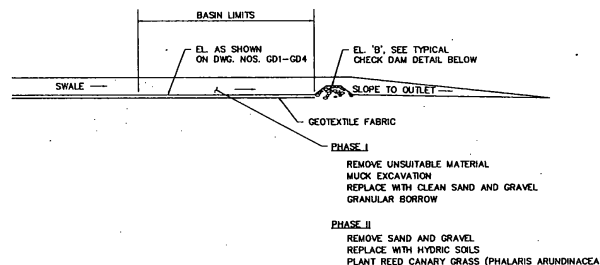
SECTION A-A
N.T.S.



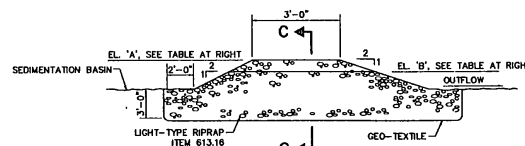
RIP-RAP @ SWALES
ITEM 613.16
N.T.S.



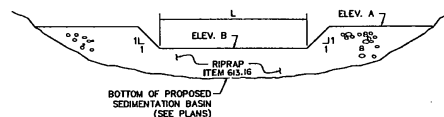
SEDIMENTATION BASIN / WETLAND POOL
N.T.S.



SECTION B-B
N.T.S.



TYPICAL CHECK DAM DETAIL
N.T.S.



SECTION C-C
N.T.S.

REQUIREMENTS FOR SEDIMENT BARRIER DESIGN CRITERIA

- ALL TYPES OF SEDIMENT BARRIERS:
 - THE BARRIER SHALL BE CONSTRUCTED SO WATER CANNOT BYPASS THE BARRIER AROUND THE ENDS.
 - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - THE BARRIER SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. APPROVAL FROM RESIDENT ENGINEER REQUIRED.
- REQUIREMENTS FOR BALE BARRIER (E.G., STRAW, HAY OR OTHER ACCEPTABLE VEGETATIVE MATERIAL):
 - BALES TO BE PLACED AT LOCATIONS NOTED ON THE PLANS.
 - ALL BALES SHALL BE SECURELY TIED AND STAKED ON THE CONTOUR. SEE SHEET 23 FOR DETAILS.
 - BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO STAKES OR RE-BARS DRIVEN THROUGH EACH BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- REQUIREMENTS FOR SILT FENCE (SEE DETAIL ON THIS SHEET):
 - SILT FENCES TO BE PLACED AT LOCATIONS NOTED ON THE PLANS.
 - FENCE POSTS SHALL BE SPACED 8 FEET CENTER TO CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND. THEY SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND.
 - A FILTER FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FILTER FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. FILTER FABRIC MAY BE FASTENED IN PLACE BY STAKE OR OTHER MEANS ACCEPTED BY THE RESIDENT ENGINEER.

SEDIMENTATION BASIN / WETLAND POOL NOTES

- CONTRACTOR TO CONSTRUCT SEDIMENTATION BASINS AS HIS FIRST OPERATION.
- CONTRACTOR TO REMOVE ACCUMULATED SEDIMENT AS NECESSARY DURING CONSTRUCTION OF TAXIWAY FOR EFFICIENT BASIN OPERATION.
- UPON COMPLETION OF THE PROJECT, ESTABLISHMENT OF GRASSED SIDESLOPES AND UPON THE FINAL CLEANING OF THE BASIN OF SILT, THE CONTRACTOR MAY THEN COMPLETE THE FINAL PHASE OF BASIN CONSTRUCTION BY PLACING THE REQUIRED SOILS IN THE BASIN AND PLANTING THE RECOMMENDED VEGETATION (SEE DETAIL, PHASE II).

SEDIMENTATION BASINS					
LOCATION	OFFSET	DW L	ELEV. A	ELEV. B	
STA. 21+80	100' RT.	13.0	771.00	770.50	SEE DWG. NO. G02
STA. 23+00	60' RT.	10.0	772.00	771.50	SEE DWG. NO. G02
STA. 40+00	60' RT.	10.0	771.20	770.70	SEE DWG. NO. G03

SEAL

PROJECT NO.
7804

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

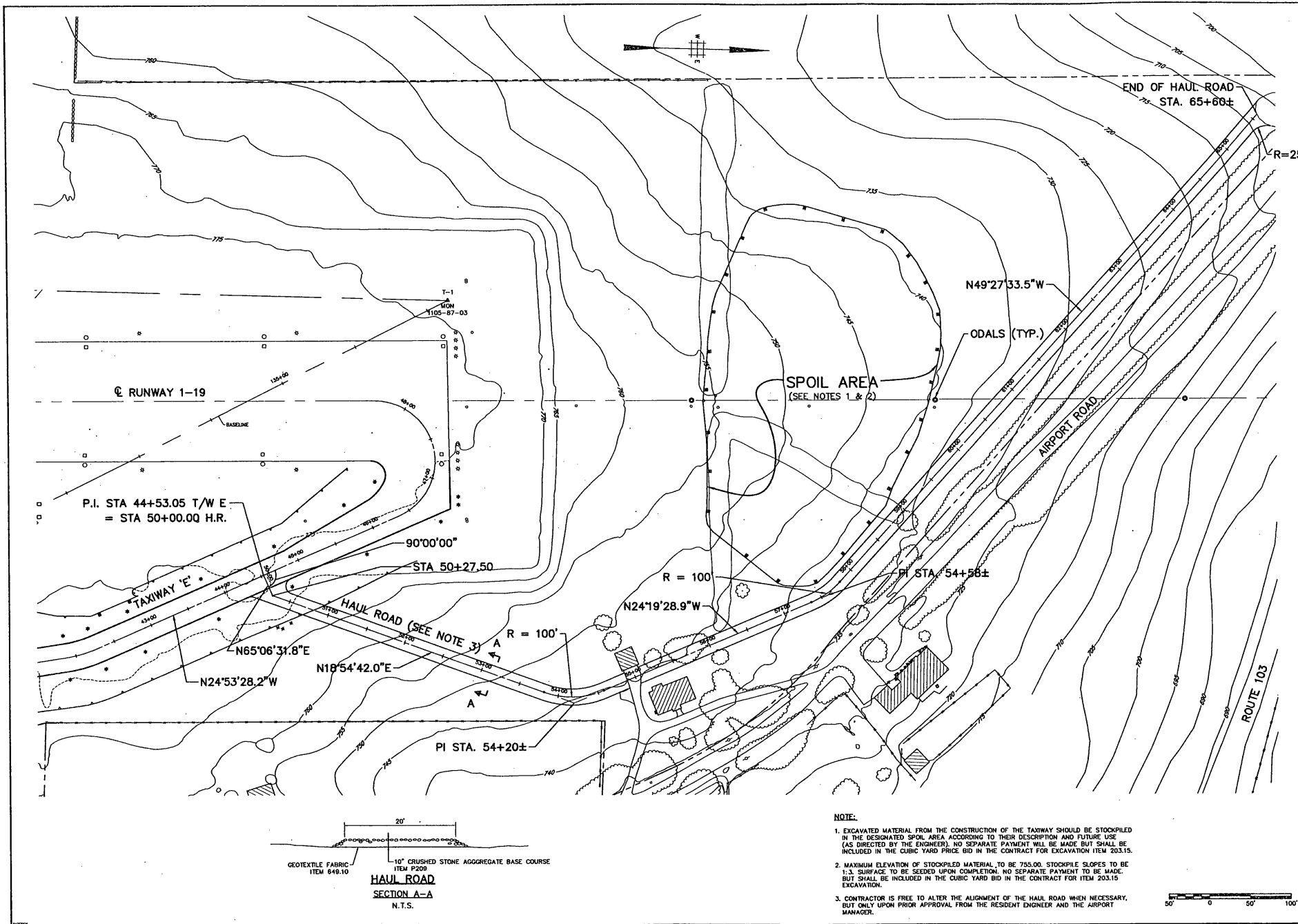


RUTLAND STATE AIRPORT
CLARENDON, VERMONT

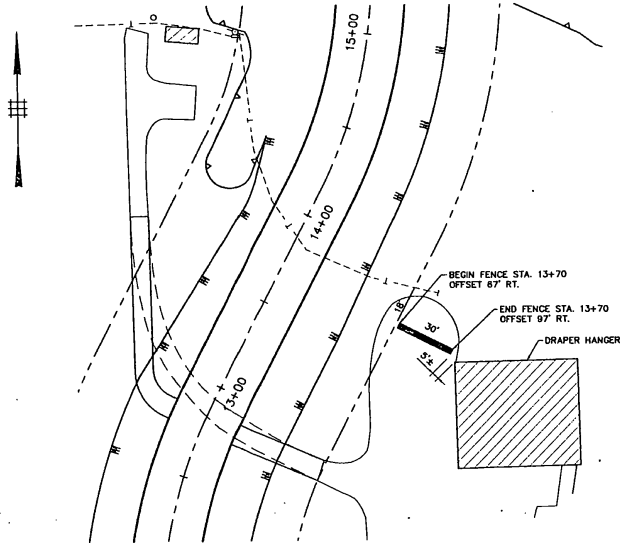
TAXIWAY E
EROSION CONTROL AND
WETLAND MITIGATION DETAILS

DRAWING NO.
DD2
SHEET 28 OF 71

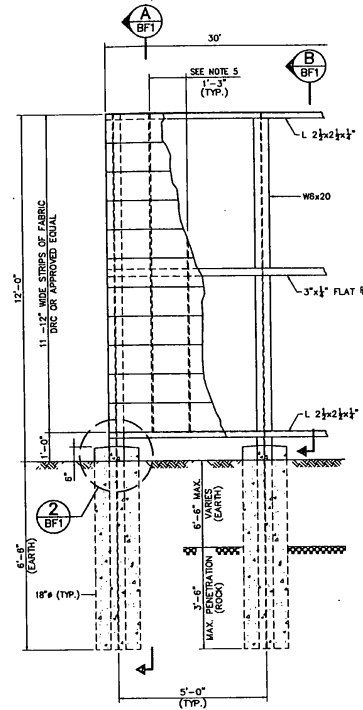
C:\USERS\ADMINISTRATOR\DRAWING\1993\1993-08-23\1993-08-23.DWG



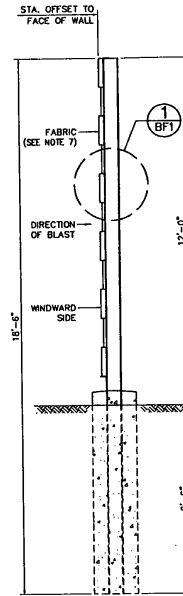
PROJECT NO. 7804		Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		DATE: AUG. 23, 1993		SCALE: 1" = 50'		DRAWN BY: F.S. D.W.		CHECKED BY: L.G.	
RUTLAND STATE AIRPORT CLARENDON, VERMONT		TAXIWAY E HAUL ROAD AND SPOIL AREA PLAN		DRAWING NO. HR1		SHEET 29 OF 42		SEAL		DATE	



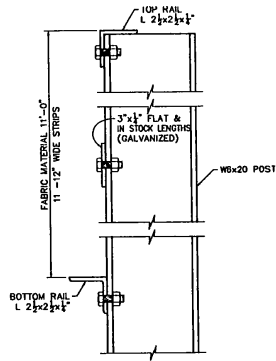
PLAN
N.T.S.



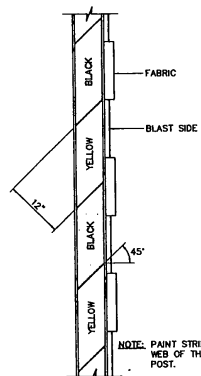
ELEVATION
Scale: $\frac{1}{2}'' = 1'-0''$



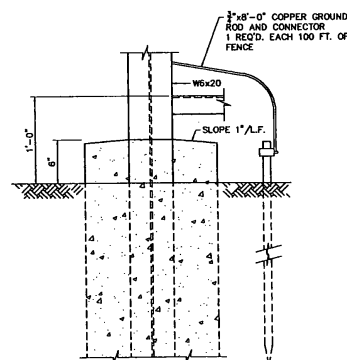
SECTION
Scale: $\frac{1}{2}'' = 1'-0''$



SECTION
Scale: $3'' = 1'-0''$



DETAIL
Scale: $1'' = 1'-0''$

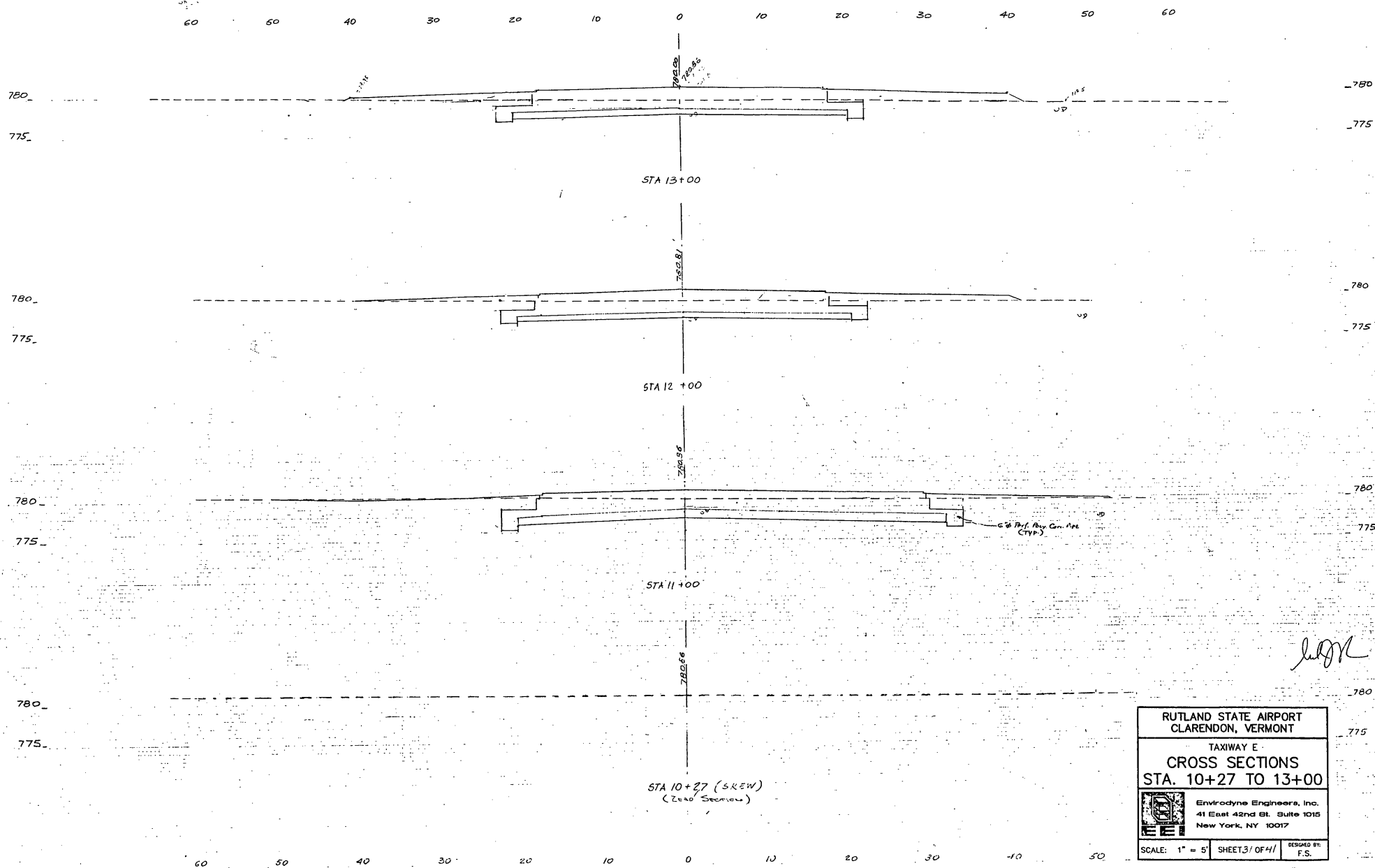


DETAIL
Scale: $3'' = 1'-0''$

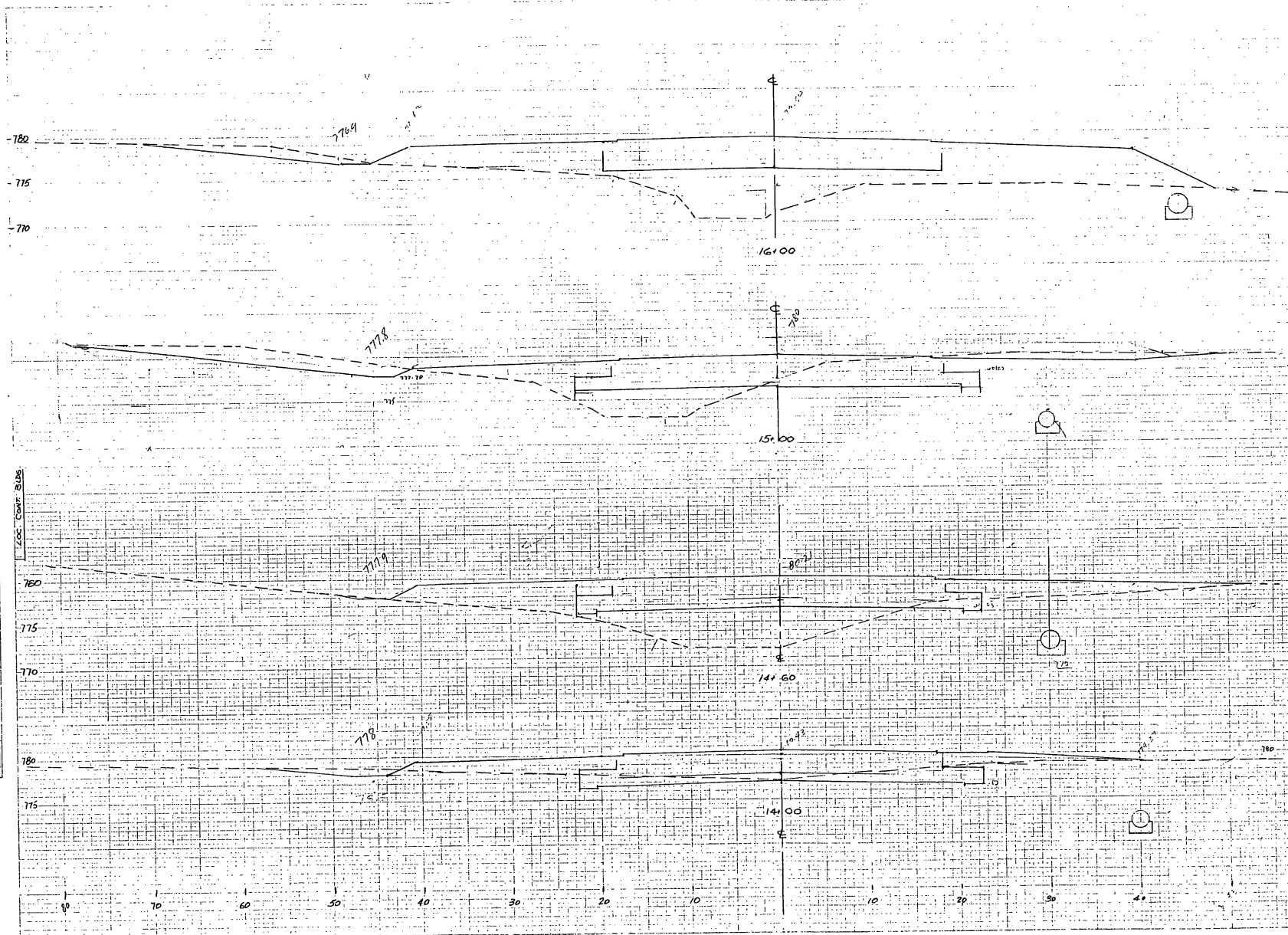
INSTALLATION PROCEDURE

1. INSTALL 18'-6" LONG - 6" WIDE FLANGE BEAM POSTS AT 5'-0" CENTERS IN 18" DIA. CONCRETE FOOTINGS.
2. FASTEN TOP AND BOTTOM RAILS TO "W" BEAM POSTS WITH 3/8" X 16 UNC TYPE "F.A" NUTS AND 3/8" X 16 X 1/2 HEX. HEAD BOLTS S.A.E. GRADE 2.
3. FASTEN FIRST ROLL OF 24 GAUGE FABRIC, MATERIAL 12" WIDE BY SPECIFIED LENGTH AT END POST - WIDE HANGERS TO HOLD TO TOP RAIL.
4. USE A 1/2" X 1 1/2" FOOT PIPE THRU THE END OF THE FABRIC MATERIAL AND USE A STANDARD CYCLOPE OR CHAIN LINK FENCE STRETCHER TO LAST POST - WHEN TIGHT FASTEN WITH TKS (12-24 X 7/8 HEX. WASHER HEAD WITH TWIN SEAL WASHER - ILLINOIS TOOL WORKS - BULDEX DIV).
5. INSERT A 11 FOOT X 1/2" DIA. GALVANIZED PIPE WOVEN THRU FABRIC AT 1'-3" INTERVALS FOR ADDITIONAL STRENGTH - NO CONCRETE IS NECESSARY FOR THESE POSTS.
6. INSTALL SUCCESSIVE FABRIC MATERIAL IN THE SAME MANNER.
7. FABRIC MUST BE INSTALLED ON WINDWARD SIDE OF BARRIER. FABRIC TO BE AS MANUFACTURED BY D.R.C. FABRICATED PRODUCTS, DIVISION OF LANGENAU MFG. CO. OR APPROVED EQUAL.
8. FIRST AND LAST POST TO BE PAINTED ALTERNATE BLACK AND YELLOW DIAGONAL STRIPES (SEE DETAIL 1).

		PROJECT NO.		7804	
		RUTLAND STATE AIRPORT CLARENDON, VERMONT		TAXIWAY E BLAST FENCE	
Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017		DATE:	AUG. 23, 1993	DRAWN BY:	F.S.
		SCALE:	AS SHOWN	CHECKED BY:	E.M.
				DESIGNED BY:	L.G.
				REVISION	DESCRIPTION
				DATE	BY
				DATE	BY



RUTLAND STATE AIRPORT CLARENDON, VERMONT	
TAXIWAY E	
CROSS SECTIONS STA. 10+27 TO 13+00	
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017
SCALE: 1" = 5'	SHEET 3 / OF 4 / DESIGNED BY: F.S.

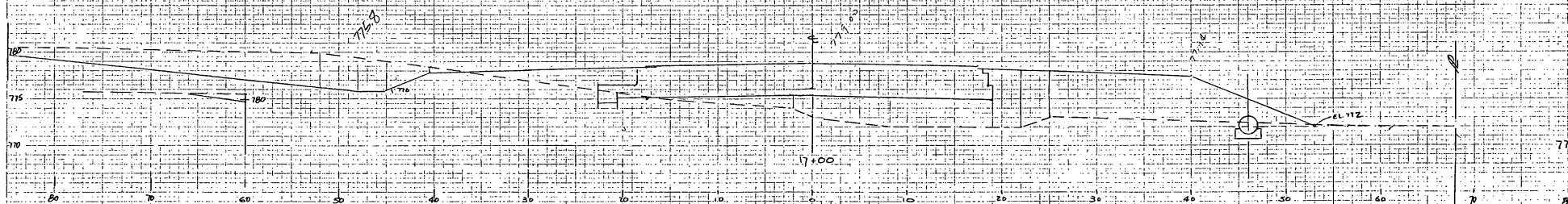
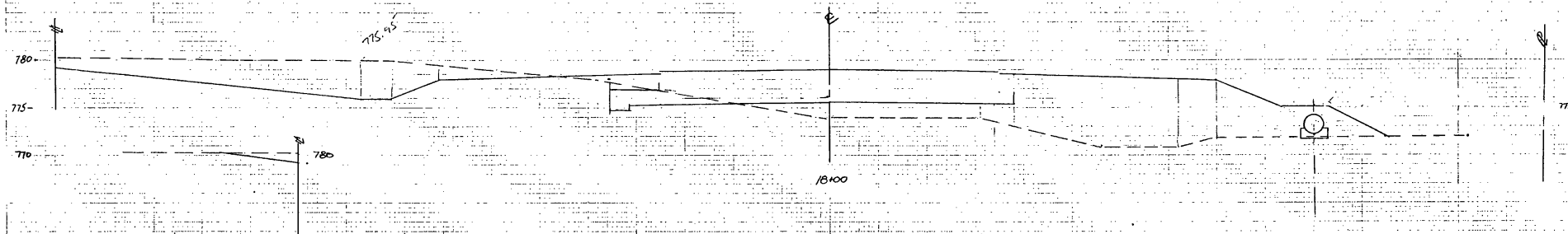


**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

**TAXIWAY E
CROSS SECTIONS
STA. 14+00 TO 16+00**

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 5' SHEET 32 OF 41 DESIGNED BY: F.S.

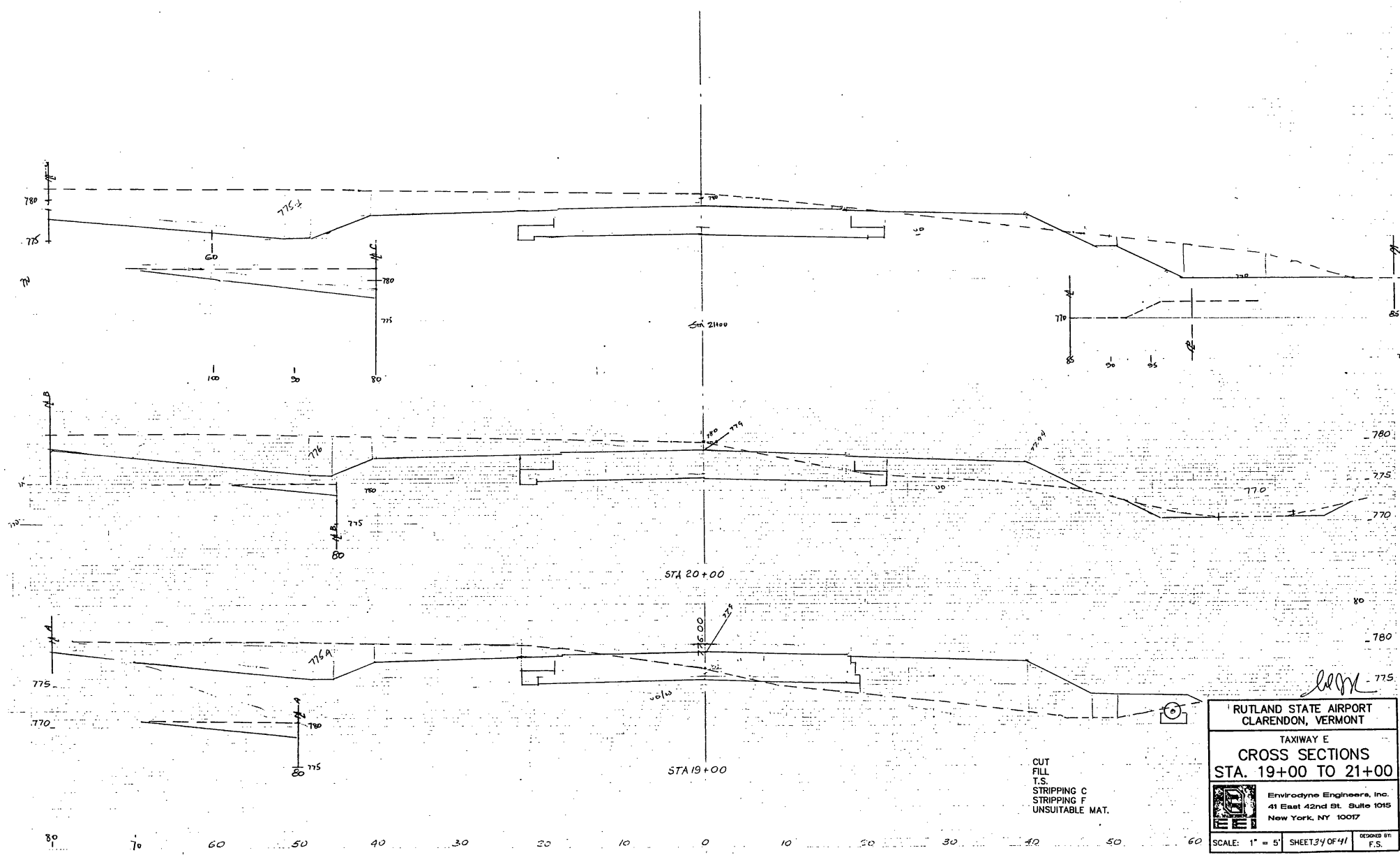


**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

**TAXIWAY E
CROSS SECTIONS
STA. 17+00 TO 18+00**

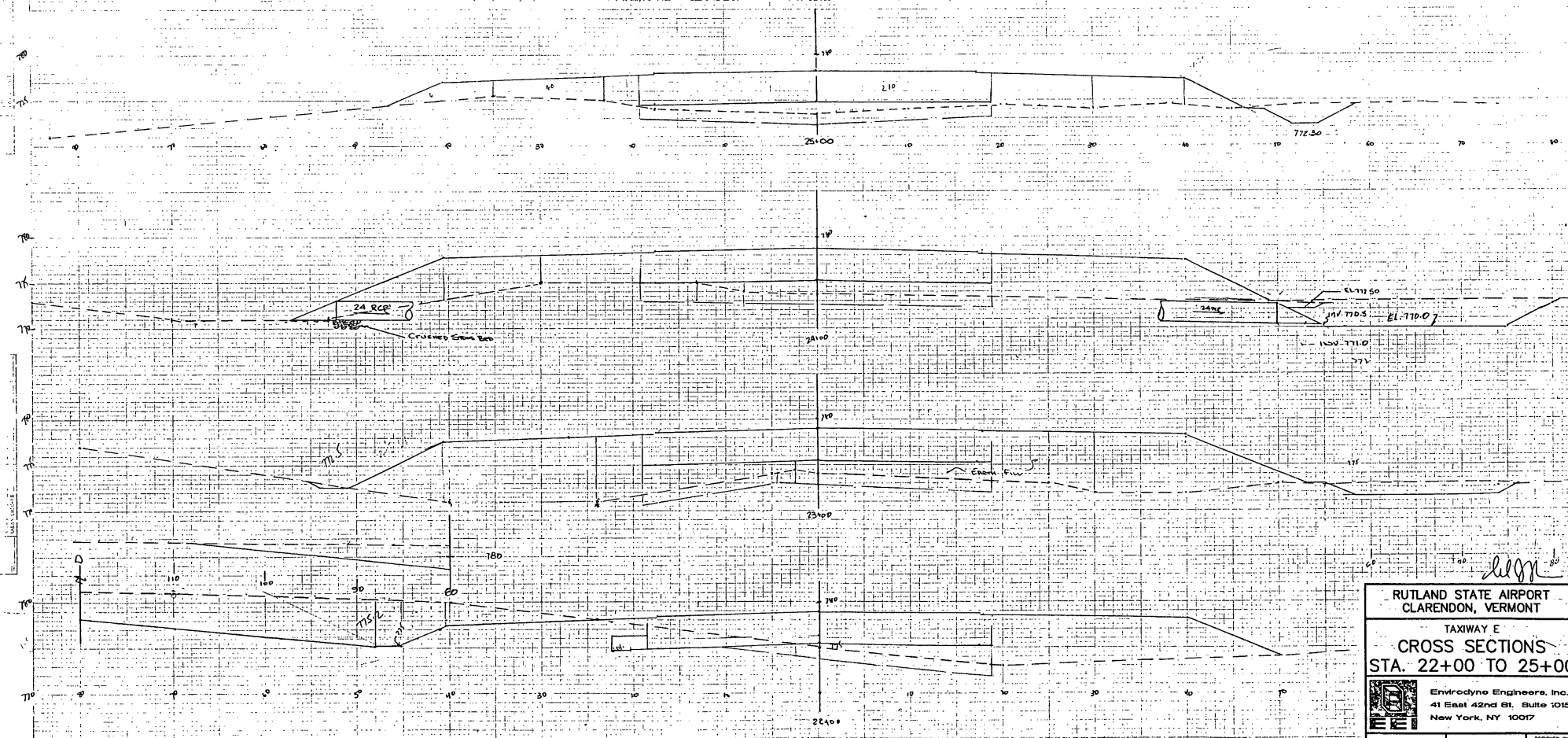
Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 5' SHEET 33 OF 44 DESIGNED BY: F.S.



CUT
FILL
T.S.
STRIPPING C
STRIPPING F
UNSUITABLE MAT.

RUTLAND STATE AIRPORT CLARENDON, VERMONT		
TAXIWAY E CROSS SECTIONS STA. 19+00 TO 21+00		
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017	
	SCALE: 1" = 5'	SHEET 34 OF 41
		DESIGNED BY F.S.

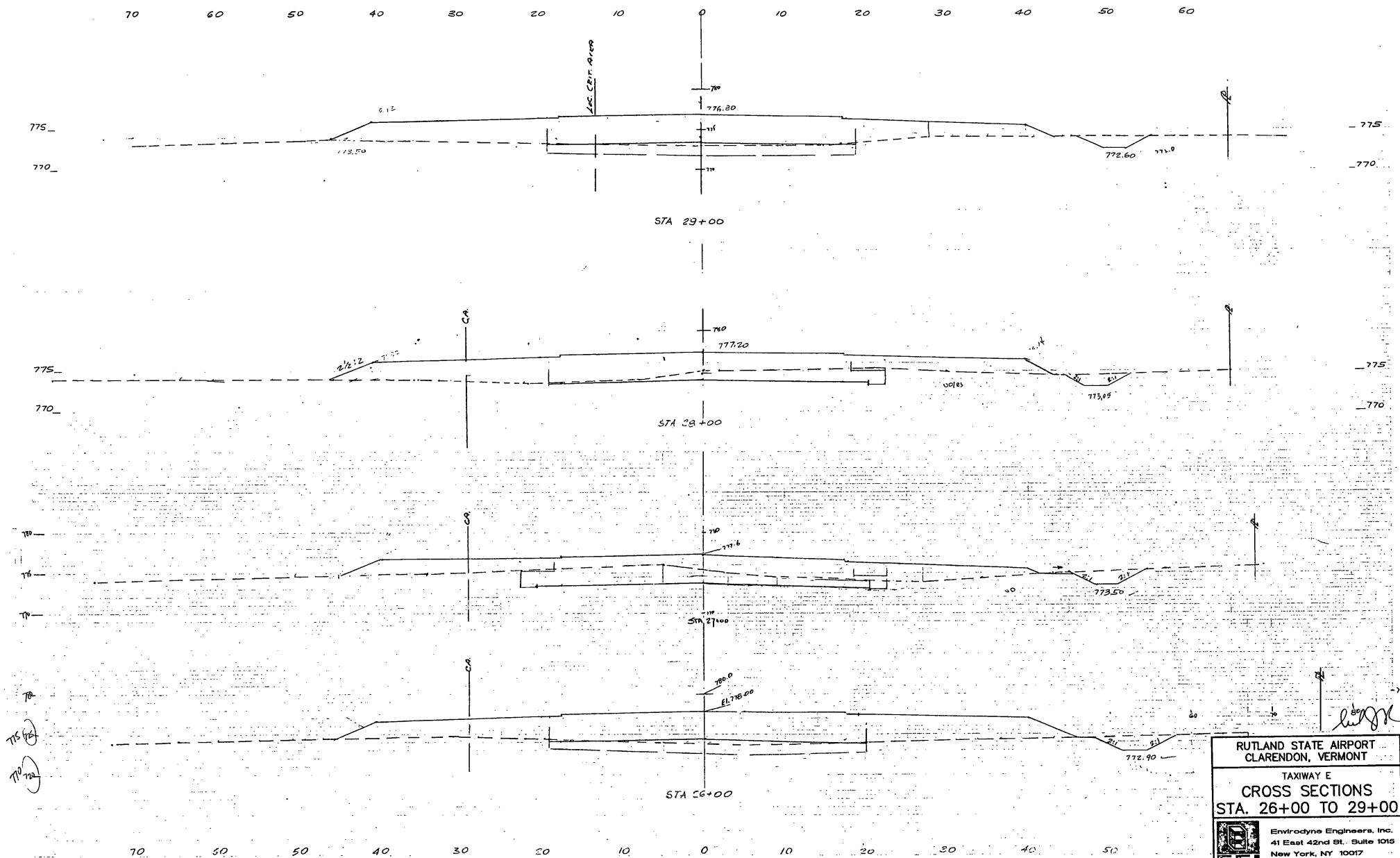


**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

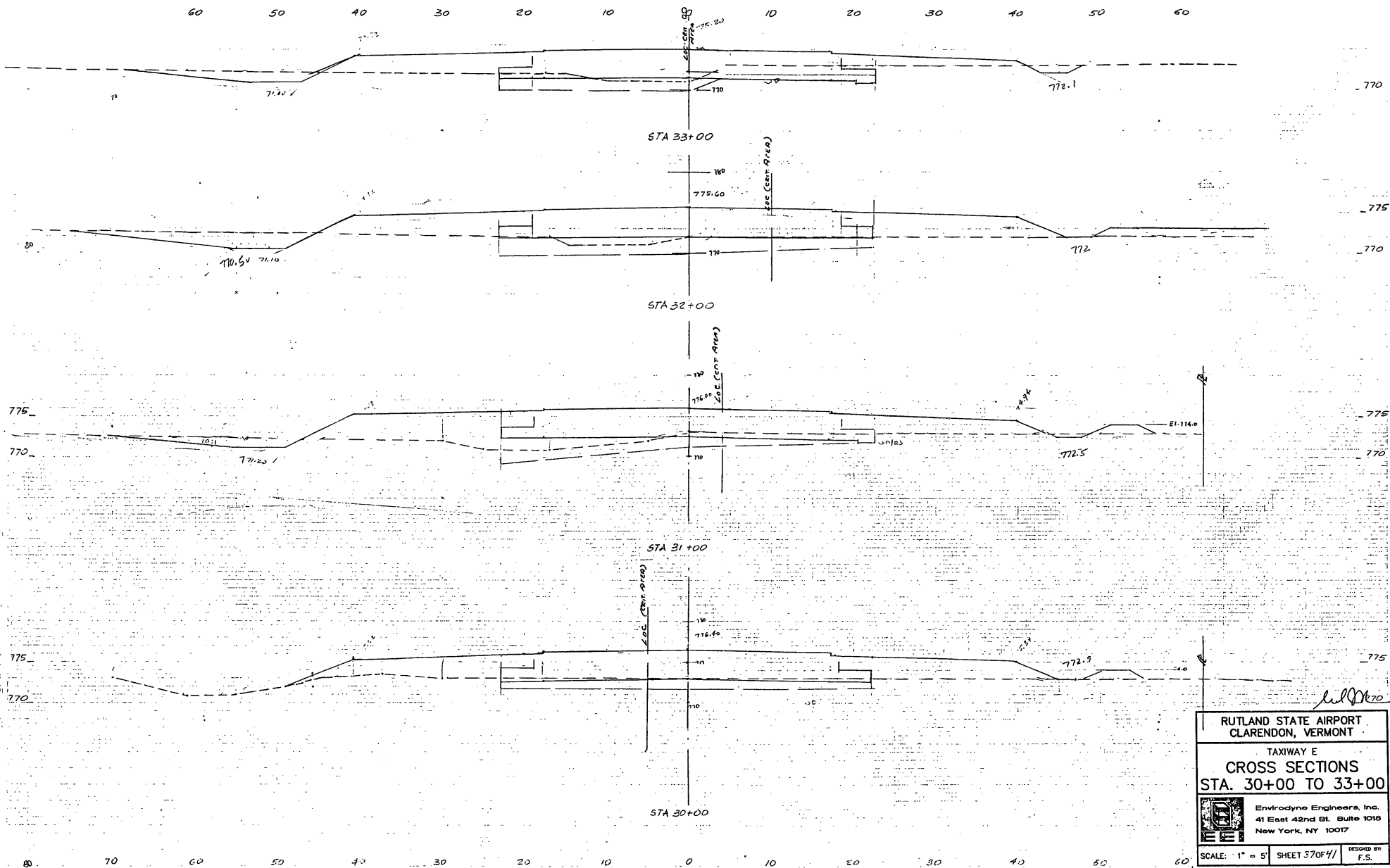
**TAXIWAY E
CROSS SECTIONS
STA. 22+00 TO 25+00**

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

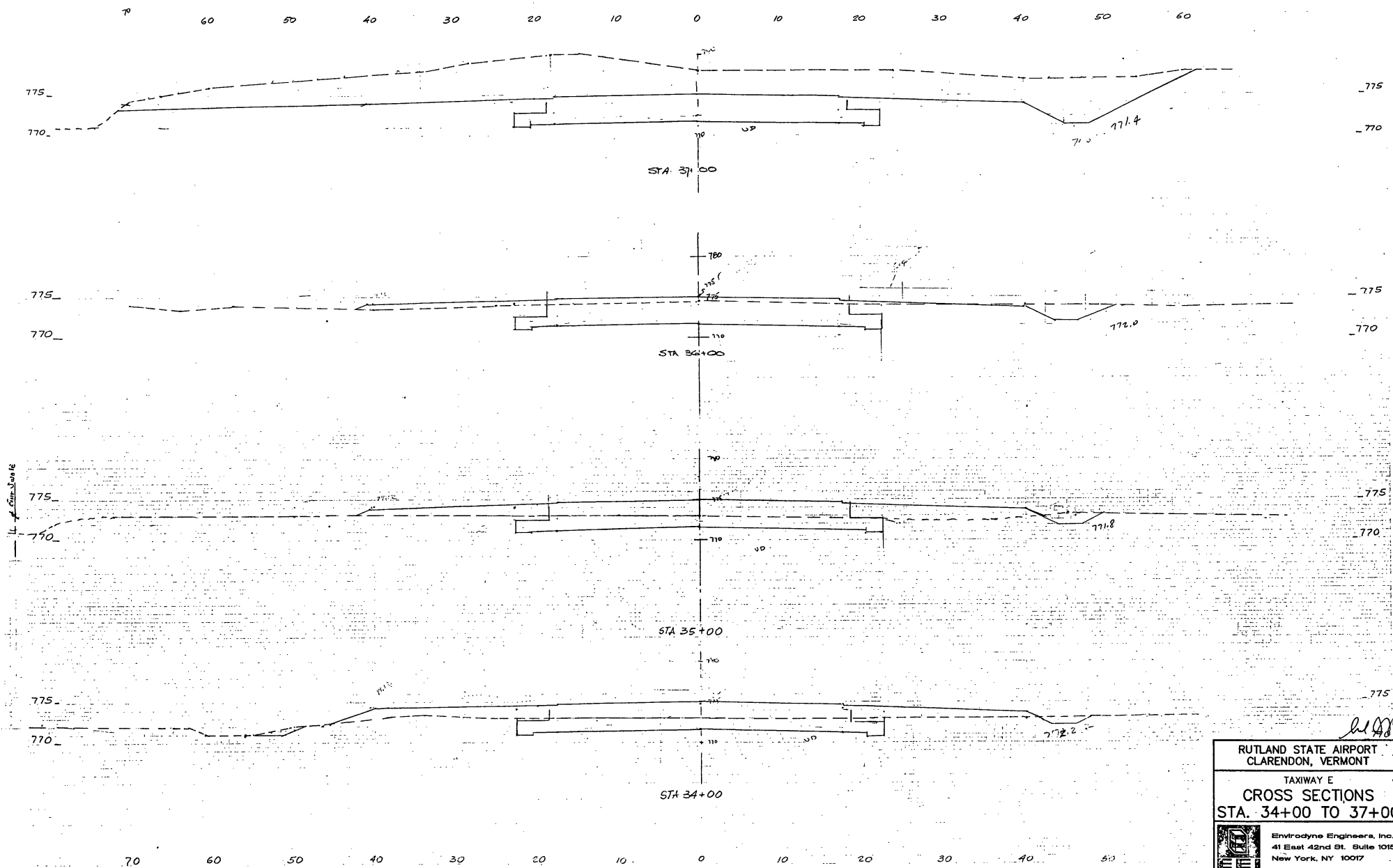
SCALE: 1" = 5' **SHEET 35 OF 41** **DESIGNED BY: F.S.**



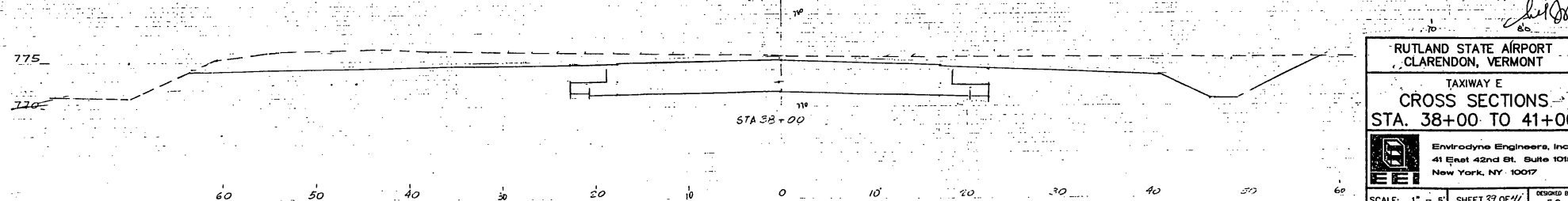
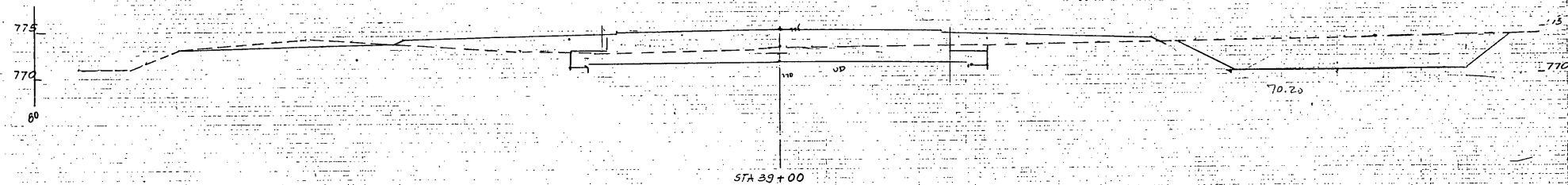
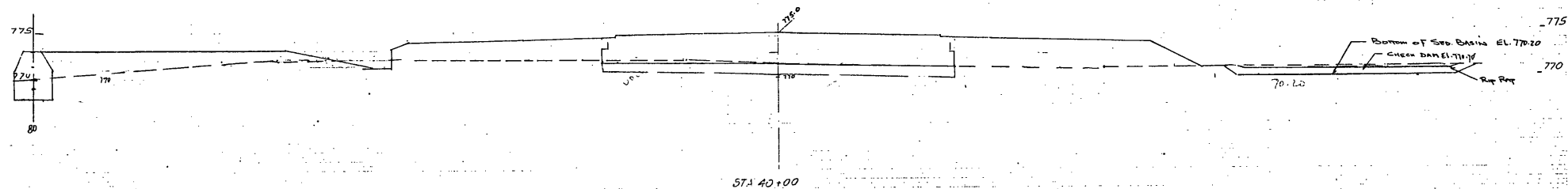
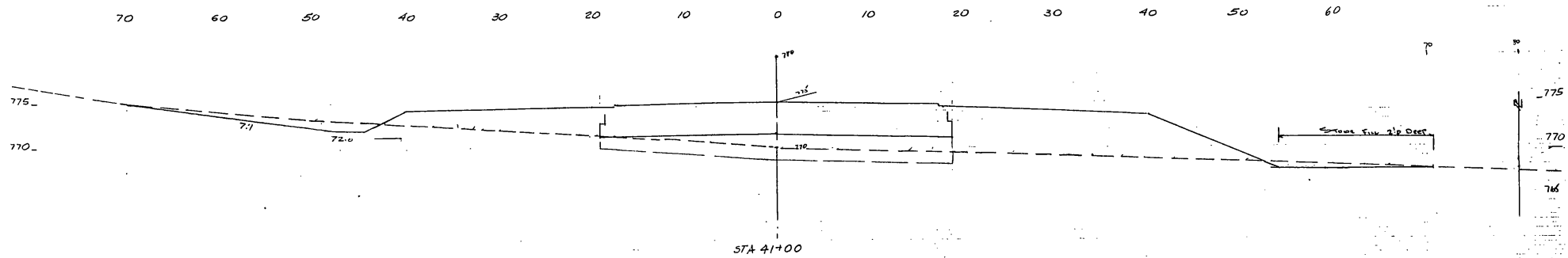
RUTLAND STATE AIRPORT CLARENDON, VERMONT	
TAXIWAY E CROSS SECTIONS STA. 26+00 TO 29+00	
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017
SCALE: 1" = 5'	SHEET 36 OF 41 DESIGNED BY F.S.



RUTLAND STATE AIRPORT CLARENDON, VERMONT	
TAXIWAY E	
CROSS SECTIONS	
STA. 30+00 TO 33+00	
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017
	DESIGNED BY F.S.
SCALE: 1" = 5' SHEET 570F4/	



RUTLAND STATE AIRPORT CLARENDON, VERMONT	
TAXIWAY E	
CROSS SECTIONS	
STA. 34+00 TO 37+00	
	Envirodyne Engineers, Inc. 41 East 42nd St. Suite 1015 New York, NY 10017
SCALE: 1" = 5'	SHEET 39 OF 41
DESIGNED BY: F.S.	

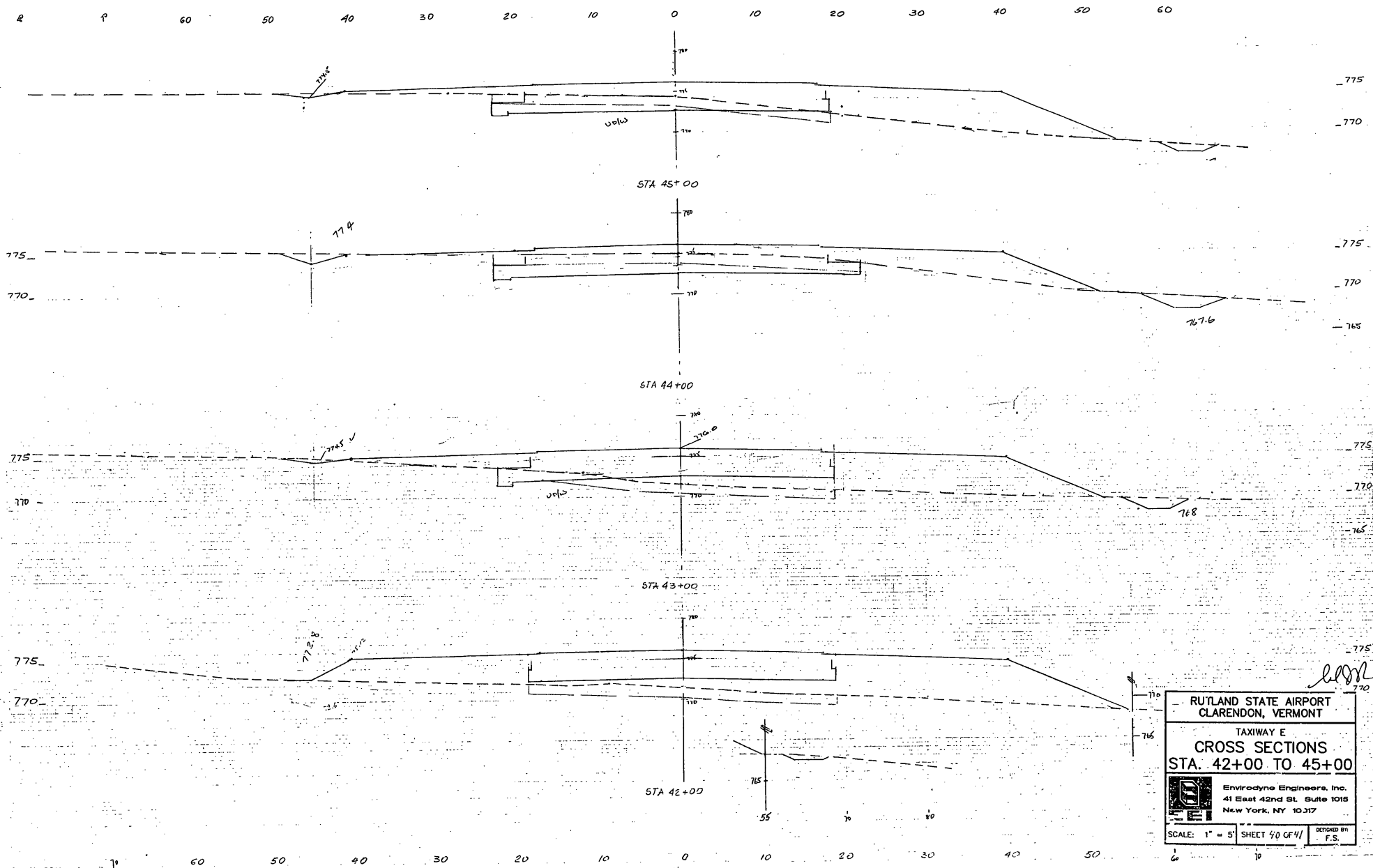


RUTLAND STATE AIRPORT
CLARENDON, VERMONT

TAXIWAY E
CROSS SECTIONS
STA. 38+00 TO 41+00

Envirowide Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 5'
SHEET 39 OF 41
DESIGNED BY: F.S.

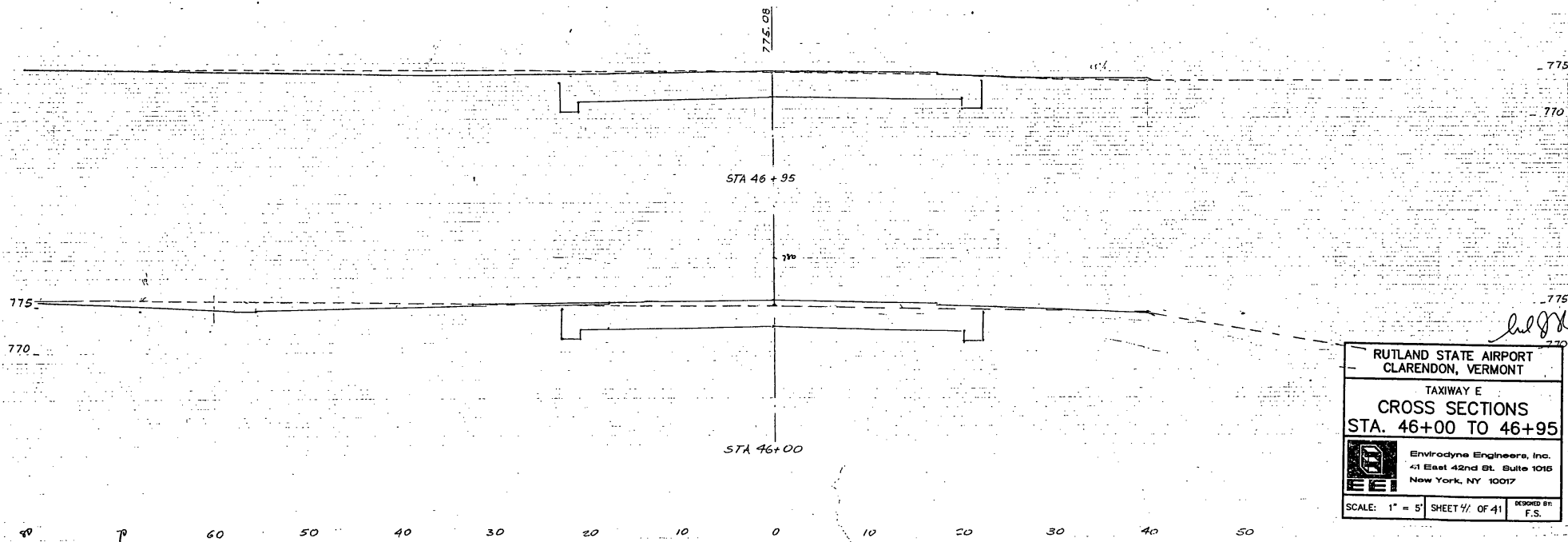


**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

**TAXIWAY E
CROSS SECTIONS
STA. 42+00 TO 45+00**

Envirodyne Engineers, Inc.
41 East 42nd St. Suite 1015
New York, NY 10017

SCALE: 1" = 5' **SHEET 40 OF 41** **DESIGNED BY: F.S.**

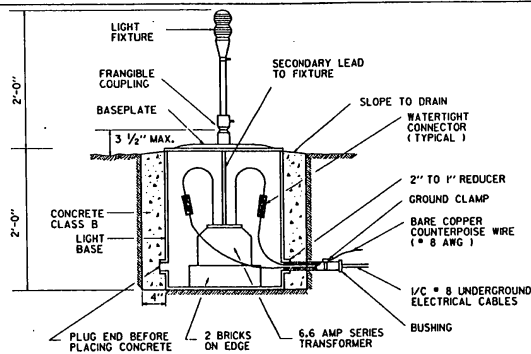


**RUTLAND STATE AIRPORT
CLARENDON, VERMONT**

**TAXIWAY E
CROSS SECTIONS
STA. 46+00 TO 46+95**

EEI Envirodyne Engineers, Inc.
41 East 42nd St, Suite 1016
New York, NY 10017

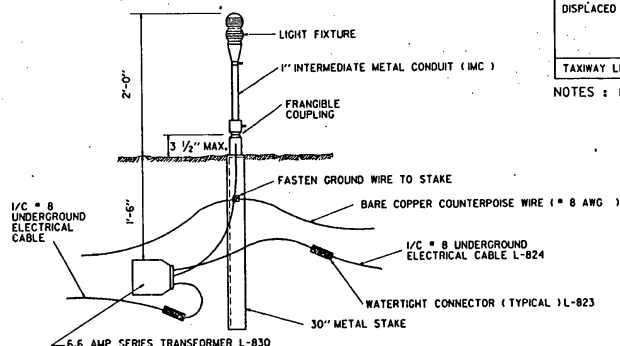
SCALE: 1" = 5' SHEET 41 OF 41 DESIGNED BY: F.S.



- NOTES :
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. SEAL END OF CONDUIT (DUCT SEAL)
 3. PROVIDE 1/2" PER FT. PITCH ON ALL CONDUITS

BASE MOUNTED UNIT

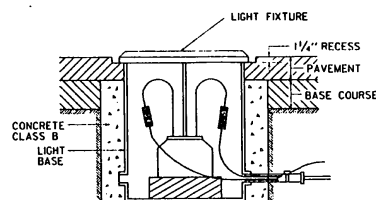
ELEVATED LIGHT
NO SCALE



- NOTES :
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. 30" METAL STAKE SHALL BE MADE OF GALVANIZED STEEL ANGLE 2" x 2" x 1/4" WITH A SUITABLE TAPPED FITTING BOLTED AT THE TOP TO RECEIVE THE FRANGIBLE COUPLING.

STAKE MOUNTED UNIT

ELEVATED LIGHT
NO SCALE



NOTE : FOR ALL OTHER DETAILS, SEE
BASE MOUNTED UNIT FOR
ELEVATED LIGHT.

BASE MOUNTED UNIT

SEMI-FLUSH LIGHT
NO SCALE

LIGHT LOCATION	LAMP		LENS
	MEDIUM INTENSITY	HIGH INTENSITY	
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 15-120W	360° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 15-120W	180° RED/180° GREEN
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W	6.6A, 15-120W	360° RED
			180° RED/180° CLEAR
TAXIWAY LIGHT	6.6A, 30W		180° OBSCURED/180° GREEN
			180° CLEAR/180° GREEN
			360° BLUE

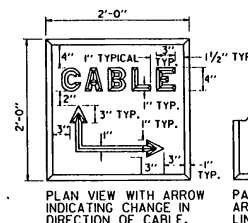
NOTES : 1. SEE PLAN SHEET FOR LENS/LIGHT TYPE.

NOTE : AIRPORT LIGHT BASES SHOULD BE CONSTRUCTED TO FAA SPECIFICATIONS. SEE CURRENT ADVISORY CIRCULAR.

NOTES

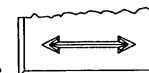
HAND LETTERING NOT ALLOWED ON CABLE OR SPICE MARKERS. LETTERING WILL BE EMBOSSED (1/2" CUT 1/2" DEEP).

ARROW ON CABLE MARKERS WILL INDICATE DIRECTION OF CABLE, AS SHOWN ON PLAN VIEWS BELOW.

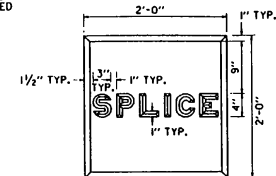


PLAN VIEW WITH ARROW INDICATING DIRECTION OF CABLE.

CABLE MARKER

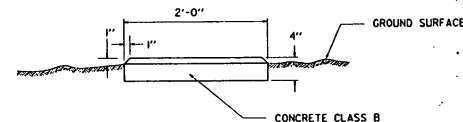


PARTIAL PLAN VIEW WITH ARROW INDICATING STRAIGHT-LINE CABLE INSTALLATION.

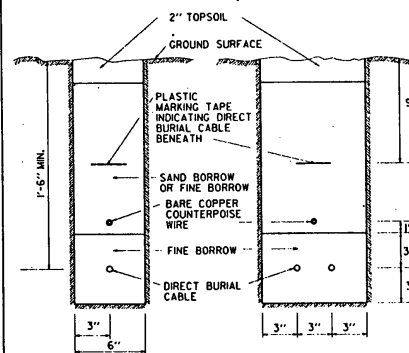


PLAN VIEW
SPICE MARKER

NOTE : SEE STANDARD AP-3 FOR UNDERGROUND ELECTRICAL DUCT DETAILS.



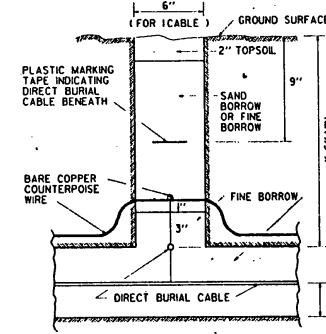
ELEVATION VIEW (TYPICAL FOR CABLE AND SPICE MARKERS)
CABLE AND SPICE MARKERS
NO SCALE



SINGLE CABLE INSTALLATION

TWO CABLE INSTALLATION

NOTE : FOR MULTIPLE-CABLE INSTALLATIONS, PROVIDE 3" ADDITIONAL TRENCH WIDTH FOR EACH ADDITIONAL CABLE.



CABLE TRENCH WITH CABLE CROSSING

NOTE : UNDERGROUND ELECTRICAL CABLE SHOULD BE CONSTRUCTED TO FAA SPECIFICATION. SEE CURRENT ADVISORY CIRCULAR.

UNDERGROUND ELECTRICAL CABLE INSTALLATION
TRENCH DETAILS
(IN EARTH OR ROCK)
NO SCALE

REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 1, 1990

APPROVED

March 2, 1990
DATE

Director of the Agency
DIRECTOR, PLANNING AND
CONSTRUCTION
Director of the Agency
DIRECTOR, DESIGN DIVISION

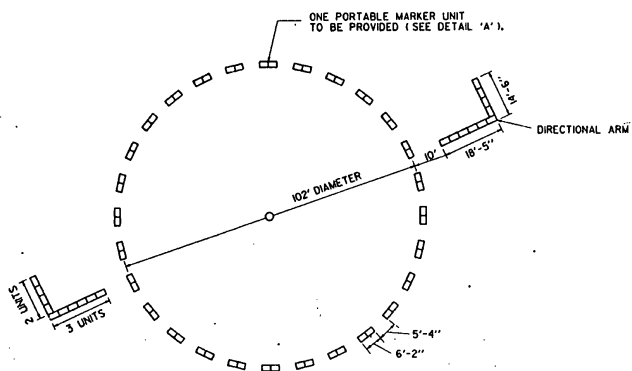
LIGHTING & ELECTRICAL DETAILS



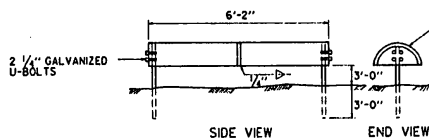
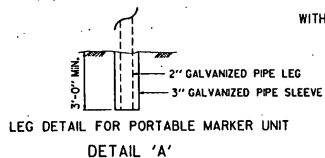
STANDARD
AP-2

NOTES

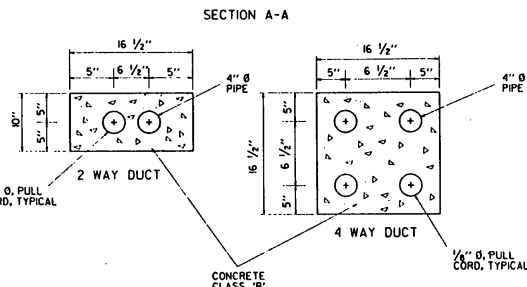
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH RUNWAY.



SEGMENTED CIRCLE LAYOUT
WITH DIRECTIONAL ARMS

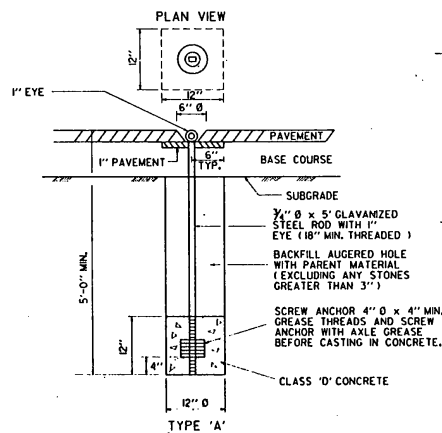


SEGMENTED CIRCLE MARKER UNIT

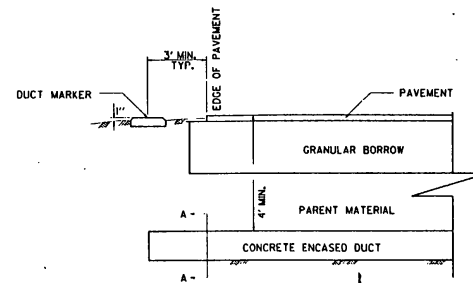


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

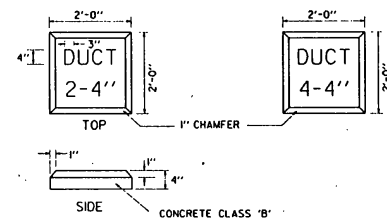
SEE STANDARD AP-2 FOR
DIRECT BURIAL CABLE DETAILS.



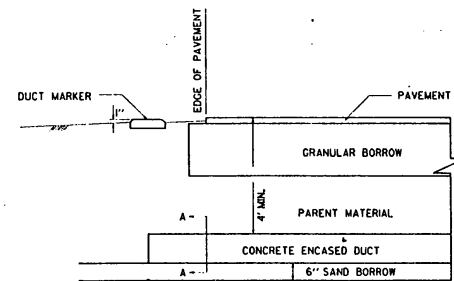
AIRCRAFT TIE DOWN ANCHOR



AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN EARTH)



- NOTES
1. LETTERING ON DUCT MARKERS TO BE EMBOSSED, 1/4" CUT, 1/2" DEEP.
 2. HAND LETTERING NOT ALLOWED



AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN ROCK)

REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 5, 1990

APPROVED

March 18, 1990
DATE

Stephen D. McArthur
DIRECTOR, PLANNING AND
PRECONSTRUCTION
Director, DESIGN DIVISION

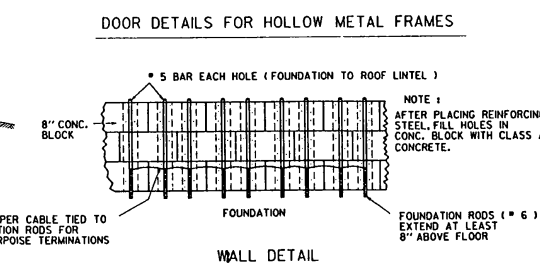
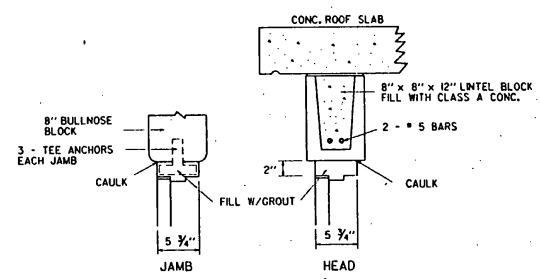
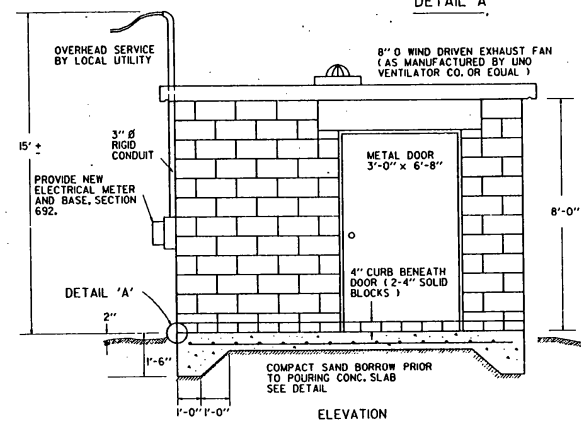
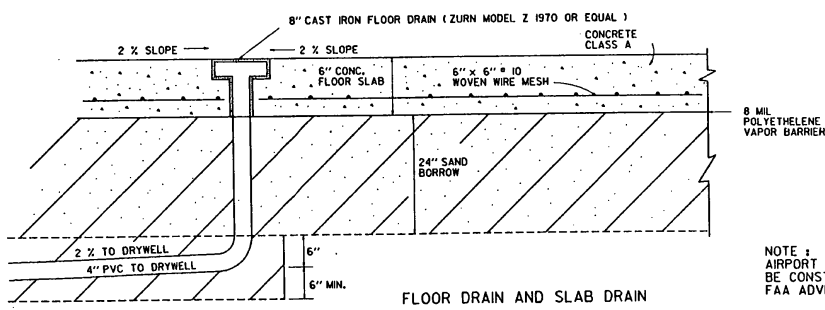
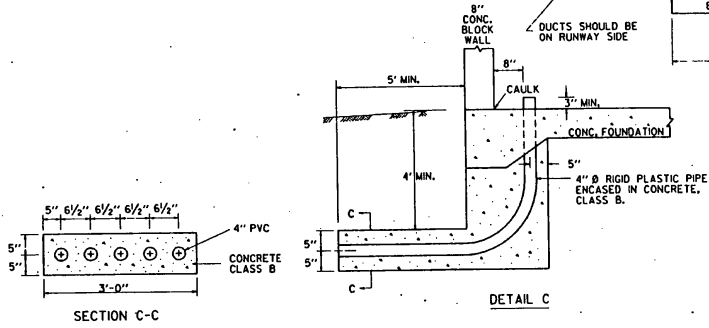
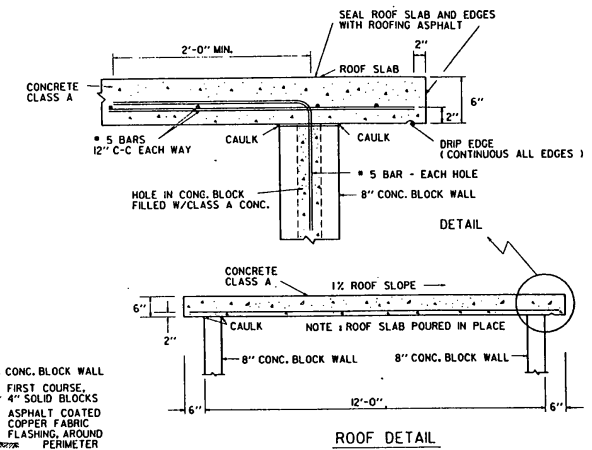
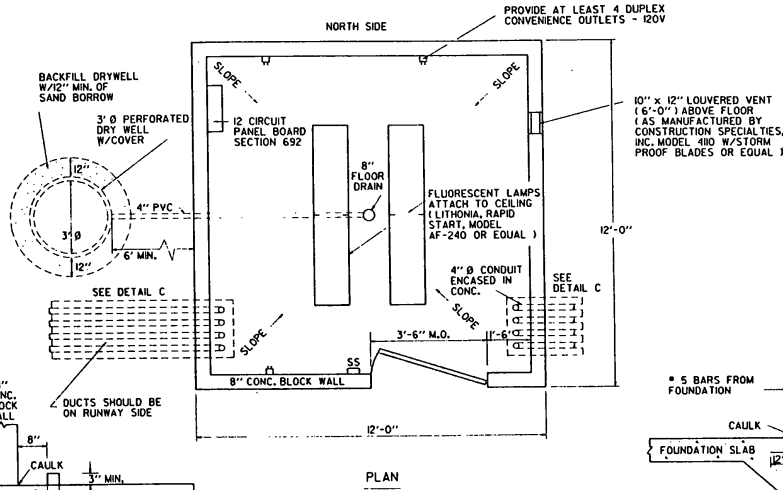
MISCELLANEOUS AIRPORT DETAILS



STANDARD
AP-3

NOTES

1. MOUNT CONTACTORS, BOOSTER TRANSFORMERS AND MISC. HARDWARE ON SAME WALL AS NEW 12 CIRCUIT PANEL BOX.
2. PROVIDE GROUND BUS BENEATH 12 CIRCUIT PANEL BOX.
3. INSTALL ELECTRIC PANEL ON 3/4" PLYWOOD, SET OFF FROM WALL ON 2" x 4" S. ALL WOOD TO BE PAINTED.
4. PROVIDE AT LEAST 1% ROOF SLOPE (TO EAST).
5. FOUNDATION FLOOR TO SLOPE TO CENTER OF VAULT.
6. FIRST COURSE OF BLOCKS ON FOUNDATION TO BE TWO 4" SOLID BLOCKS WITH COPPER FABRIC FLASHING BETWEEN - SEE DETAIL A.
7. PROVIDE ALUMINUM BIRD AND INSECT SCREEN AT AIR INTAKE ON LOUVER AND EXHAUST VENT.
8. CAULK AT ALL METAL TO CONCRETE INTERFACES.
9. PROVIDE DOOR BUMPER ON WALL AND STRIKE SIDE OF JAMB.
10. ELECTRICAL PANEL BOARD AND METER INCLUDED IN AIRPORT TRANSFORMER VAULT EQUIP.
11. CONCRETE BLOCK WALLS AND CONCRETE CEILING SHALL BE SEALED WITH TWO COATS OF APPROVED SEALER. A FINAL COAT OF WHITE PAINT SHALL BE APPLIED OVER THE SEALER.
12. ALL CAULKING SHALL BE ASPHALTIC JOINT COMPOUND.



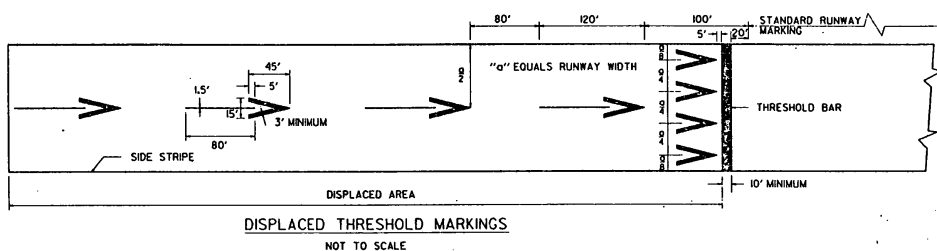
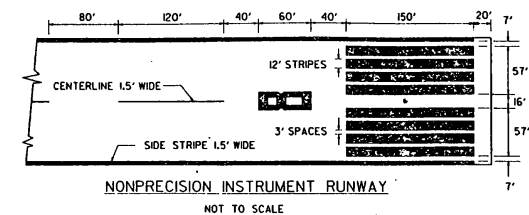
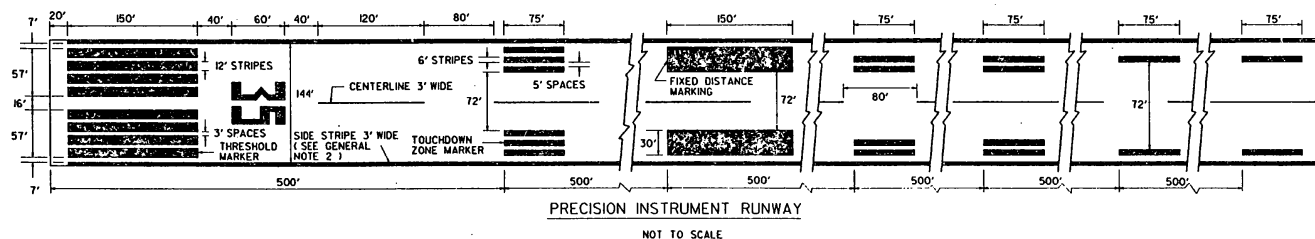
REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 1, 1990

APPROVED *March 12, 1990*
DATE
Stephen D. McArthur
DIRECTOR, PLANNING AND
PRECONSTRUCTION
Paula M. Smith
DIRECTOR, DESIGN DIVISION

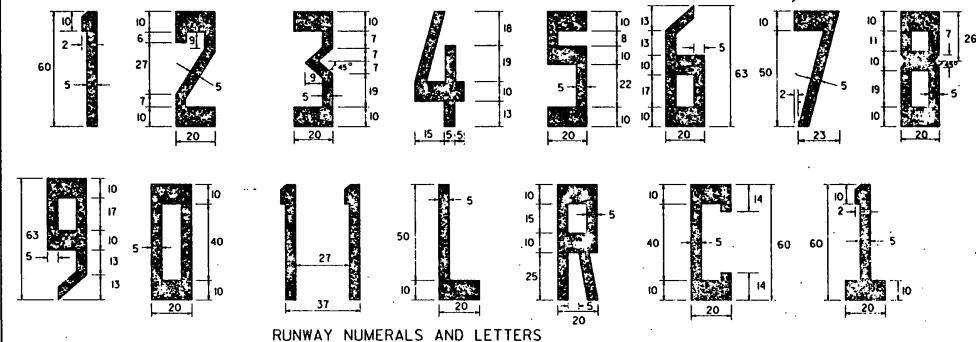
TRANSFORMER VAULT DETAILS



STANDARD
AP-9



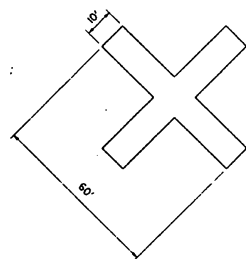
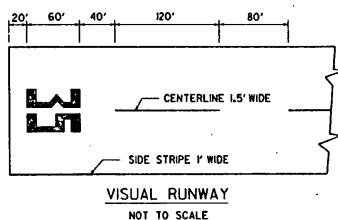
- NOTES**
1. FOUR ARROWHEADS ARE PLACED SYMMETRICALLY ACROSS RUNWAY WITH UNIFORM LATERAL SPACING AS INDICATED.
 2. ALL MARKINGS IN THE DISPLACED AREA ARE YELLOW EXCEPT THE THRESHOLD BAR WHICH IS WHITE.
 3. RUNWAY SIDE STRIPES, WHEN USED ON THE RUNWAY, EXTEND INTO THE DISPLACED AREA.



- NOTES**
1. ALL LETTERS AND NUMERALS, EXCEPT THE NUMBER ELEVEN AS SHOWN, ARE HORIZONTALLY SPACED 15 FEET APART.
 2. DIMENSIONS ARE EXPRESSED IN FEET.
 3. THE NUMERAL ONE, WHEN USED ALONE, CONTAINS A HORIZONTAL BAR TO DIFFERENTIATE IT FROM THE RUNWAY CENTERLINE MARKING.

- GENERAL NOTES**
1. ALL RUNWAY MARKINGS ARE WHITE EXCEPT IN THE DISPLACED THRESHOLD AREA AND NON FULL STRENGTH SHOULDER MARKINGS.
 2. FOR RUNWAYS LESS THAN 100' IN WIDTH, THE WIDTH OF THE MARKINGS, SPACES BETWEEN MARKINGS, AND DISTANCE OF MARKINGS FROM THE RUNWAY EDGE ARE CHANGED PROPORTIONALLY.
 3. ADJUSTMENTS TO THE LENGTH OF THE CENTERLINE STRIPES AND GAPS, WHERE NECESSARY TO ACCOMMODATE THE RUNWAY LENGTH, ARE MADE NEAR THE RUNWAY MIDPOINT.
 4. ALL RUNWAY MARKINGS ARE TO BE STRIATED WITH ALL STRIPES AND SPACES EQUAL IN WIDTH (4" TO 6").

NOTE 1:
MARKING OF RUNWAY SHOULD BE
BASED ON FAA SPECIFICATIONS.
SEE CURRENT FAA ADVISORY CIRCULAR.



- TEMPORARY
CLOSED RUNWAY MARKER NOTES:**
1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAY ITEMS.
 3. MARKERS TO BE PLACED OVER RUNWAY NUMERALS OR OFF THE RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.

REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 5, 1990

APPROVED

March 12, 1990
DATE

George A. De la Cruz
DIRECTOR, PLANNING AND
PRECONSTRUCTION
Robert M. Smith
DIRECTOR, DESIGN DIVISION

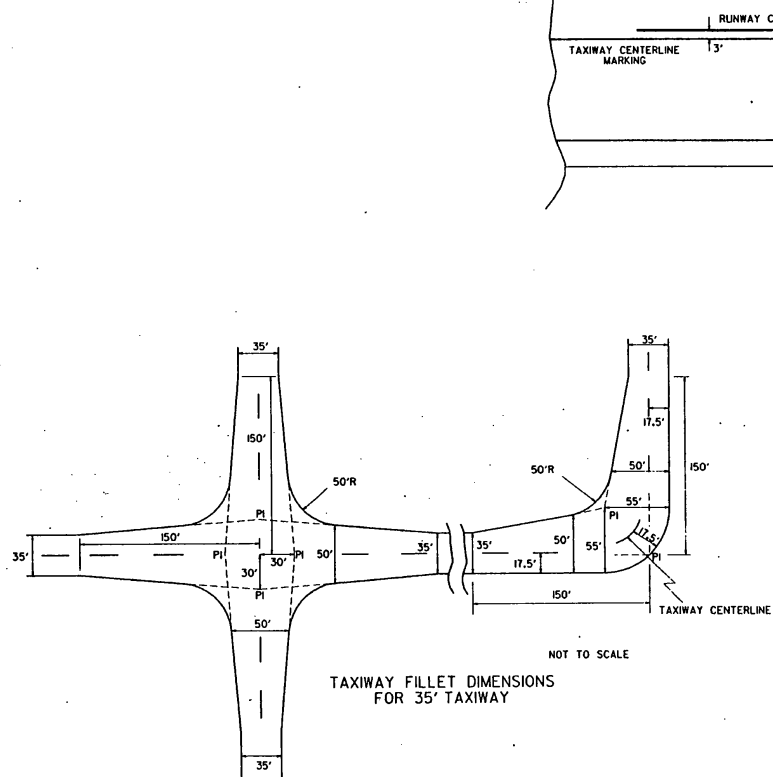
RUNWAY MARKING DETAILS



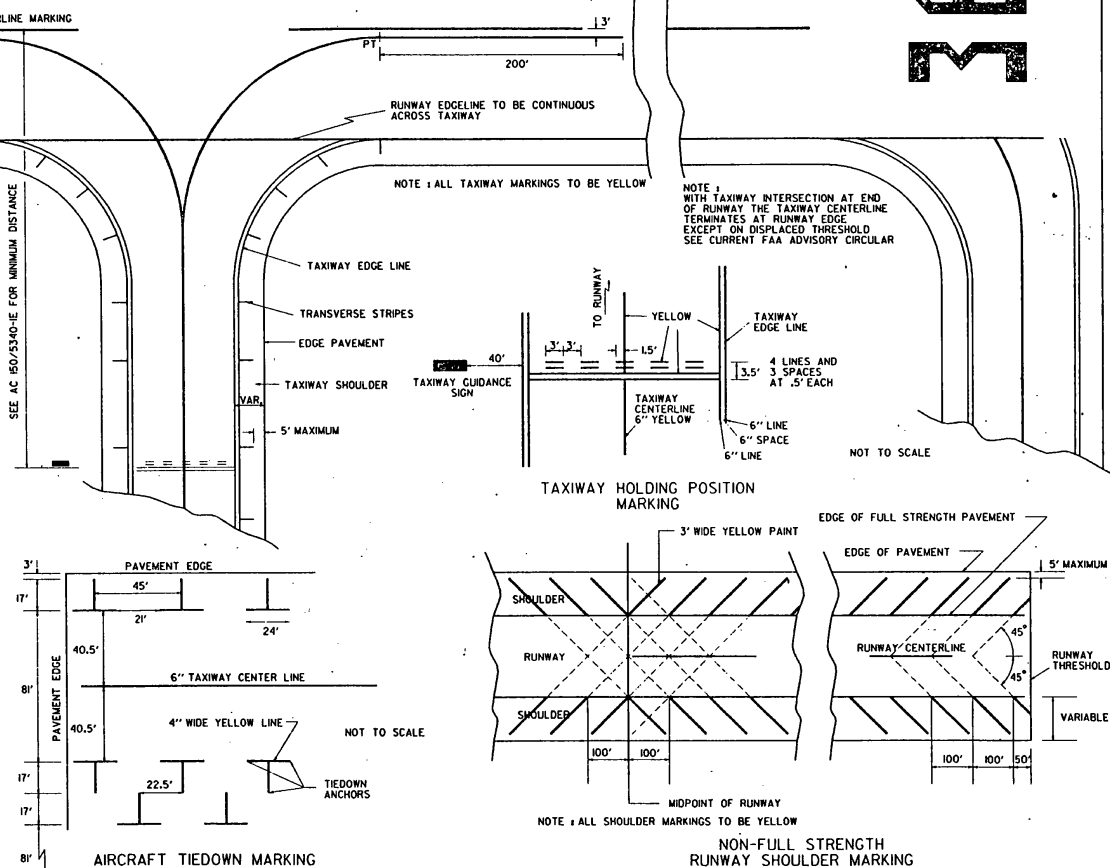
STANDARD
AP-10

NOTE :
ON LIGHT COLORED PAVEMENTS THE CONTRAST OF THE MARKINGS IS
TO BE INCREASED BY OUTLINING ALL MARKINGS WITH A 6" BLACK BORDER.

SEE STANDARD AP-10 FOR RUNWAY MARKING DETAILS



TAXIWAY FILLET DIMENSIONS
FOR 35' TAXIWAY



REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 1, 1990

APPROVED

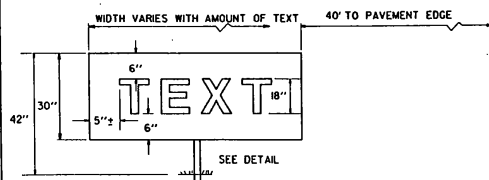
MARCH 14TH 1990
DATE

Gordon B. MacArthur
DIRECTOR, PLANNING AND
PRECONSTRUCTION
Robert M. Marbury
DIRECTOR, DESIGN DIVISION

TAXIWAY AND APRON MARKING DETAILS

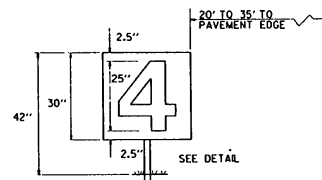
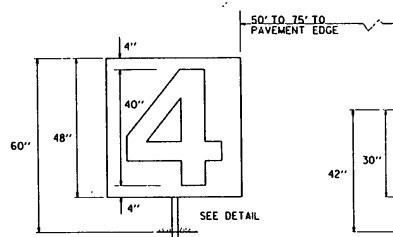


STANDARD
AP-11



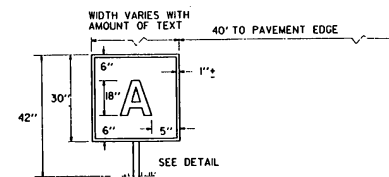
MANDATORY SIGNS

- MANDATORY SIGNS HAVE WHITE INSCRIPTIONS ON A RED BACKGROUND
- SIGNS TO BE LIGHTED WHEN USED ON CERTIFICATED AIRPORTS OR OTHER AIRPORTS HAVING INSTRUMENT OPERATIONS.
- UNLIGHTED, RETROREFLECTIVE SIGNS MAY BE USED AT GENERAL AVIATION AIRPORTS HAVING ONLY VISUAL FLIGHT (VFR) OPERATIONS.



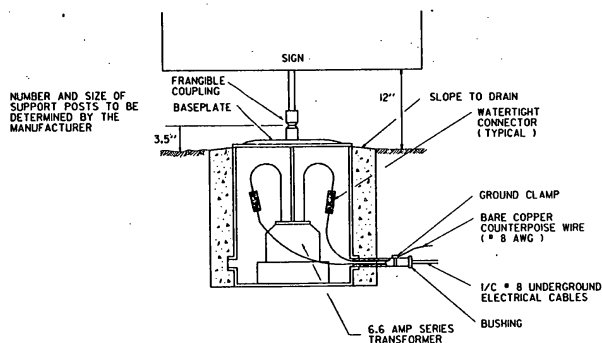
RUNWAY DISTANCE REMAINING SIGNS

- SIGNS HAVE WHITE INSCRIPTIONS ON A BLACK BACKGROUND.
- LARGE SIGNS USED IF PLACED 50 TO 75 FEET FROM PAVEMENT EDGE.
- SMALL SIGNS USED IF PLACED 20 TO 35 FEET FROM PAVEMENT EDGE.
- SIGN SIZE SHOULD BE CONSISTANT ALONG LENGTH OF EACH RUNWAY.
- ONLY LIGHTED SIGNS ARE USED FOR RUNWAY DISTANCE REMAINING SIGNS.
- SIGNS TO BE DOUBLE-SIDED, PREFERABLY LOCATED ON THE LEFT SIDE OF RUNWAY AS VIEWED FROM THE MOST OFTEN USED DIRECTION.

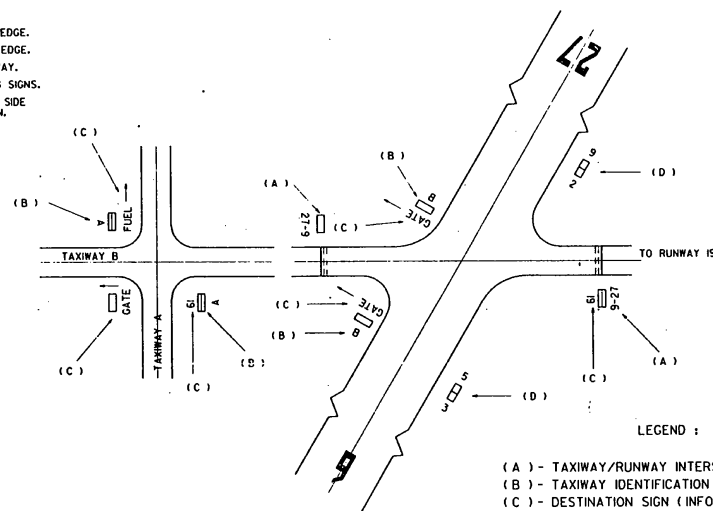


INFORMATION SIGNS

- INFORMATION SIGNS HAVE BLACK INSCRIPTIONS ON A YELLOW BACKGROUND, AND HAVE A BLACK BORDER.



BASE FOR LIGHTED SIGNS
DETAIL



LEGEND :

- (A) - TAXIWAY/RUNWAY INTERSECTION SIGN (MANDATORY TYPE)
- (B) - TAXIWAY IDENTIFICATION SIGN (INFORMATION TYPE)
- (C) - DESTINATION SIGN (INFORMATION TYPE)
- (D) - RUNWAY DISTANCE REMAINING SIGN

TYPICAL SIGN APPLICATIONS

REFER TO CURRENT FAA ADVISORY CIRCULAR .

REVISIONS AND CORRECTIONS
SHEET UPDATED MARCH 1, 1990

APPROVED

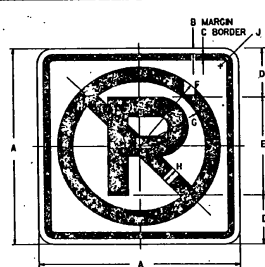
March 1, 1990
DATE

Stephen R. MacCallum
DIRECTOR, PLANNING AND
PRECONSTRUCTION
Robert M. Murphy
DIRECTOR, DESIGN DIVISION

SIGN SYSTEMS

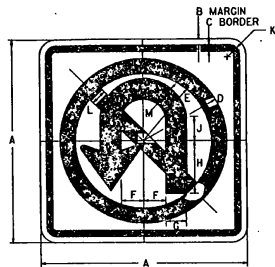


STANDARD
AP-12



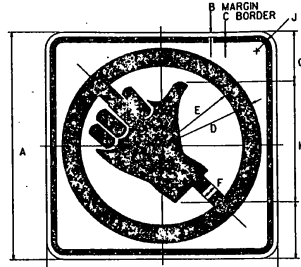
CIRCLE AND DIAGONAL - RED (REFL - RURAL)
SYMBOL AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL - RURAL)

SIGN	A	B	C	D	E	F	G	H	J
URBAN MIN. AND STD.	12	3/4	3/4	3	6 1/2	4 3/4	3 1/2	1	1/2
RURAL MIN. AND STD.	24	3/4	3/4	6	12 1/2	10 1/4	8 1/2	2	1 1/2
EXPWY.	36	3/4	3/4	9	18 1/2	15 3/4	12 3/4	3	2 1/4
FWY.	48	3/4	3/4	12	24 1/2	21	17	4	3



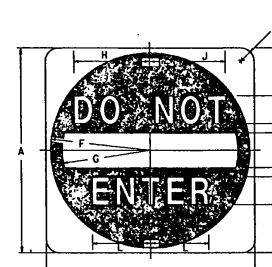
CIRCLE AND DIAGONAL - RED (REFL)
ARROW AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

SIGN	A	B	C	D	E	F	G	H	J	K	L	M
MIN. AND STD.	24	3/4	3/4	10 1/4	8 1/2	2 1/2	2 1/2	6	2 1/4	1 1/2	2	5
SPECIAL	30	1/2	3/4	13 1/4	10 3/4	3 3/4	7 1/2	2 3/4	1 1/2	2 1/4	6 1/4	
EXPWY.	36	3/4	3/4	15 3/4	12 3/4	3 3/4	9	3 3/4	2 1/4	3	7 1/2	
SPECIAL	48	3/4	3/4	21	17	5	12	4 1/2	3	4	10	



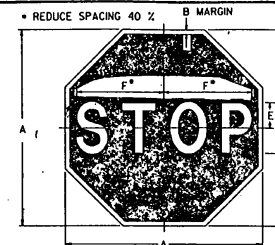
CIRCLE AND DIAGONAL - RED (REFL)
SYMBOL AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

SIGN	A	B	C	D	E	F	G	H	J
MIN.	18	3/4	3/4	7 1/4	6 3/4	1 1/2	3 3/4	10 1/2	1 1/2
STD.	24	3/4	3/4	10 1/4	8 1/2	2	5	14	1 1/2



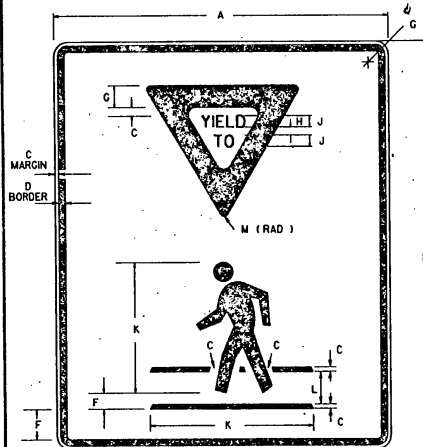
CIRCLE - RED (REFL)
SYMBOL - WHITE (REFL)
LEGEND AND BACKGROUND - WHITE (REFL)
ENCAPSULATED LENS

SIGN	A	B	C	D	E	F	G	H	J	K	L
MIN. AND STD.	30	6 1/4	4D	2	5	14 1/2	12 1/2	9 3/4	10	1 1/4	1 3/4
EXPWY.	36	7 1/2	5D	2 1/2	6	17 1/2	15	12	12 1/2	2 1/4	2 3/4
SPECIAL	48	11	6D	3	8	23 1/2	20	14 1/2	15	3	3 1/4



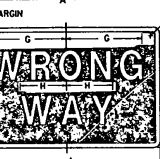
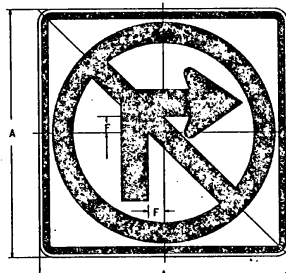
COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)
ENCAPSULATED LENS

SIGN	A	B	C	D	E	F
BIKE	18	3/4	6	6C	3	7 1/4
MIN.	24	3/4	8	8C	4	10
STD.	30	3/4	10	10C	5	12 1/4
EXPWY.	36	3/4	12	12C	6	15
SPECIAL	48	1 1/4	16	16C	8	20



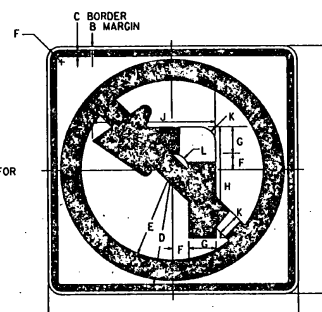
COLORS
LEGEND, SYMBOL, BORDER - BLACK
BACKGROUND - WHITE (REFL)
TRIANGLE - RED (REFL)

SIGN	A	B	C	D	E	F	G	H	J	K	L	M
SMALL	18	24	3/4	3/4	11	3/4	1/4	3/4	9	1 1/4	1 1/4	
LARGE	24	30	1 1/4	1 1/4	13 1/4	1 1/4	1 1/4	2	12	1 1/4	2 3/4	



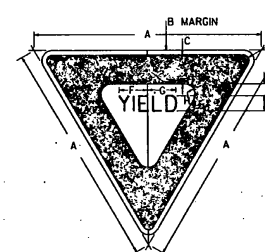
COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)
ENCAPSULATED LENS

SIGN	A	B	C	D	E	F	G	H	J
MIN.	30	18	3/4	3	5D	2	8 1/4	6 1/4	1 1/2
STD.	36	24	1 1/4	4D	3	13 1/4	8 1/4	6 1/4	1 1/2
SPECIAL	42	30	1 1/4	5	4D	4	17 1/4	10 1/4	1 1/2



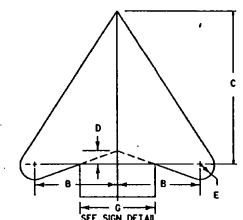
COLORS
CIRCLE AND DIAGONAL - RED (REFL)
ARROW AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

SIGN	A	B	C	D	E	F	G	H	J	K	L
MIN. AND STD.	24	3/4	3/4	10 1/4	8 1/2	2 1/2	2 1/2	6 1/4	1 1/2	2	1 1/2
SPECIAL	30	1/2	3/4	13 1/4	10 3/4	3 3/4	7 1/2	2 3/4	1 1/2	2 1/4	6 1/4
EXPWY.	36	3/4	3/4	15 3/4	12 3/4	3 3/4	9	3 3/4	2 1/4	3	7 1/2
SPECIAL	48	3/4	3/4	21	17	5	12	4 1/2	3	4	10



COLORS
LEGEND AND BORDER - RED (REFL)
BACKGROUND - WHITE (REFL)
ENCAPSULATED LENS

SIGN	A	B	C	D	E	F	G	H	J
BIKE	24	3/4	3/4	10 1/4	8 1/2	2 1/2	2 1/2	6 1/4	1 1/2
MIN.	30	3/4	3/4	13 1/4	10 3/4	3 3/4	7 1/2	2 3/4	1 1/2
STD.	36	3/4	3/4	15 3/4	12 3/4	3 3/4	9	3 3/4	2 1/4
EXPWY.	48	1	6	24	4C	6 1/4	5 1/4	2	3
SPECIAL	60	1 1/2	8	3 1/2	5C	7 1/4	7 1/4	2 1/4	4



ARROW HEAD	SIZE	B	C	D	E
MIN. AND STD.	24x24	2 1/4	5 1/4	3/4	1 1/2
SPECIAL	30x30	3 1/4	6 1/4	1 1/4	2 1/4
EXPWY.	36x36	4 1/4	7 1/4	1 3/4	3 1/4
SPECIAL	48x48	5 1/4	10 1/4	2 1/4	4 1/4

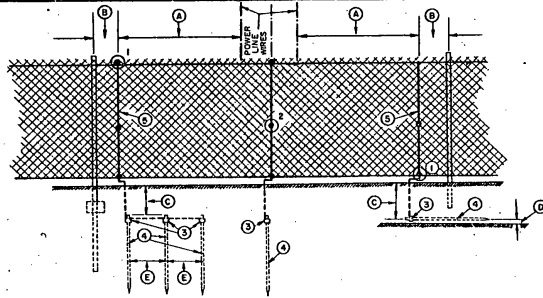
COLORS

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS

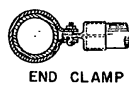
THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY FOLLOWING OF THE MINIMUM THICKNESS NOTED.

24" x 24"	36" x 24"
30" x 30"	36" x 36"
36" x 36"	48" x 48"
48" x 48"	60" x 60"
60" x 60"	72" x 72"
72" x 72"	84" x 84"
84" x 84"	96" x 96"
96" x 96"	108" x 108"
108" x 108"	120" x 120"
120" x 120"	132" x 132"
132" x 132"	144" x 144"
144" x 144"	156" x 156"
156" x 156"	168" x 168"
168" x 168"	180" x 180"
180" x 180"	192" x 192"
192" x 192"	204" x 204"
204" x 204"	216" x 216"
216" x 216"	228" x 228"
228" x 228"	240" x 240"
240" x 240"	252" x 252"
252" x 252"	264" x 264"
264" x 264"	276" x 276"
276" x 276"	288" x 288"
288" x 288"	300" x 300"
300" x 300"	312" x 312"
312" x 312"	324" x 324"
324" x 324"	336" x 336"
336" x 336"	348" x 348"
348" x 348"	360" x 360"
360" x 360"	372" x 372"
372" x 372"	384" x 384"
384" x 384"	396" x 396"
396" x 396"	408" x 408"
408" x 408"	420" x 420"
420" x 420"	432" x 432"
432" x 432"	444" x 444"
444" x 444"	456" x 456"
456" x 456"	468" x 468"
468" x 468"	480" x 480"
480" x 480"	492" x 492"
492" x 492"	504" x 504"
504" x 504"	516" x 516"
516" x 516"	528" x 528"
528" x 528"	540" x 540"
540" x 540"	552" x 552"
552" x 552"	564" x 564"
564" x 564"	576" x 576"
576" x 576"	588" x 588"
588" x 588"	600" x 600"
600" x 600"	612" x 612"
612" x 612"	624" x 624"
624" x 624"	636" x 636"
636" x 636"	648" x 648"
648" x 648"	660" x 660"
660" x 660"	672" x 672"
672" x 672"	684" x 684"
684" x 684"	696" x 696"
696" x 696"	708" x 708"
708" x 708"	720" x 720"
720" x 720"	732" x 732"
732" x 732"	744" x 744"
744" x 744"	756" x 756"
756" x 756"	768" x 768"
768" x 768"	780" x 780"
780" x 780"	792" x 792"
792" x 792"	804" x 804"
804" x 804"	816" x 816"
816" x 816"	828" x 828"
828" x 828"	840" x 840"
840" x 840"	852" x 852"
852" x 852"	864" x 864"
864" x 864"	876" x 876"
876" x 876"	888" x 888"
888" x 888"	900" x 900"
900" x 900"	912" x 912"
912" x 912"	924" x 924"
924" x 924"	936" x 936"
936" x 936"	948" x 948"
948" x 948"	960" x 960"
960" x 960"	972" x 972"
972" x 972"	984" x 984"
984" x 984"	996" x 996"
996" x 996"	1008" x 1008"
1008" x 1008"	1020" x 1020"
1020" x 1020"	1032" x 1032"
1032" x 1032"	1044" x 1044"
1044" x 1044"	1056" x 1056"
1056" x 1056"	1068" x 1068"
1068" x 1068"	1080" x 1080"
1080" x 1080"	1092" x 1092"
1092" x 1092"	1104" x 1104"
1104" x 1104"	1116" x 1116"
1116" x 1116"	1128" x 1128"
1128" x 1128"	1140" x 1140"
1140" x 1140"	1152" x 1152"
1152" x 1152"	1164" x 1164"
1164" x 1164"	1176" x 1176"
1176" x 1176"	1188" x 1188"
1188" x 1188"	1200" x 1200"
1200" x 1200"	1212" x 1212"
1212" x 1212"	1224" x 1224"
1224" x 1224"	1236" x 1236"
1236" x 1236"	1248" x 1248"
1248" x 1248"	1260" x 1260"
1260" x 1260"	1272" x 1272"
1272" x 1272"	1284" x 1284"
1284" x 1284"	1296" x 1296"
1296" x 1296"	1308" x 1308"
1308" x 1308"	1320" x 1320"
1320" x 1320"	1332" x 1332"
1332" x 1332"	1344" x 1344"
1344" x 1344"	1356" x 1356"
1356" x 1356"	1368" x 1368"
1368" x 1368"	1380" x 1380"
1380" x 1380"	1392" x 1392"
1392" x 1392"	1404" x 1404"
1404" x 1404"	1416" x 1416"
1416" x 1416"	1428" x 1428"
1428" x 1428"	1440" x 1440"
1440" x 1440"	1452" x 1452"
1452" x 1452"	1464" x 1464"
1464" x 1464"	1476" x 1476"
1476" x 1476"	1488" x 1488"
1488" x 1488"	1500" x 1500"
1500" x 1500"	1512" x 1512"
1512" x 1512"	1524" x 1524"
1524" x 1524"	1536" x 1536"
1536" x 1536"	1548" x 1548"
1548" x 1548"	1560" x 1560"
1560" x 1560"	1572" x 1572"
1572" x 1572"	1584" x 1584"
1584" x 1584"	1596" x 1596"
1596" x 1596"	1608" x 1608"
1608" x 1608"	1620" x 1620"
1620" x 1620"	1632" x 1632"
1632" x 1632"	1644" x 1644"
1644" x 1644"	1656" x 1656"
1656" x 1656"	1668" x 1668"
1668" x 1668"	1680" x 1680"
1680" x 1680"	1692" x 1692"
1692" x 1692"	1704" x 1704"
1704" x 1704"	1716" x 1716"
1716" x 1716"	1728" x 1728"
1728" x 1728"	1740" x 1740"
1740" x 1740"	1752" x 1752"
1752" x 1752"	1764" x 1764"
1764" x 1764"	1776" x 1776"
1776" x 1776"	1788" x 1788"
1788" x 1788"	1800" x 1800"
1800" x 1800"	1812" x 1812"
1812" x 1812"	1824" x 1824"
1824" x 1824"	1836" x 1836"
1836" x 1836"	1848" x 1848"
1848" x 1848"	1860" x 1860"
1860" x 1860"	1872" x 1872"
1872" x 1872"	1884" x 1884"
1884" x 1884"	1896" x 1896"
1896" x 1896"	1908" x 1908"
1908" x 1908"	1920" x 1920"
1920" x 1920"	1932" x 1932"
1932" x 1932"	1944" x 1944"
1944" x 1944"	1956" x 1956"
1956" x 1956"	1968" x 1968"
1968" x 1968"	1980" x 1980"
1980" x 1980"	1992" x 1992"
1992" x 1992"	2004" x 2004"
2004" x 2004"	201

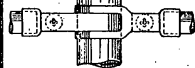


- ① 25'-0" OR TO 10' ± 0.5' FROM NEAREST FENCE POST (AT RIGHT ANGLE TO POWER LINE)
- ② MAXIMUM DISTANCE 10' (± 0.5')
- ③ MINIMUM DISTANCE 10' (± 1.0')
- ④ 2'-0" (± 0.5')
- ⑤ MINIMUM DISTANCE 6'-0"
- ⑥ CONNECTOR, SUITABLE FOR WIRE GAUGES UTILIZED AND CONNECTOR, SUITABLE FOR DISSIMILAR METALS
- ⑦ GROUND ROD CLAMP
- ⑧ COPPER CLAD STEEL CORE GROUND ROD 5/8" X 6'-0"
- ⑨ CONDUCTOR NO. 6 AWG COPPER SOFT DRAWN OR NO. 4 AWG ALUMINUM

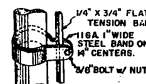
INSTALLATION METHOD OF PROTECTIVE GROUNDING AT POWER LINE CROSSINGS



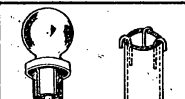
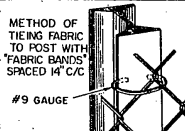
END CLAMP



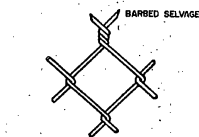
CORNER CLAMP (ADJUSTABLE)



TENSION BAR BAND

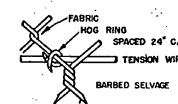


BALL TOP

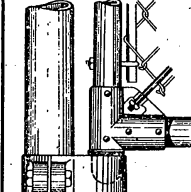


CHAIN LINK FABRIC

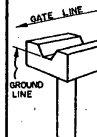
9 GAUGE STEEL WIRE
2' MESH



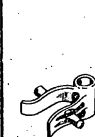
HOG RING FASTENER



BOTTOM CORNER &
HINGE FOR DRIVE GATE



CENTER STOP
FOR
TWO PANEL
GATES



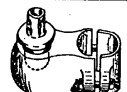
FORK LATCH



HOLDBACK
TO HOLD A
DRIVE GATE OPEN



TOP HINGE



WALK GATE
BOTTOM HINGE

GENERAL NOTES (ZINC-COATED STEEL FABRIC ALUMINUM-COATED STEEL FABRIC VINYL COATED FABRIC)

HEIGHT... AS NOTED ON PLANS.
FABRIC... CHAIN LINK, # 9 GAUGE WIRE, WOVEN IN A 2' MESH. TOP AND BOTTOM SELVAGES TO BE BARBED. THE BOTTOM SELVAGE TO BE 2" ABOVE THE GROUND LINE, THE TOP SELVAGE TO BE 1" ABOVE THE TENSION WIRE. WHERE FENCE IS 4 FT. THE TOP EDGE SHALL BE KNUCKLED.
LINE POSTS... 2" X 2 1/4" H" COLUMN, WEIGHT 4.1 LBS. PER FOOT OR 2 3/8" O.D. PIPE, WEIGHT 3.65 LBS. PER FOOT OR APPROVED EQUAL FOR FENCE 6'-0" AND OVER IN HEIGHT. FOR FENCE LESS THAN 6'-0" IN HEIGHT, 1 1/2" COLUMNS WEIGHING 2.70 LBS PER FOOT SHALL BE USED.
TERMINAL POSTS... END, CORNER AND PULL POSTS, SHALL BE 2 3/8" O.D. PIPE, WEIGHING 5.79 LBS. PER FOOT FOR FENCE 6'-0" AND OVER IN HEIGHT. FOR FENCE LESS THAN 6'-0" IN HEIGHT, 2 3/8" O.D. PIPE, WEIGHING 3.65 LBS PER FOOT, SHALL BE USED.
POST SPACING... POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10 FEET CENTER TO CENTER EXCEPT GATE POSTS, WHICH SHALL BE SPACED ACCORDING TO THE REQUIRED GATE OPENING.
POST FOOTINGS... ALL POSTS SHALL BE SET TO A DEPTH OF 2 FEET 10 INCHES IN A 10" DIAMETER CYLINDRICAL SHAPED HOLE 8'-6" DEEP, FILLED WITH CONCRETE.
ALL FITTINGS AND HARDWARE SHALL BE AS SHOWN ON THIS SHEET OR EQUAL.

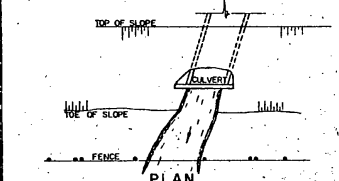
THE EXPOSED SURFACE OF ALL TOPS OF FOOTINGS TO BE SLOPED TO SHED WATER AND PROVIDE A NEAT APPEARANCE WHEN COMPLETED.

FABRIC TIES... FABRIC TO BE FASTENED TO POSTS AND GATE FRAMES WITH # 9 GAUGE WIRE.
TRUSS RODS... SHALL BE 3/8" DIAMETER DIAGONAL BARS WITH TURNBUCKLE.
BRACE RODS... SHALL BE 1/2" O.D. PIPE.
TENSION BARS... SHALL BE FLAT 1/4" X 3/4" BARS WITH SQUARE EDGES.
TENSION WIRE... SHALL BE # 8 GAUGE WIRE ATTACHED 1" BELOW TOP SELVAGE AND 2" ABOVE BOTTOM SELVAGE OF FABRIC BY MEANS OF HOG RINGS ON 24" CENTERS.

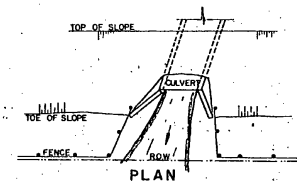
GATES... GATE FRAMES SHALL BE 1 1/2" O.D. PIPE ASSEMBLED BY WELDING, RIVETING OR BOLTING AND TO BE FURNISHED WITH ALL THE NECESSARY FITTINGS OVER 6'-0".
GATE FRAMES SHALL BE 1 1/2" O.D. PIPE ASSEMBLED BY WELDING, RIVETING OR BOLTING AND TO BE FURNISHED WITH ALL THE NECESSARY FITTINGS 6'-0" AND LESS.

END SECTION ASSEMBLY... TO BE ERRECTED ON A MAXIMUM OF 200 FEET CENTER TO CENTER.

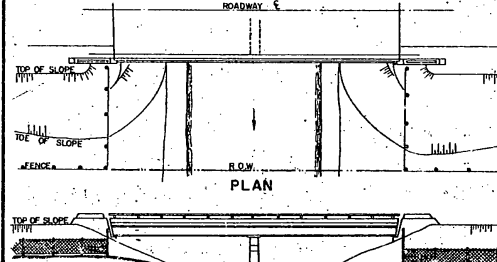
THE WEIGHT TOLERANCE IS 5 PER CENT ABOVE AND 5 PER CENT BELOW. THE TUBULAR SIZES ARE NOMINAL.



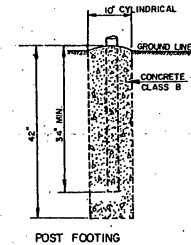
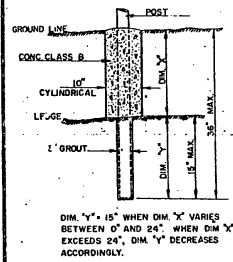
CROSSING AT STREAMS



ELEVATION AT CULVERT

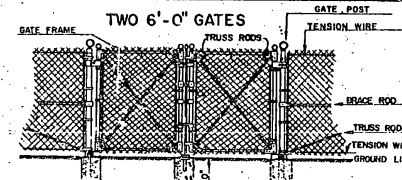


ELEVATION AT BRIDGE WITH PARAPET WALLS

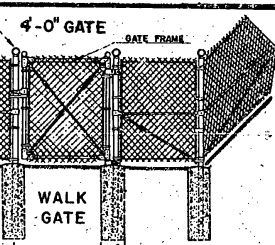
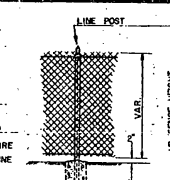


POST FOOTING

WHERE FENCE LINE HAS A CHANGE IN DIRECTION OF 15 DEGREES OR MORE, CORNER POSTS WITH BRACING SHALL BE ERRECTED.
WHERE ANGLE IN FENCE LINE IS LESS THAN 15 DEGREES AND EXISTING CONDITIONS REQUIRE TERMINAL POSTS, THEY SHALL BE ERRECTED AS DIRECTED BY THE ENGINEER.



DRIVE GATE



WALK GATE

POSTS FOR SINGLE SWING GATE		
OPENING	POST SIZE	WGT./L.F.
UP TO 6'	2 3/8" O.D.	5.79 lbs.
OVER 6' TO 10'	2 3/8" O.D.	5.79 lbs.
OVER 10' TO 15'	2 3/8" O.D.	10.87 lbs.
OVER 15' TO 18'	2 3/8" O.D.	24.70 lbs.

REVISIONS AND CORRECTIONS
JULY 28, 1975 - VINYL COATED FABRIC ADDED
FEBRUARY 1, 1979 - CHANGE TOP RAIL TO TENSION WIRE.

APPROVED DATE Dec. 6, 1971

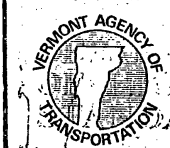
R.H. Cinnell
CHIEF ENGINEER

E.H. Stinchey
ASST. CHIEF ENGINEER

D.M. Lane
HIGHWAY ENGINEER

DRAWN BY AJA
TRACED BY AJA

CHAIN-LINK FENCE (TYPE I)
DRIVE GATE FOR CHAIN-LINK FENCE (TYPE I)
WALK GATE FOR CHAIN-LINK FENCE (TYPE I)



STANDARD

F-2