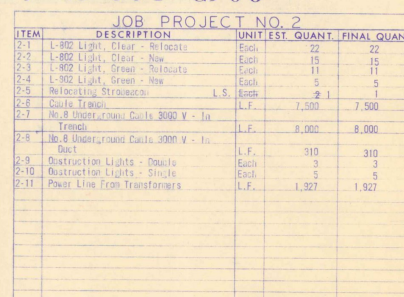
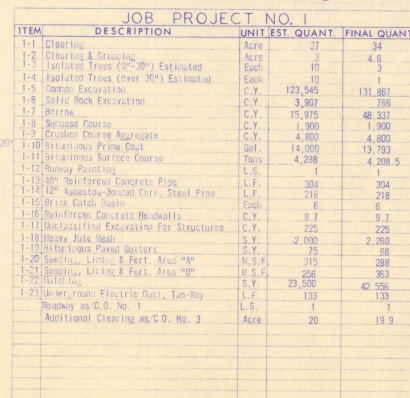


INDEX OF SHEETS	
SHEET	TITLE
1	TITLE PAGE
2	SCOPE OF WORK
3	TYPICAL SECTIONS
4	GROUTING & DRAINAGE - PLAN & PROFILE
5	GRAVING & DRAINAGE - PLAN & PROFILE
6	INTERSECTION OF RUNWAYS
7	DRAINAGE DETAILS
8-20	4" X 8" 304" REINFORCED CONCRETE PIPE
21	RUNWAY CROSS SECTIONS
22	RUNWAY LIGHTING
23	OBSTRUCTION LIGHTING & POWER POLE DETAILS
24-29	OBSTRUCTION LIGHTING
30	GROUND OBSTRUCTIONS REMOVAL - RUNWAY & EASTBOUND
31	GROUND OBSTRUCTIONS REMOVAL - NORTHERLY CLEAR ZONE

F.A.A.P. PROJ. NO. 9-43-004-C906



DUFRESNE-HENRY ENGINEERING CORP.

AS BUILT PLANS



Vermont Aeronautics Board

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
TITLE PAGE

DUFRESNE-HENRY
Engineering Corporation



DUFRE

REGISTERED PROFESSIONAL

CIVIL & SANITARY ENGINEER	
DRAWING NO.	69-1242

SURVEY CHIEF		
PLOTTED BY	J. W.	10-70

TRACED BY	D. P.	10-28-
-----------	-------	--------

CHECKED BY W.R. 10-28-

ESNE-HENRY
Engineering Corporation

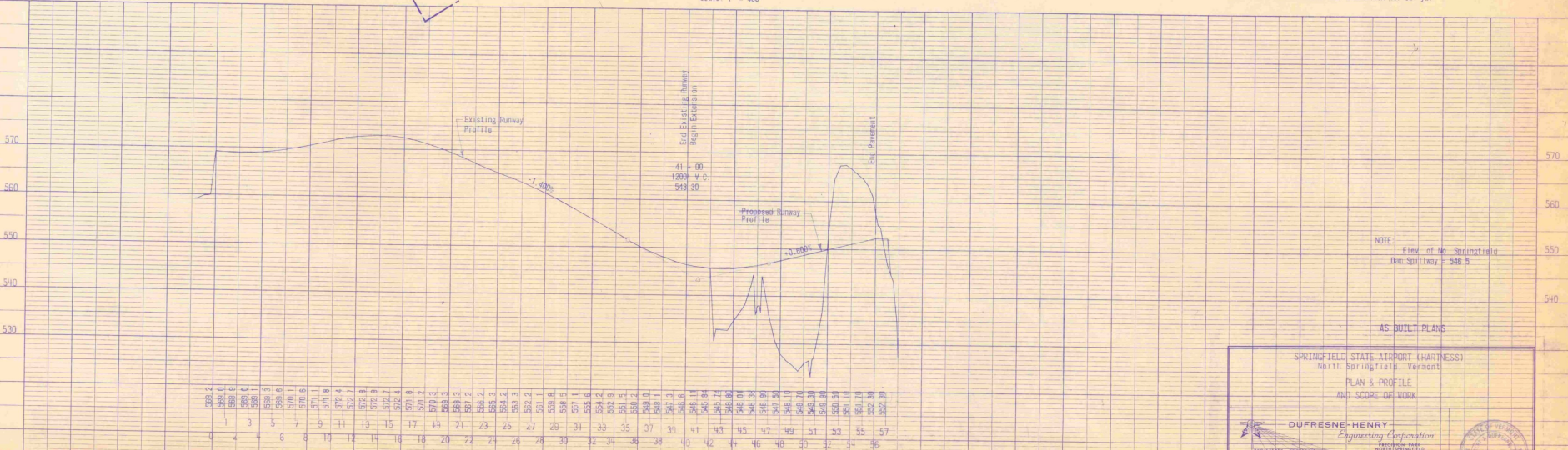
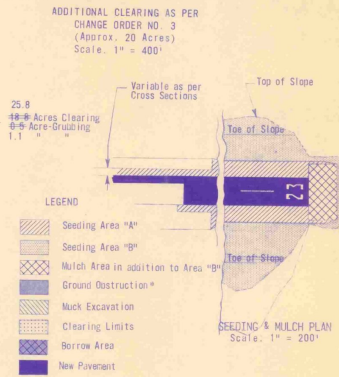
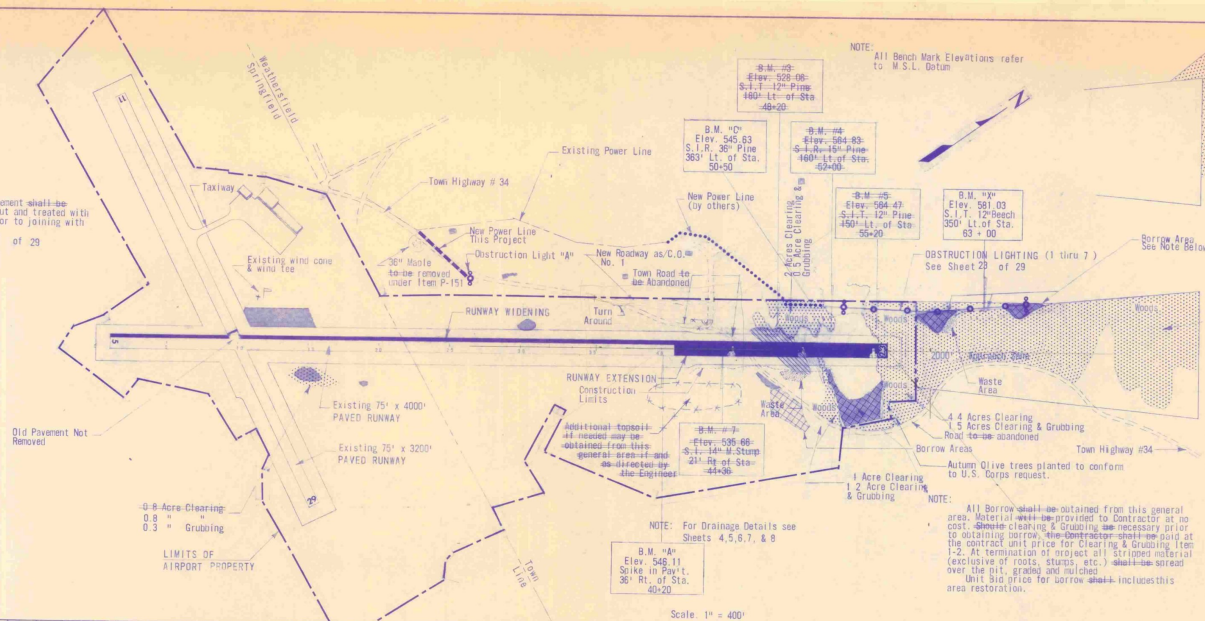
PRECISION PARK
NORTH SPRINGFIELD
MASSACHUSETTS

APPROVED *Blair Dufresne*

PLAN	DATE
REVISIONS	
NOTE BOOK	
PLANNING	
DESIGN	
CONSTRUCTION	
AS BUILT	

PROFILE	DATE
REVISIONS	
NOTE BOOK	
PLANNING	
DESIGN	
CONSTRUCTION	
AS BUILT	

NOTE: Old pavement shall be vertically cut and treated with emulsion prior to joining with new pavement. See Sheet 3 of 29.



SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

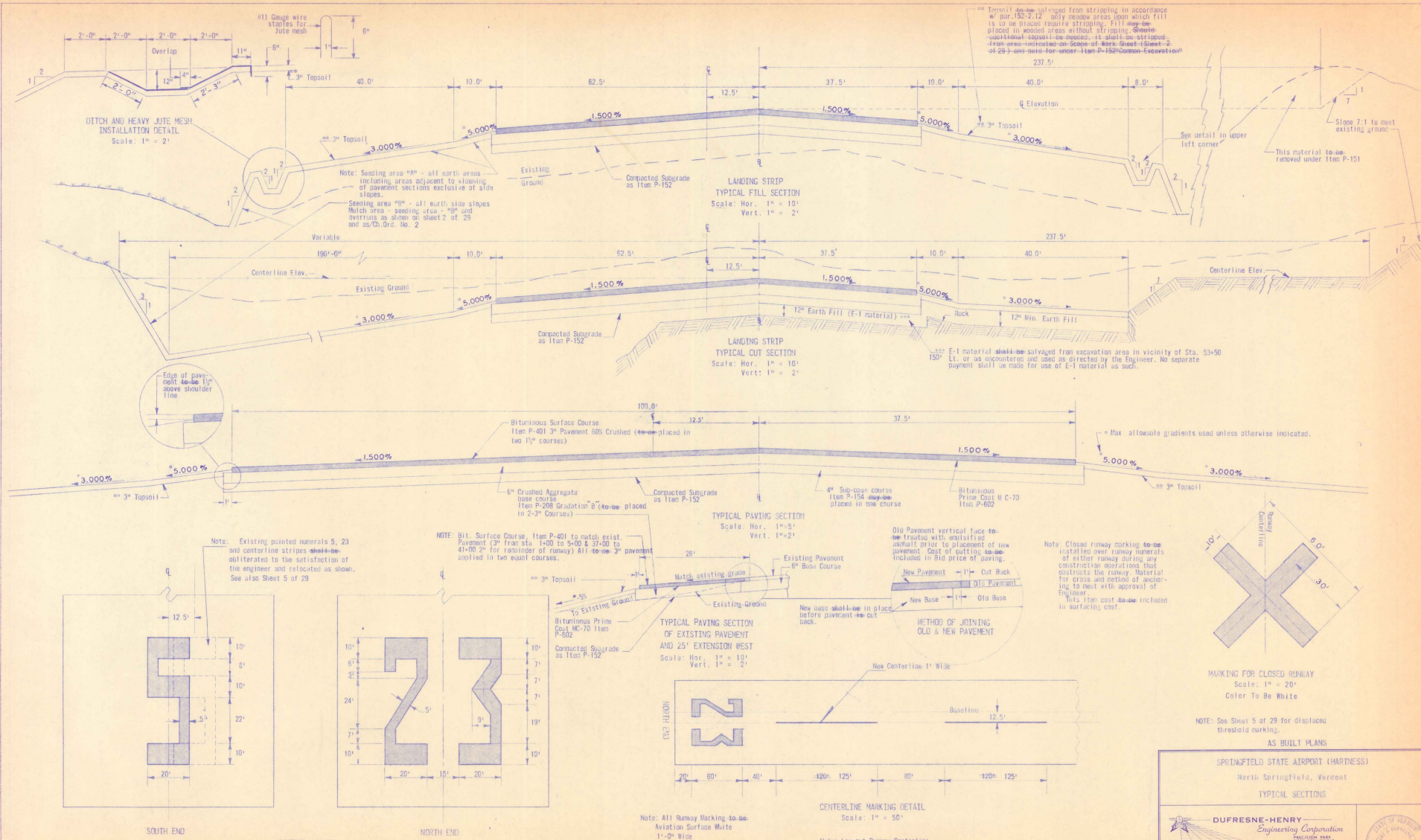
PLAN & PROFILE
AND SCOPE OF WORK

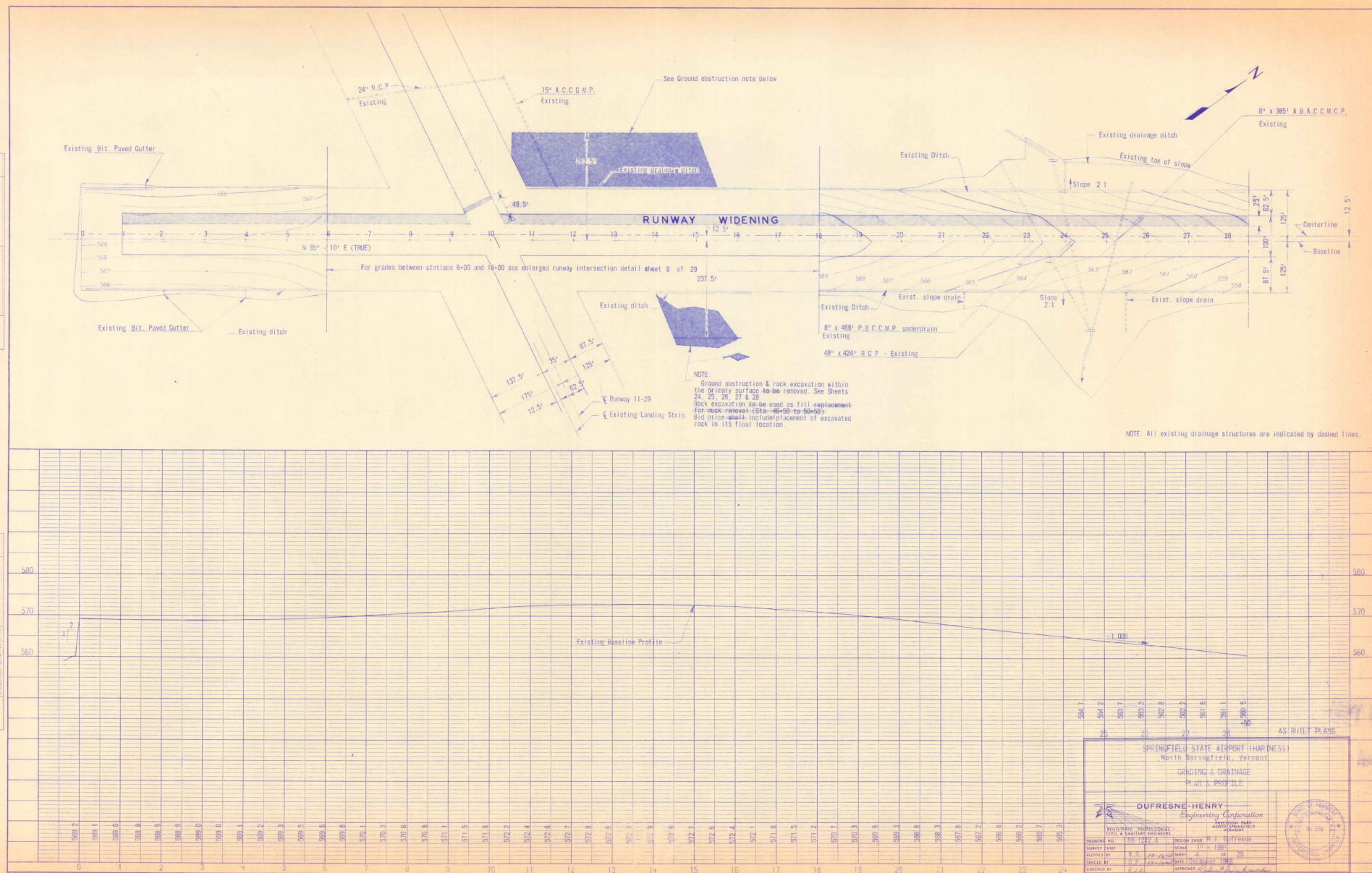
DUFRESNE-HENRY
Engineering Corporation

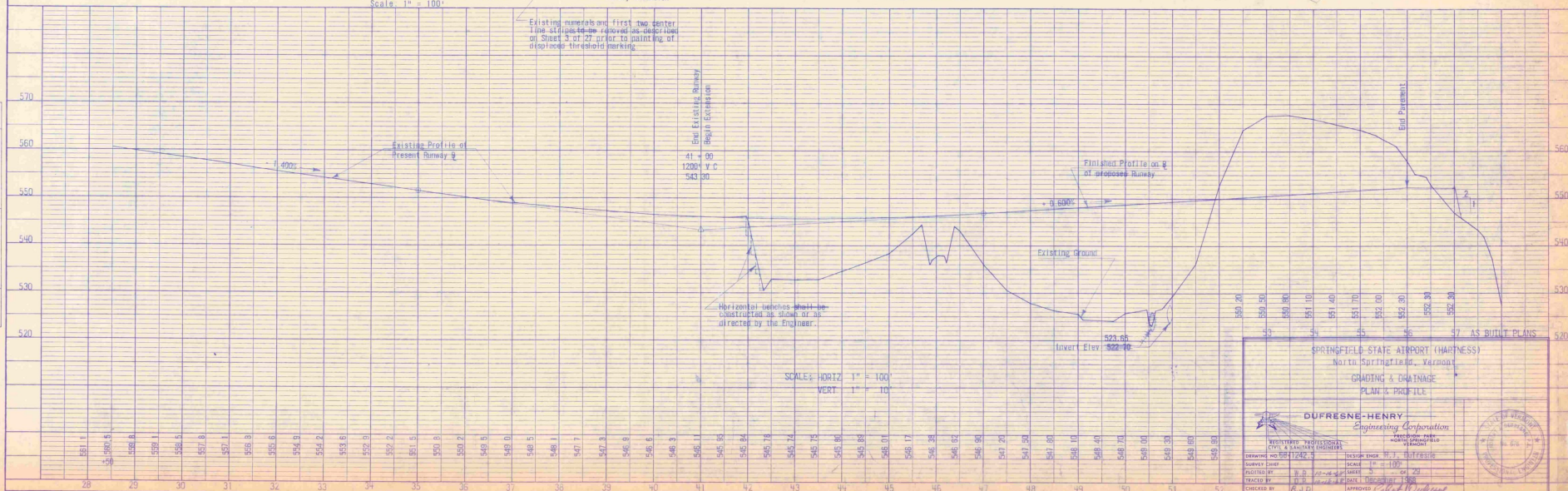
DESIGNED BY: D. H. DUFRESNE
CHECKED BY: J. H. HENRY
PLANNED BY: J. H. HENRY
DATE: 12-16-55
SCALE: 1" = 400'

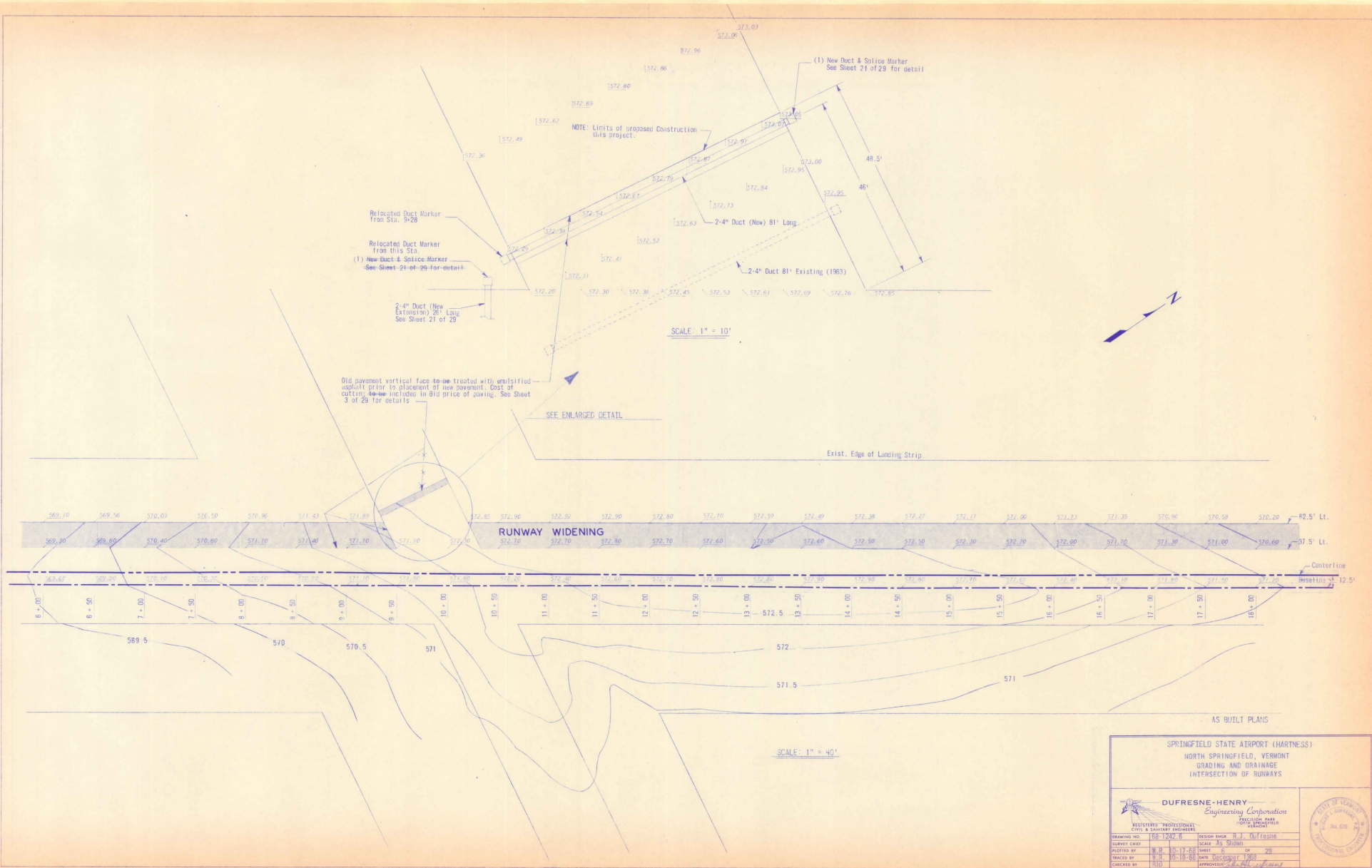
NOTED BY: J. H. HENRY
DATE: 12-16-55
SCALE: 1" = 400'

APPROVED BY: J. H. HENRY
DATE: 12-16-55
SCALE: 1" = 400'









AS BUILT PLANS

SCALE: 1" = 40'

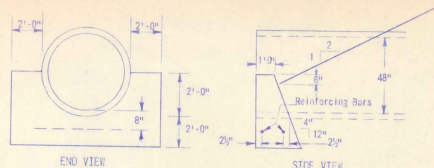
SPRINGFIELD STATE AIRPORT (HARTNESS)

NORTH SPRINGFIELD, VERMONT

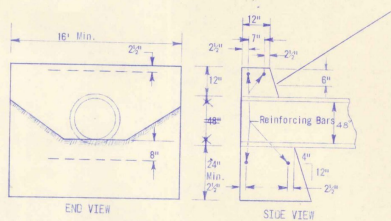
GRADING AND DRAINAGE

INTERSECTION OF RUNWAYS

DUFRESNE-HENRY <i>Engineering Corporation</i>		
REGISTERED PROFESSIONAL CIVIL & SANITARY ENGINEER		
DRAWING NO.	100-1242-B	DESIGN ENGINEER
SURVEY CHIEF	R. J. Dufresne	SCALE
DESIGNED BY	R. J. Dufresne	DATE
TRACED BY	R. J. Dufresne	DATE
CHECKED BY	R. J. Dufresne	DATE
APPROVED		APPROVED

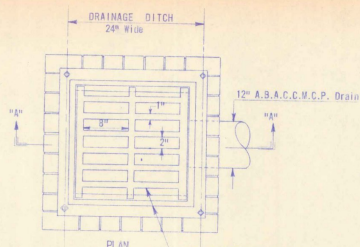


CRADLE CONCRETE HEADWALL DETAIL
CRM = 1.7 c.y.

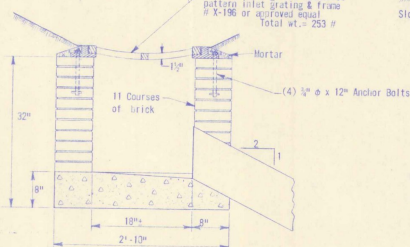


STRAIGHT CONCRETE HEADWALL DETAIL
CRM = 8.0 c.y.

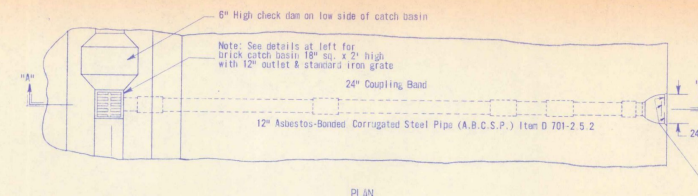
NOTE: All reinforcing steel to be 5/8" diameter deformed bars.



PLAN
Standard Springfield Foundries pattern inlet grating & frame # X-196 or approved equal
Total wt. 253 #



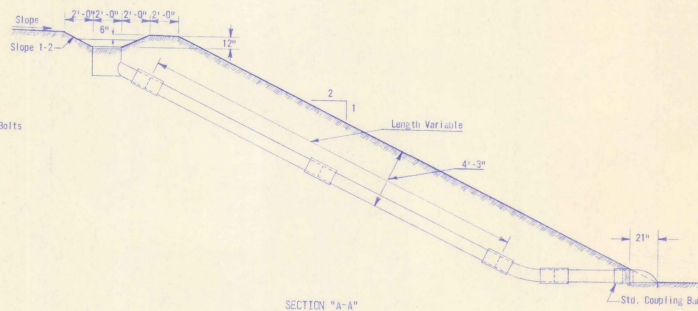
SECTION "A-A"
BRICK CATCH BASIN
Not to Scale



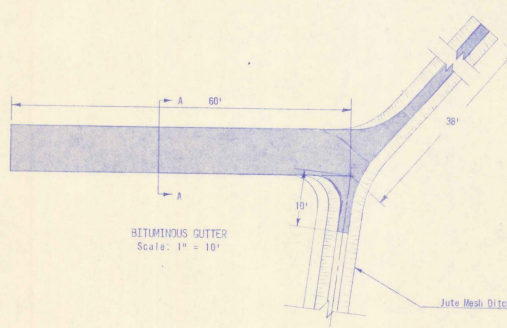
PLAN

16 Ga. Standard metal outlet end section with 4" high metal baffles welded in place as shown.

Slope Drain Location		
Sta.	LT	RT
43 + 00	26'	28'
47 + 00	36'	0
48 + 00	0	30'
50 + 50	46'	0
51 + 00	0	52'

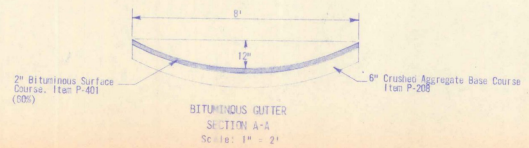


SECTION "A-A"
TYPICAL DRAIN DETAIL
Scale: 1/4" = 1'-0"



BITUMINOUS GUTTER
Scale: 1" = 10"

NOTE:
All ditch cut slopes 2:1
Bituminous gutters shall receive two coats of asphalt emulsion and base coat of 1/2" or 1" of equal. Sealant shall be applied after pavement has cured for at least 5 days. Method and rate of application shall be as recommended by the product manufacturer. The cost of this work shall be included in the bid price for "Bituminous Gutter".



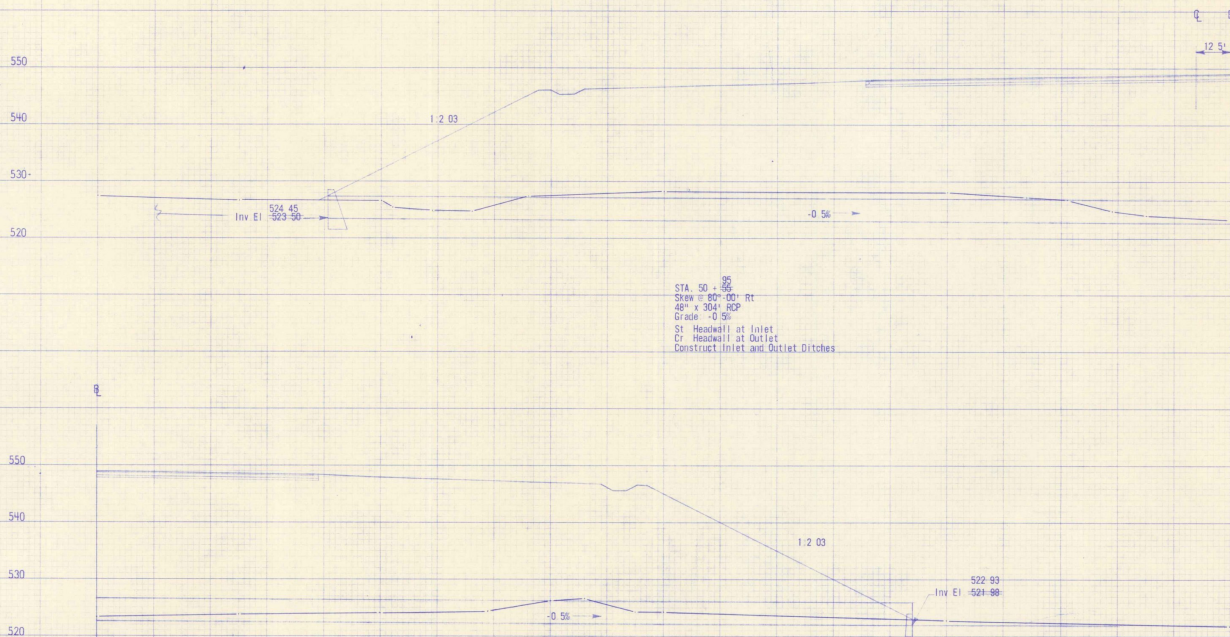
SECTION A-A
BITUMINOUS GUTTER
Scale: 1" = 2"

AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

DRAINAGE DETAILS

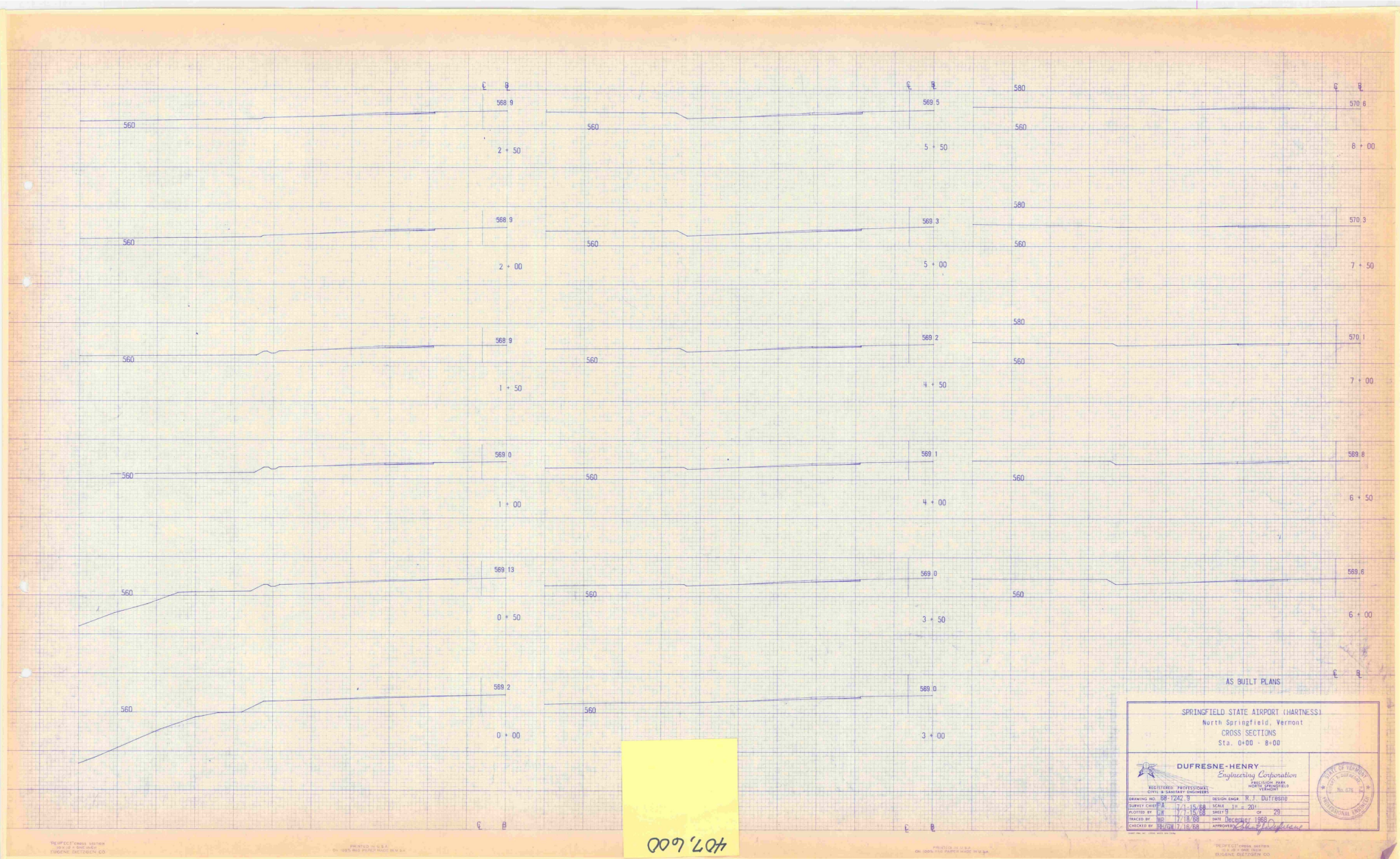
		STATE OF VERMONT PROFESSIONAL ENGINEER No. 576	
DRAWING NO. 100-1252.7	DESIGNER J. J. DUFRESNE	SCALE AS SHOWN	SHEET 23
SURVEY CHECK P. J. DUFRESNE	CHECKED BY J. J. DUFRESNE	DATE 10-1-58	APPROVED J. J. DUFRESNE



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS) No. Springfield, Vermont 48" x 304' RCP STA. 50 + 55			
DUFRESNE-HENRY Engineering Corporation PROFESSIONAL ENGINEERS 100 N. Main Street Springfield, Vermont 05156			
DRAWING NO.	88-1242-8	DESIGN ENGINEER	R. J. DUFFENBERG
CURVE DATA	11-25-88	SCALE	1" = 10'
PLOTTED BY	RE 11-25-88	DATE	8-29-88
CHECKED BY	RE 11-25-88	DATE	8-29-88
CHECKED BY	RE 11-25-88	DATE	8-29-88

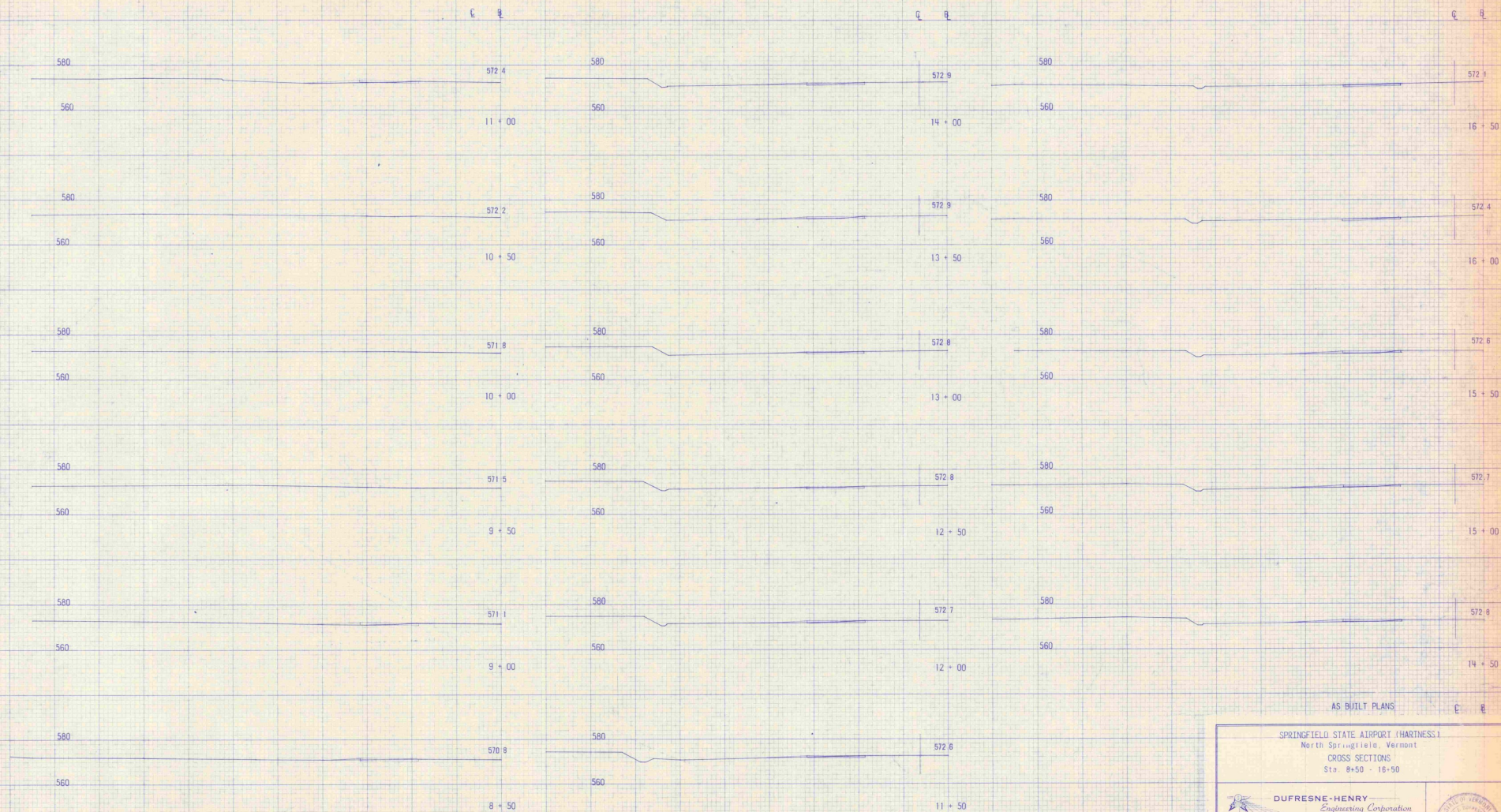




AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS) North Springfield, Vermont CROSS SECTIONS Sta. 0+00 - 8+00			
DUFRESNE-HENRY Engineering Corporation REGISTERED PROFESSIONAL CIVIL & SANITARY ENGINEER		DESIGNER H. J. DUFRESNE	
DRAWING NO. 108-1242-3 SURVEY CHECKED BY 12/15/68 PLOTTED BY H. J. 12/15/68 CHECKED BY H. J. 12/15/68	SCALE 1" = 20' SHEET 9 OF 20 DATE DECEMBER 1968 APPROVED BY <i>H. J. Dufresne</i>	STATE OF VERMONT REGISTERED PROFESSIONAL ENGINEER No. 1274	

407,600



AS BUILT PLANS

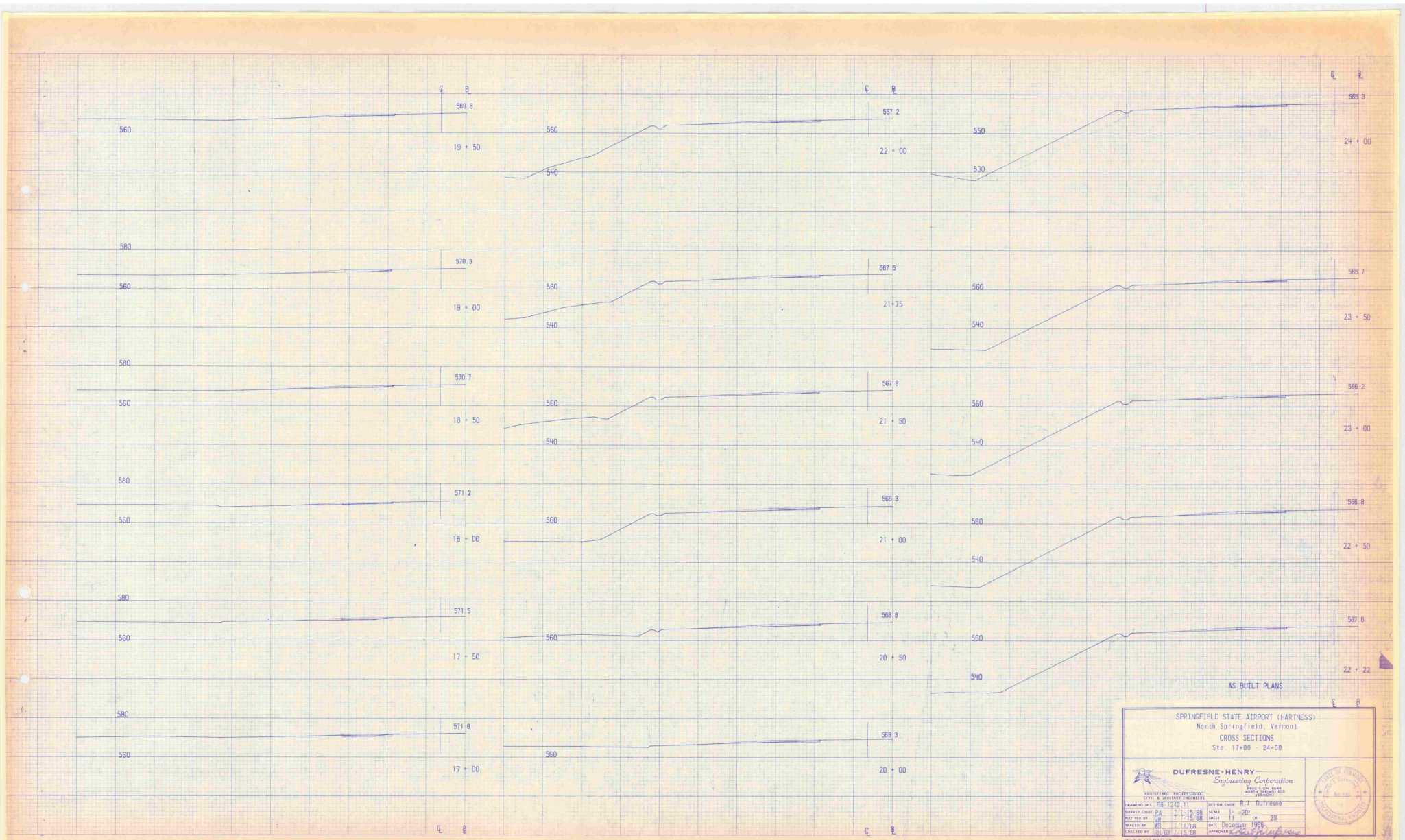
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 8+50 - 16+50



DUFRESNE-HENRY
Engineering Corporation

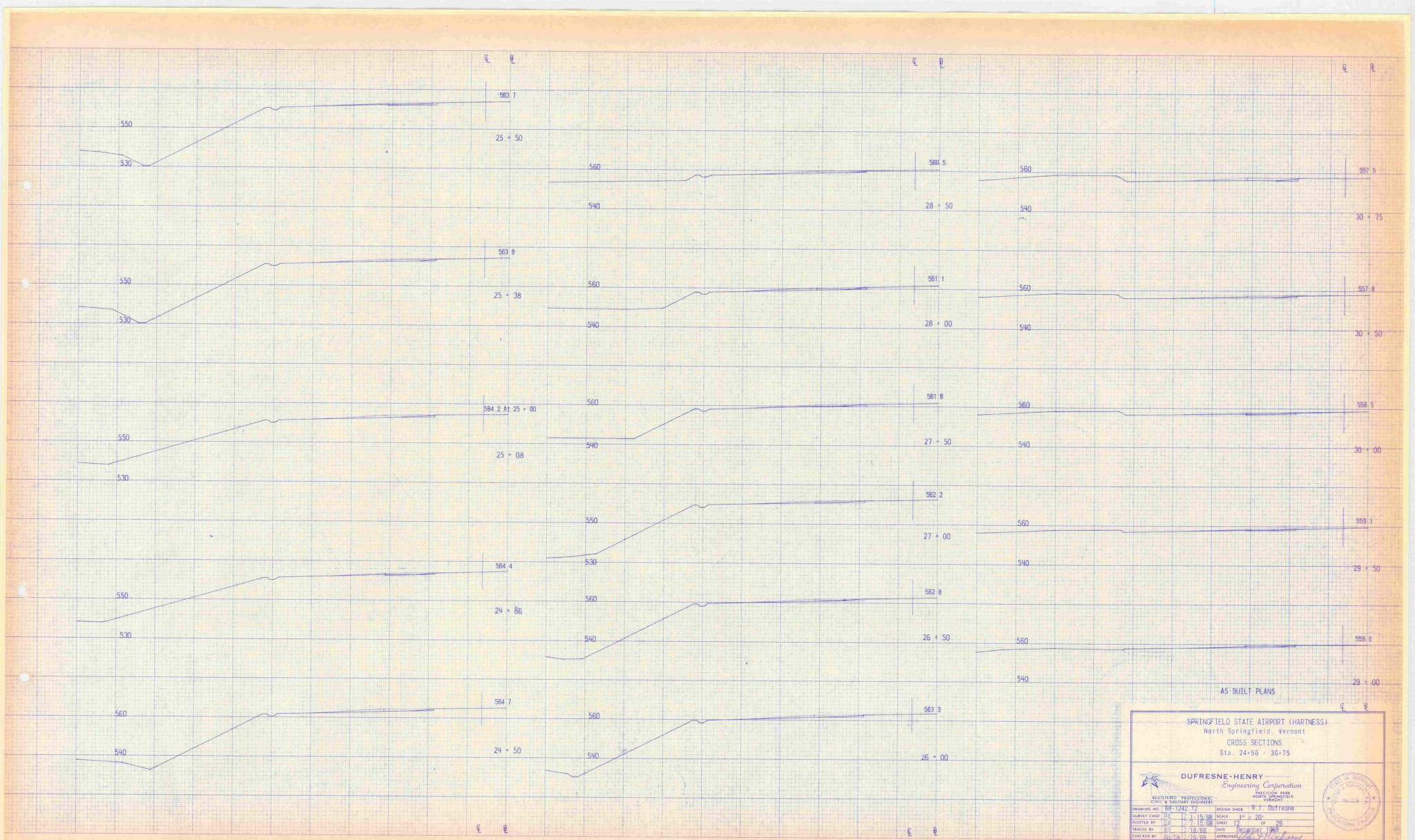
REGISTERED PROFESSIONAL ENGINEERS
CIVIL & SANITARY ENGINEERS
VERMONT
DUFRESNE-HENRY
100 W. 100 N. 100 E.
SPRINGFIELD, VERMONT 05156
TELEPHONE (802) 885-1111
FAX (802) 885-1112
E-MAIL: info@dufresne-henry.com
WEBSITE: www.dufresne-henry.com
DRAFTSMAN: J. DUFRESNE
CHECKED BY: J. DUFRESNE
DATE: 10/18/00
SCALE: 1" = 20'
SHEET: 10 OF 20
PROJECT NO.: 00-1742-15
DRAWING NO.: 10-18-00





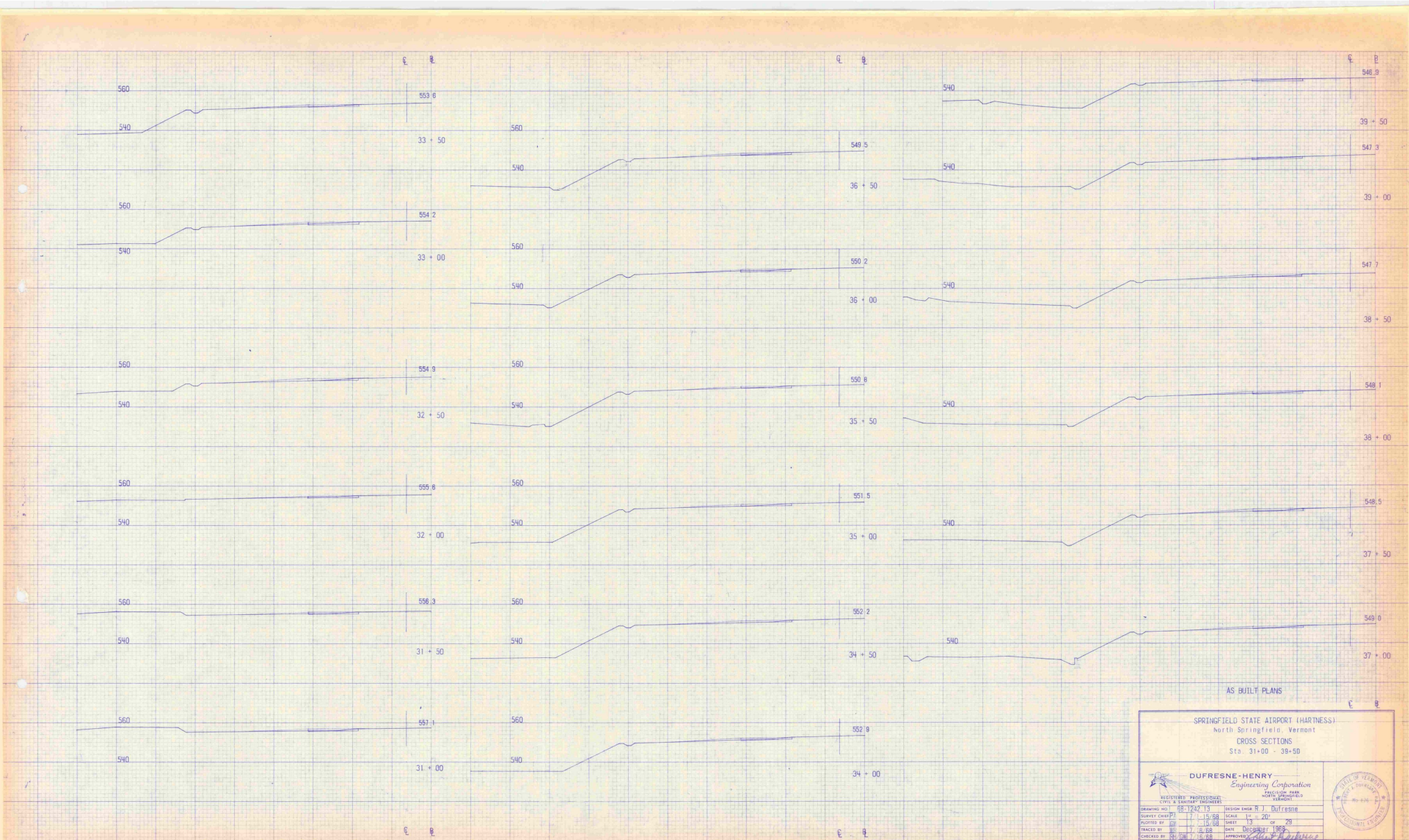
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS) North Springfield, Vermont CROSS SECTIONS Sta. 17+00 - 24+00			
DUFRESNE-HENRY Engineering Corporation 1000 Main Street Springfield, Vermont		REGISTERED PROFESSIONAL ENGINEER No. 1229	
DRAWING NO. 1229-11 SHEET NO. 11 PLOTTED BY J. L. H. 11-15-68 CHECKED BY J. L. H. 11-15-68 DATE 11-15-68	DESIGN ENGINEER R. J. DUFRESNE SCALE 1" = 20' SHEET 11 OF 23 DATE 11-15-68	STATE OF VERMONT PROFESSIONAL ENGINEER No. 1229	



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS) North Springfield, Vermont CROSS SECTIONS Sta. 24+50 - 30+75			
DUFRESNE-HENRY Engineering Corporation 100 Vt. Ave. WASHINGTON, D.C.		REGISTERED PROFESSIONAL CIVIL & SURVEY ENGINEER No. 1242-12 DESIGN ENGINEER R. J. DUFRESNE	
DRAWING NO. 88-1242-12 SURVEY CODE 11-1-15-68 PLOTTED BY J. C. 11-15-68 CHECKED BY J. C. 11-18-68 DATE 11-18-68	SCALE 1" = 20' SHEET 12 OF 28 DATE 11-18-68 APPROVED [Signature]	SEAL OF THE BOARD OF ENGINEERS STATE OF VERMONT No. 1242-12	



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

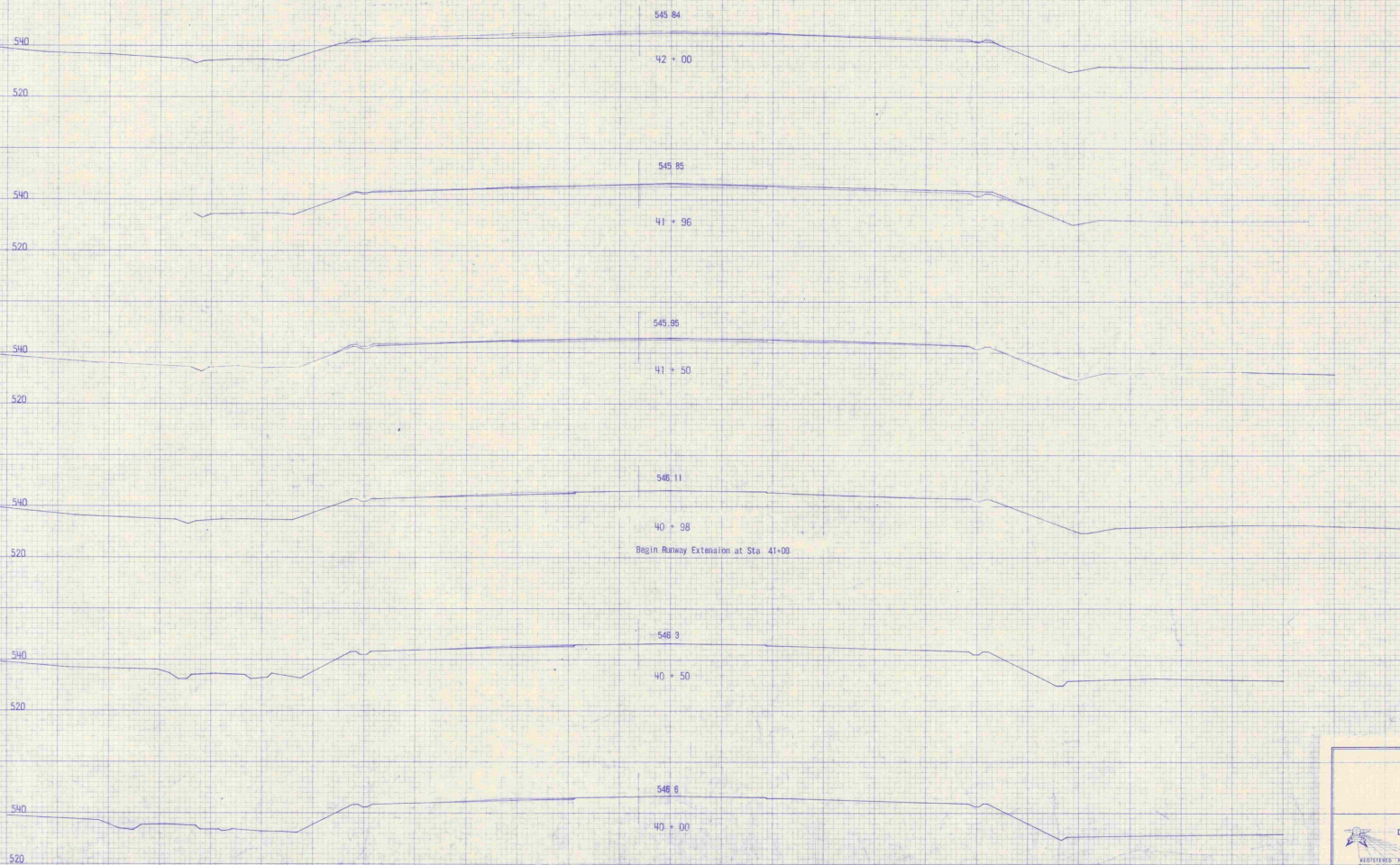
CROSS SECTIONS
Sta. 31+00 - 39+50

DUPRESNE-HENRY
Engineering Corporation
VERMONT

REGISTERED PROFESSIONAL
CIVIL & SURVEY ENGINEERS

DESIGNED BY: R. J. 1242 13 DESIGN ENGINEER: R. J. DUPRESNE
 SURVEYED BY: J. J. 11-19-88 SCALE: 1" = 20'
 PLOTTED BY: J. J. 11-19-88 SHEET: 29
 CHECKED BY: J. J. 11-19-88 DATE: NOVEMBER 1988
 APPROVED BY: J. J. 11-19-88

VERMONT STATE ENGINEERING BOARD
OFFICE OF THE SECRETARY
100 STATE STREET, SUITE 200
MONTPELIER, VERMONT 05602



AS BUILT PLANS

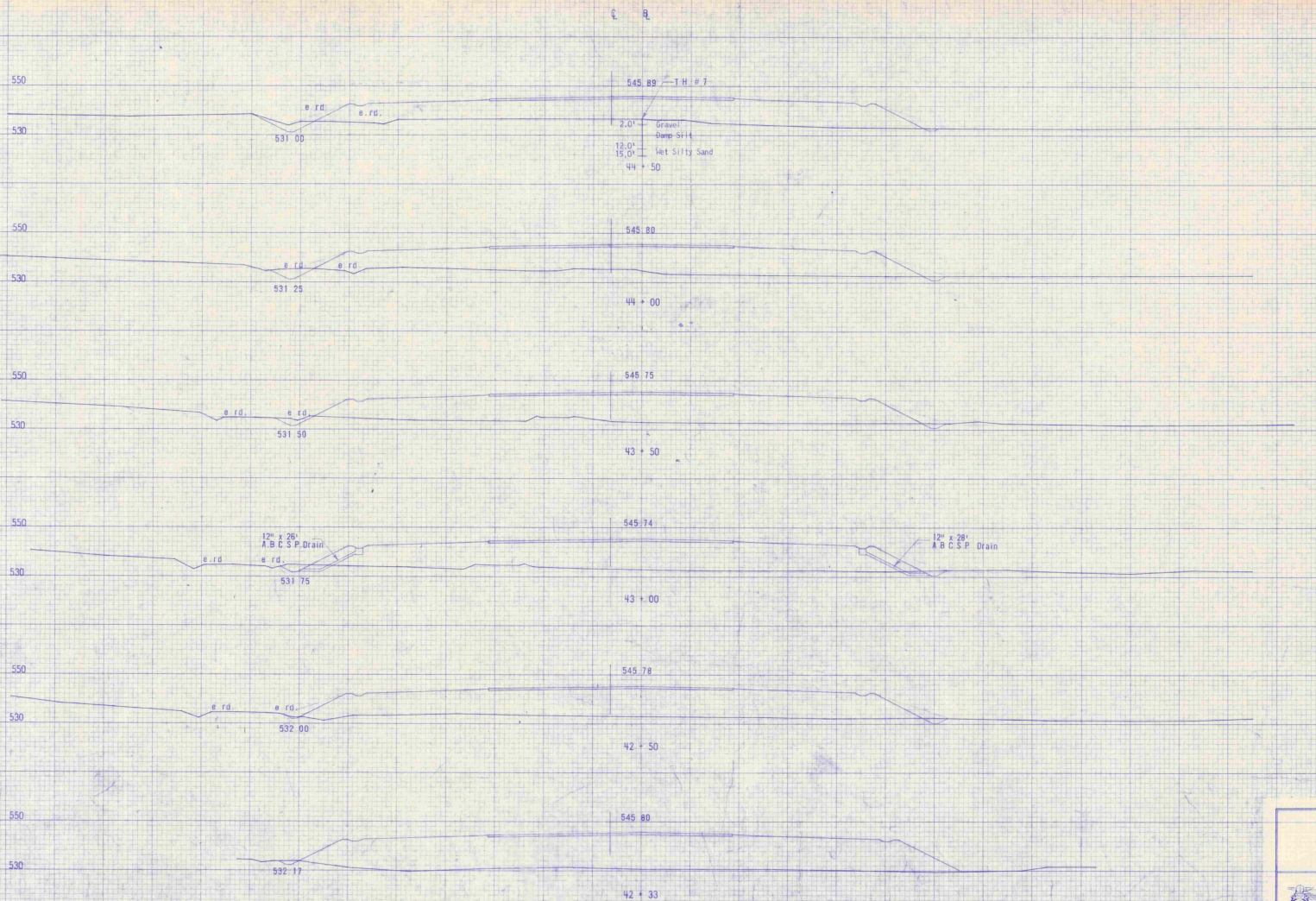
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 40+00 - 42+00



DUFRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL
CIVIL & SURVEY ENGINEERS
VERMONT
DRAFTSMAN
J. J. Dufresne
CURVE DATA
PUBLISHED BY
CHECKED BY
DATE
7/15/68
7/18/68
7/18/68
APPROVED
J. J. Dufresne

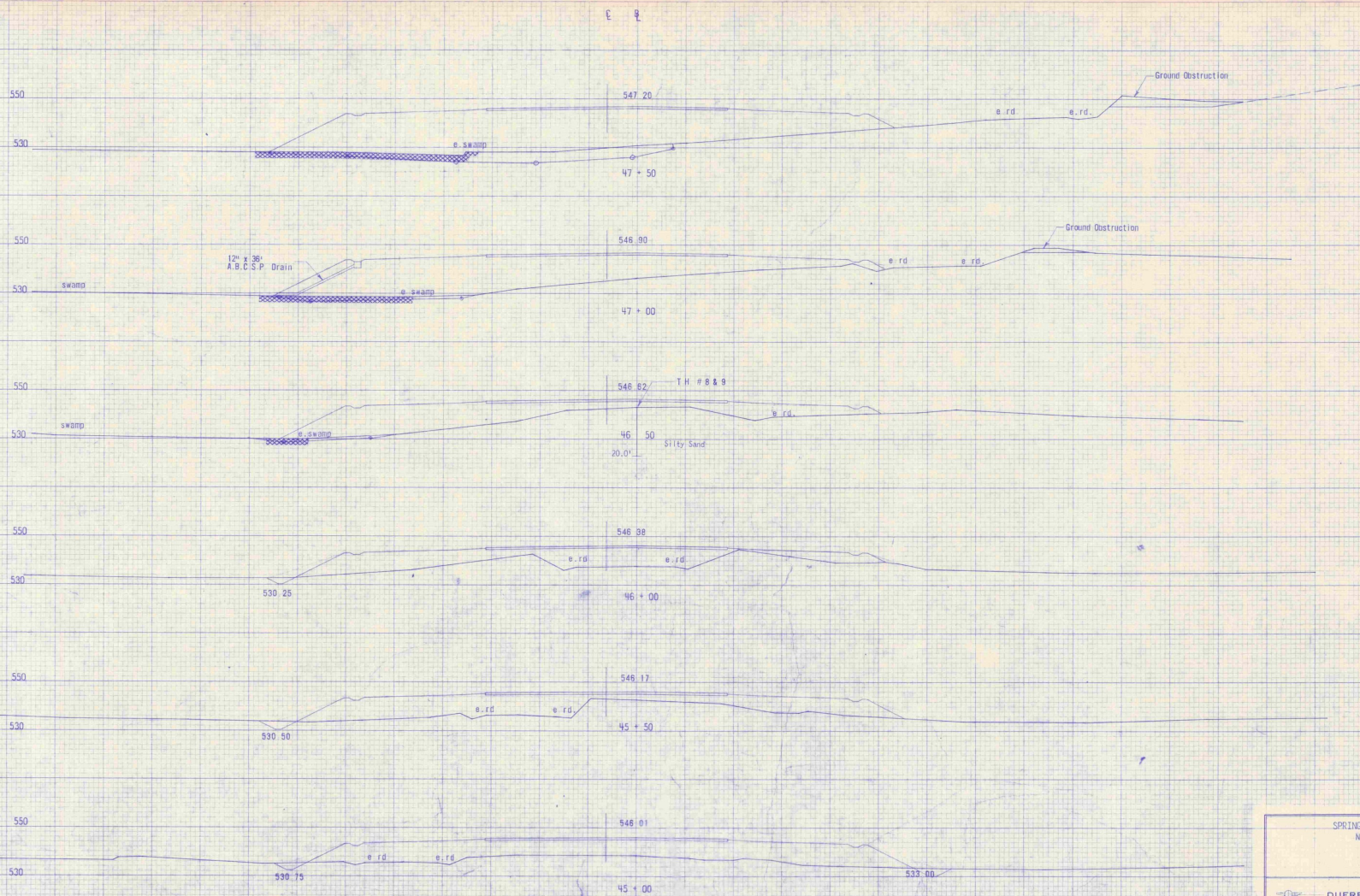




AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 42+33 - 44+50

 DUPRESNE-HENRY Engineering Corporation INCORPORATED VERMONT		
DRAWING NO. 68-1242-15 SURVEY DATE 7-1-15-08 PLOTTED BY G.M. CHECKED BY J.M. DATE 7-15-08	DESIGNER R.J. Dufresne SCALE 1" = 20' SHEET 15 OF 20 APPROVED <i>[Signature]</i>	



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 45+00 - 47+50



DUFRESNE-HENRY
Engineering Corporation
Incorporated in Vermont
Professional Engineers

DRAWING NO. 10-1222-16 DESIGN ENGINEER R. J. Dufresne
CHECKED BY J. H. 1/17/58 SCALE 1" = 20'
PLotted BY J. H. 1/17/58 SHEET 16 OF 20
CHECKED BY J. H. 1/18/58 DATE DECISION 1/18/58
APPROVED *[Signature]*



Area of Muck Excavation
Final Limits



C R

580

560

540

-1.0%

550.50

53 + 00

NOTE SEE SHEET 18A OF 29 FOR
RIGHT HALF OF THESE SECTIONS

560

540

-1.0%

550.20

52 + 50

570

6' W.D.S.

6' W.D.S.

550

-1.0%

549.90

-1.5%

530

52 + 00

550

6' W.D.S.

-1.0%

549.80

-2.0%

530

51 + 50

6' W.D.S.

6' W.D.S.

AS BUILT PLANS

550

-1.5%

549.30

-3.5%

12" x 50" A.B.C. S.P. Drain

530

6' W.D.S.

51 + 00

6' W.D.S.

Drk

6' W.D.S.

510

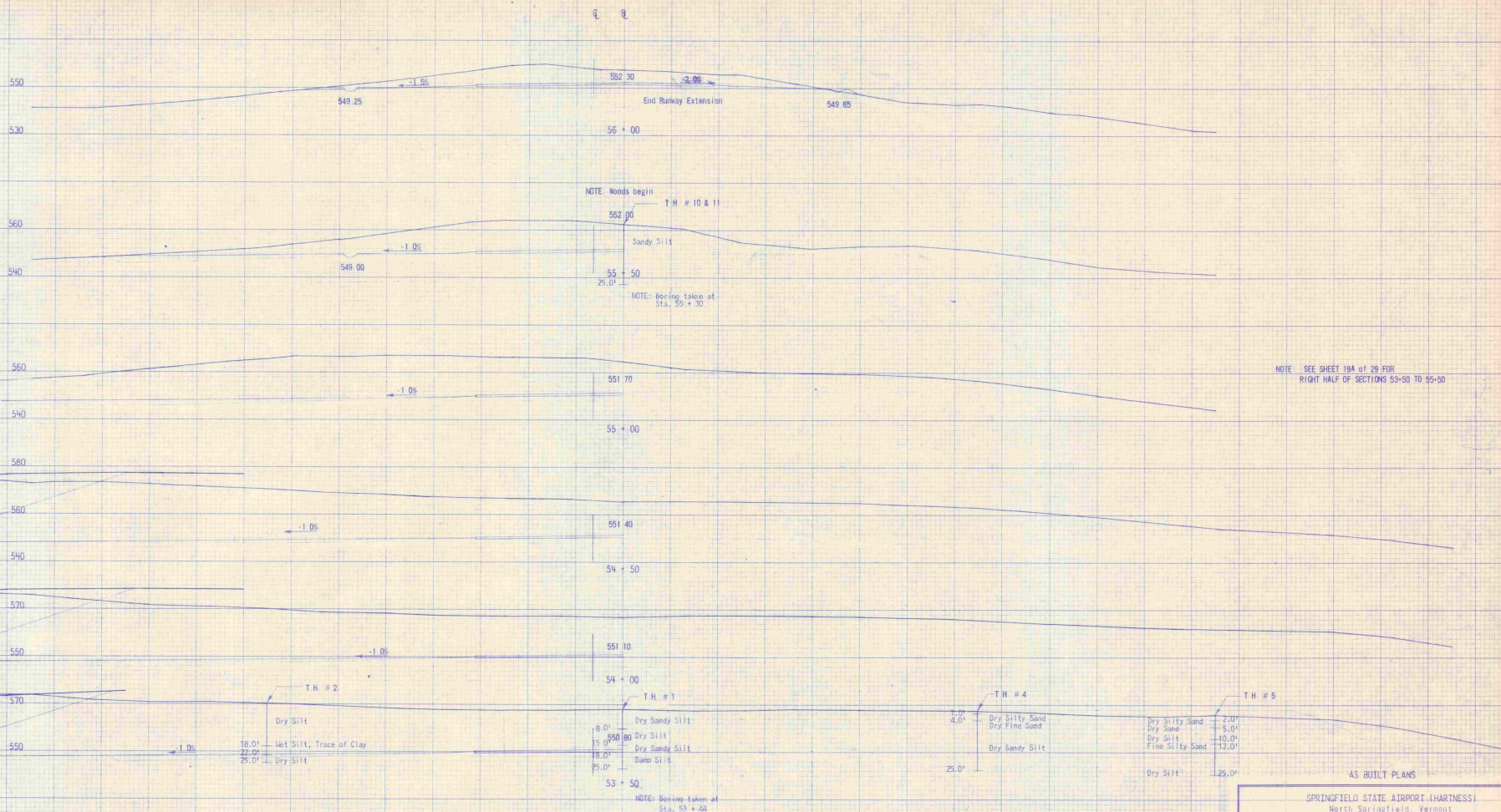
SPRINGFIELD STATE AIRPORT (PARTIAL)
North Springfield, Vermont
CROSS SECTIONS
Sta. 51+00 - 53+00

DUFRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL ENGINEERS
VERMONT

DESIGNED BY: J.E. HENRY
CHECKED BY: J.E. HENRY
DATE: 11/15/88
SHEET: 18 OF 20





NOTE: SEE SHEET 19A OF 29 FOR
RIGHT HALF OF SECTIONS 53+50 TO 55+50

AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

CROSS SECTIONS
Sta. 53+50 - 56+00



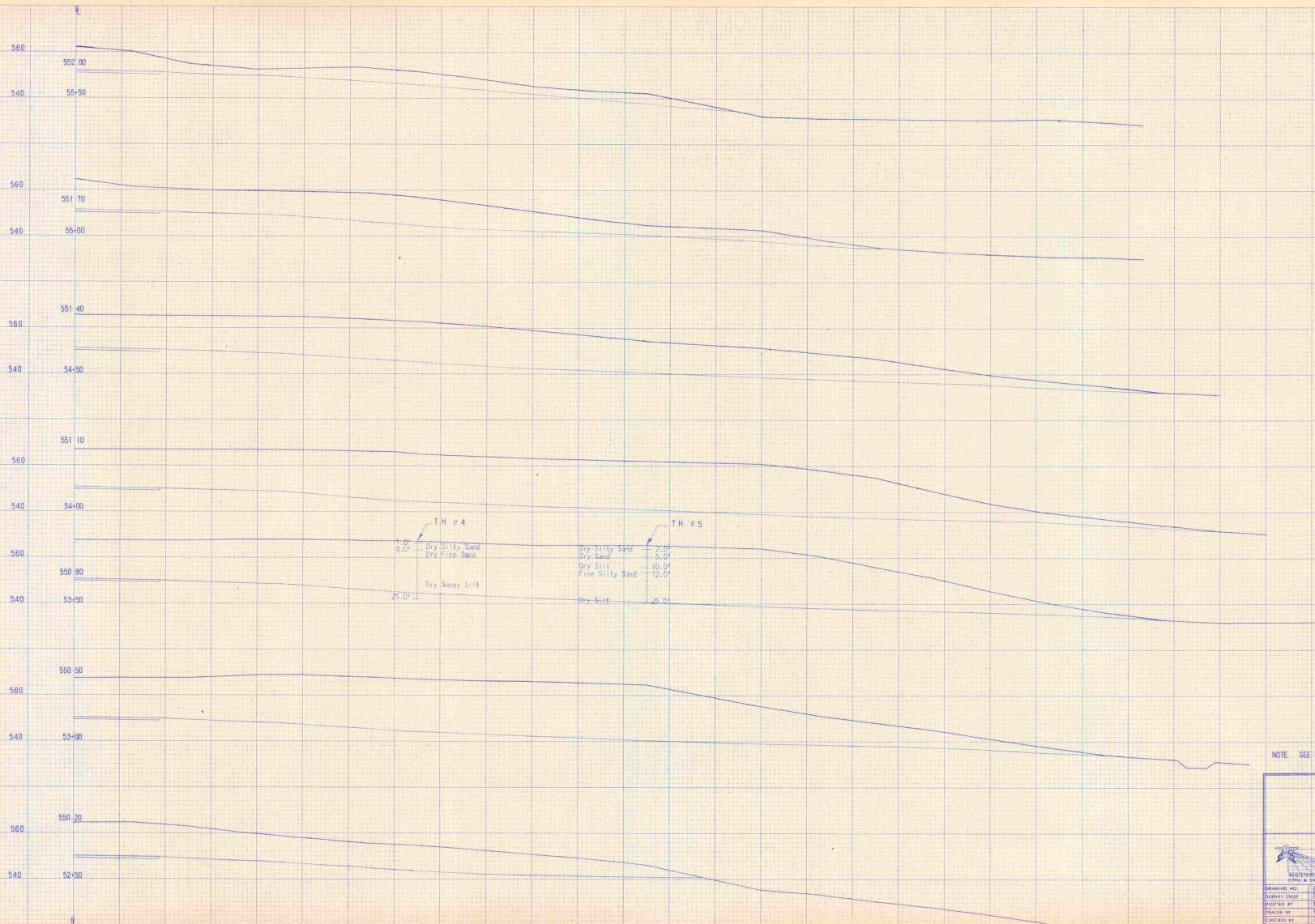
DUPRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL
CIVIL & SANITARY ENGINEERS

DESIGNED BY: T.H. # 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

CHECKED BY: [Signature]



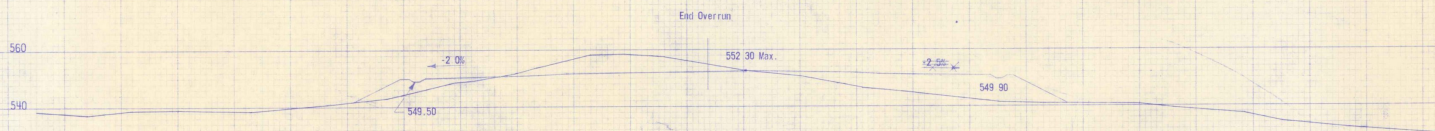
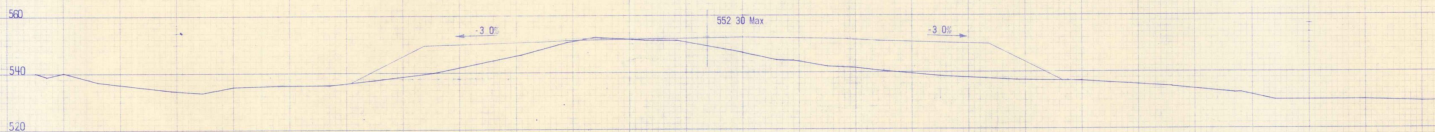
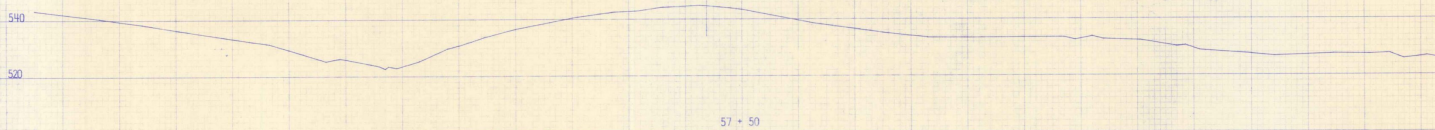
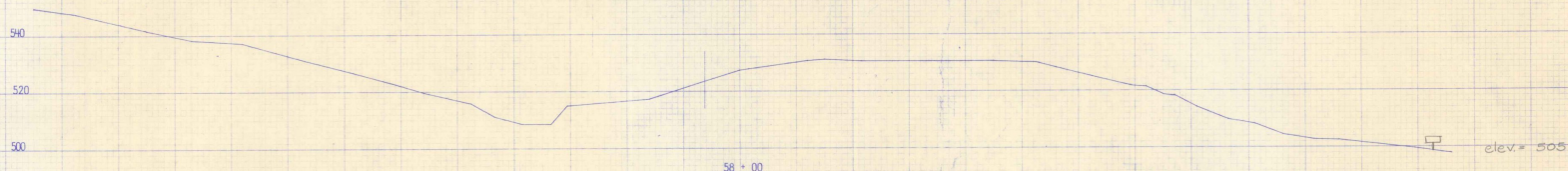


AS BUILT PLANS

NOTE: SEE SHEETS 18 & 19 OF 29 FOR LEFT HALF OF SECTIONS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
Sta. 52+50 - 55+50 Lt. (only)

DUFRESNE-HENRY Engineering Corporation INCORPORATED IN VERMONT VERMONT PROFESSIONAL ENGINEERS No. 12345			
DESIGNED BY	88-1234-10A	DESIGNED BY	88-1234-10A
SURVEY CHIEF	W. R. 11/70	SCALE	1" = 20'
PROJECT BY	W. R. 11/70	SHEET	18 OF 29
CHECKED BY	C. D. 11/70	DATE	JUNE 1980
APPROVED		APPROVED	



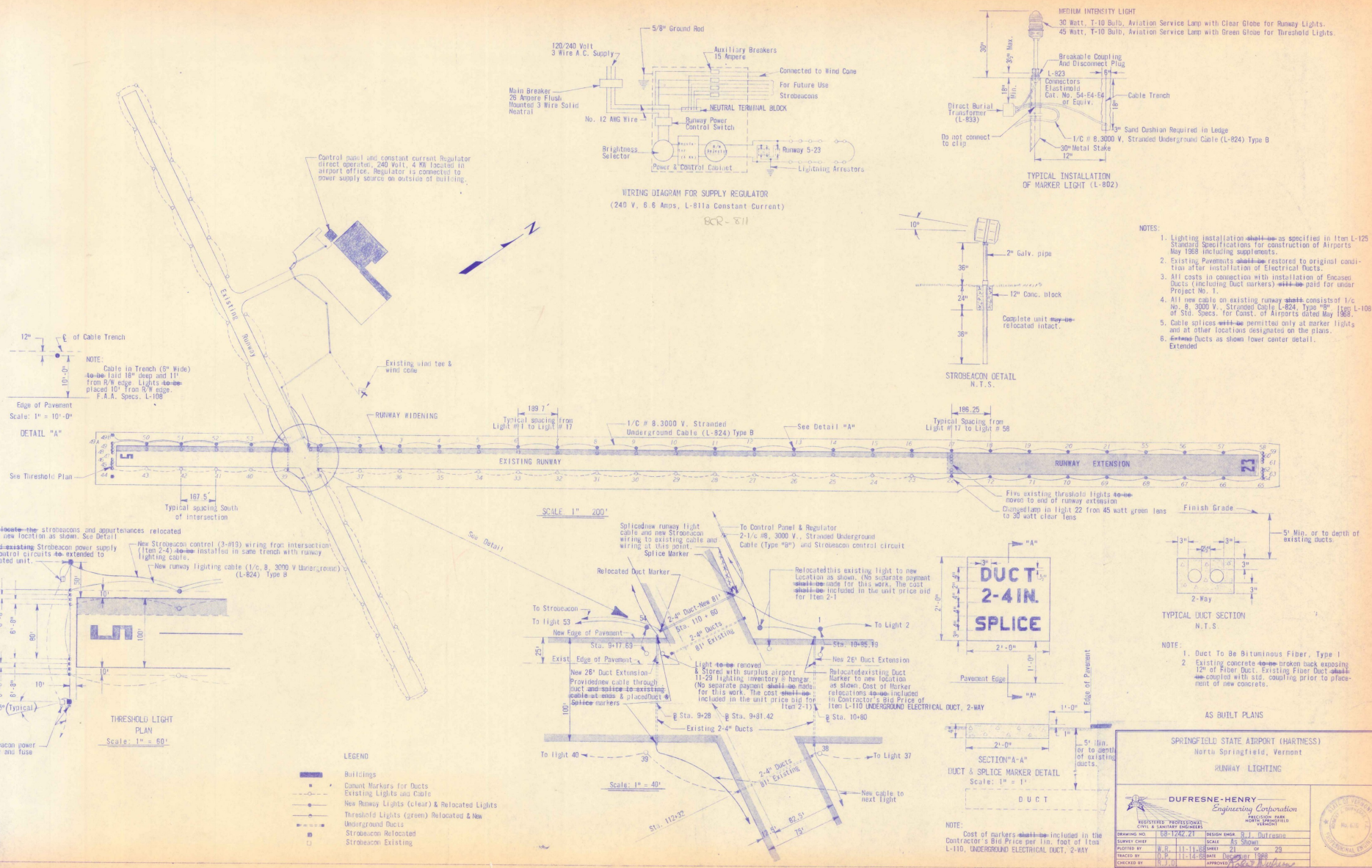
AS BUILT PLANS

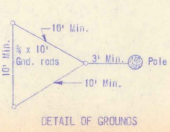
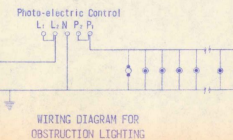
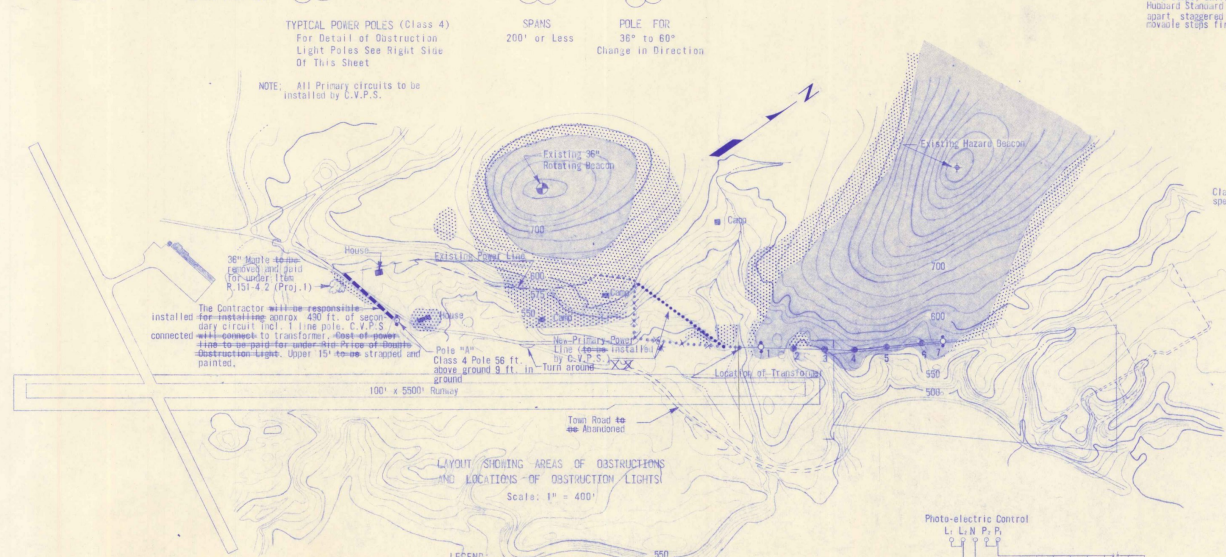
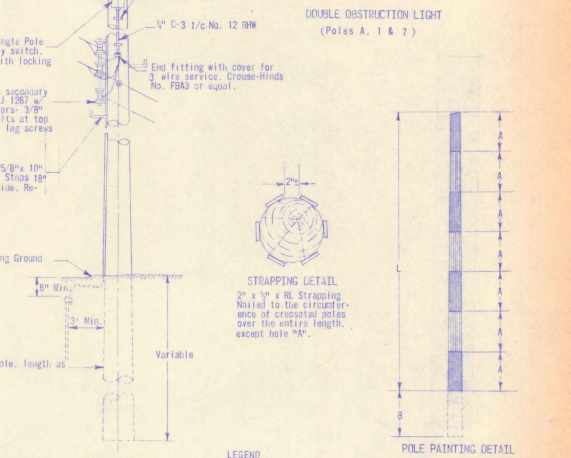
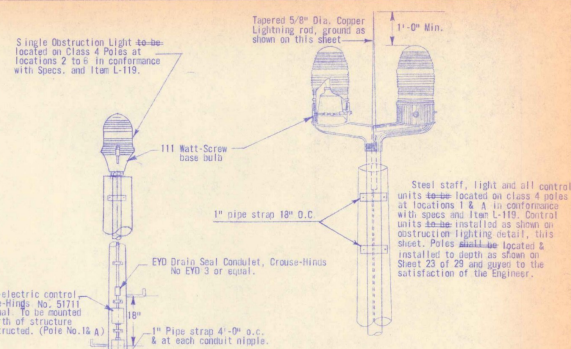
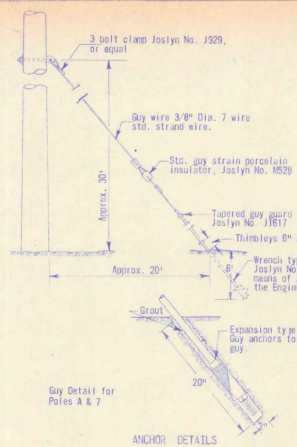
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 56+50 - 58+00

DUFRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL
CIVIL & SURVEY ENGINEERS
VERMONT
DESIGN ENGINEER: D. J. DUFRESNE
SURVEY CHIEF: P. J. HENRY
SCALE: 1" = 20'
PLOTTER: J. J. HENRY
CHECKED BY: J. J. HENRY
APPROVED: J. J. HENRY





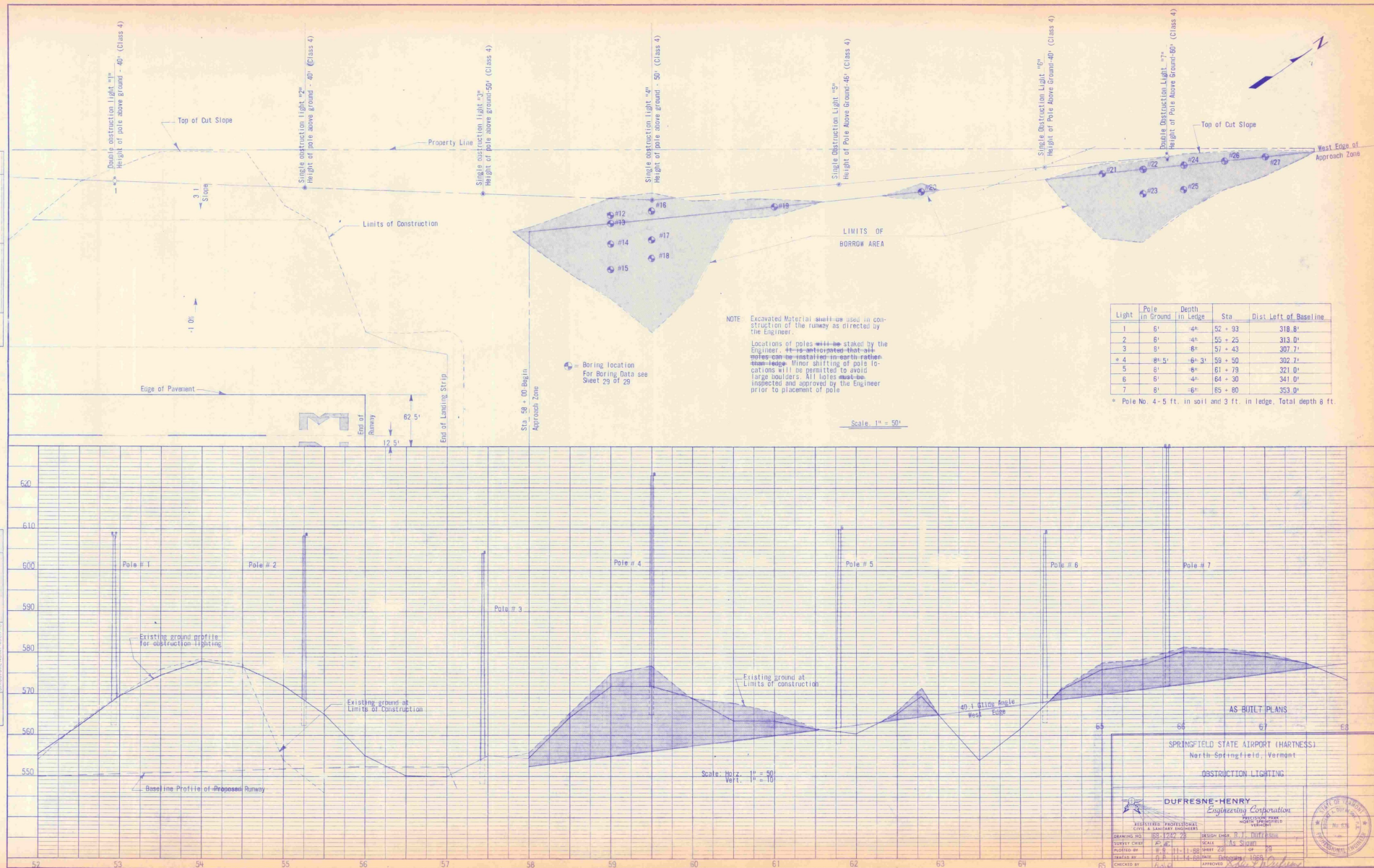


SPRINGFIELD STATE AIRPORT (HARTNESS) North Springfield, Vermont		
DISTRIBUTION LIGHTING 2000 POWER POLE TAPSETS		
DUFRESNE-HENRY - <i>Engineering Corporation</i>		
REGISTERED PROFESSIONAL ELECTRICAL & MECHANICAL ENGINEER		CERTIFICATE NO. VERMONT 10-176
DRAWING NO.	SS-1242-22	DESIGN SCALE
SHEET COUNT	OF 4	DATE
PLOTTED BY	B.G. 10-6-88	BY
CHECKED BY	R.M. 10-6-88	DATE
CREATED BY	J.M.	APPROVED

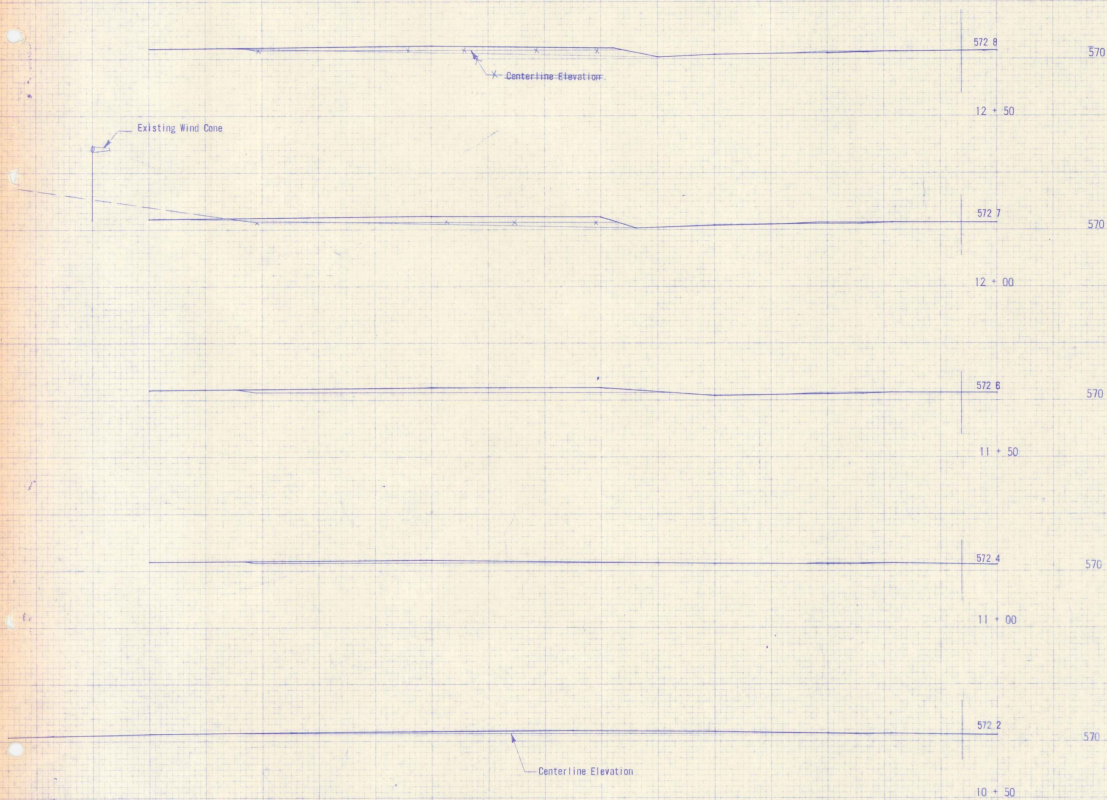
[Signature]

PLAN
 DRAWN BY: []
 CHECKED BY: []
 DATE: []

PROFILE
 DRAWN BY: []
 CHECKED BY: []
 DATE: []



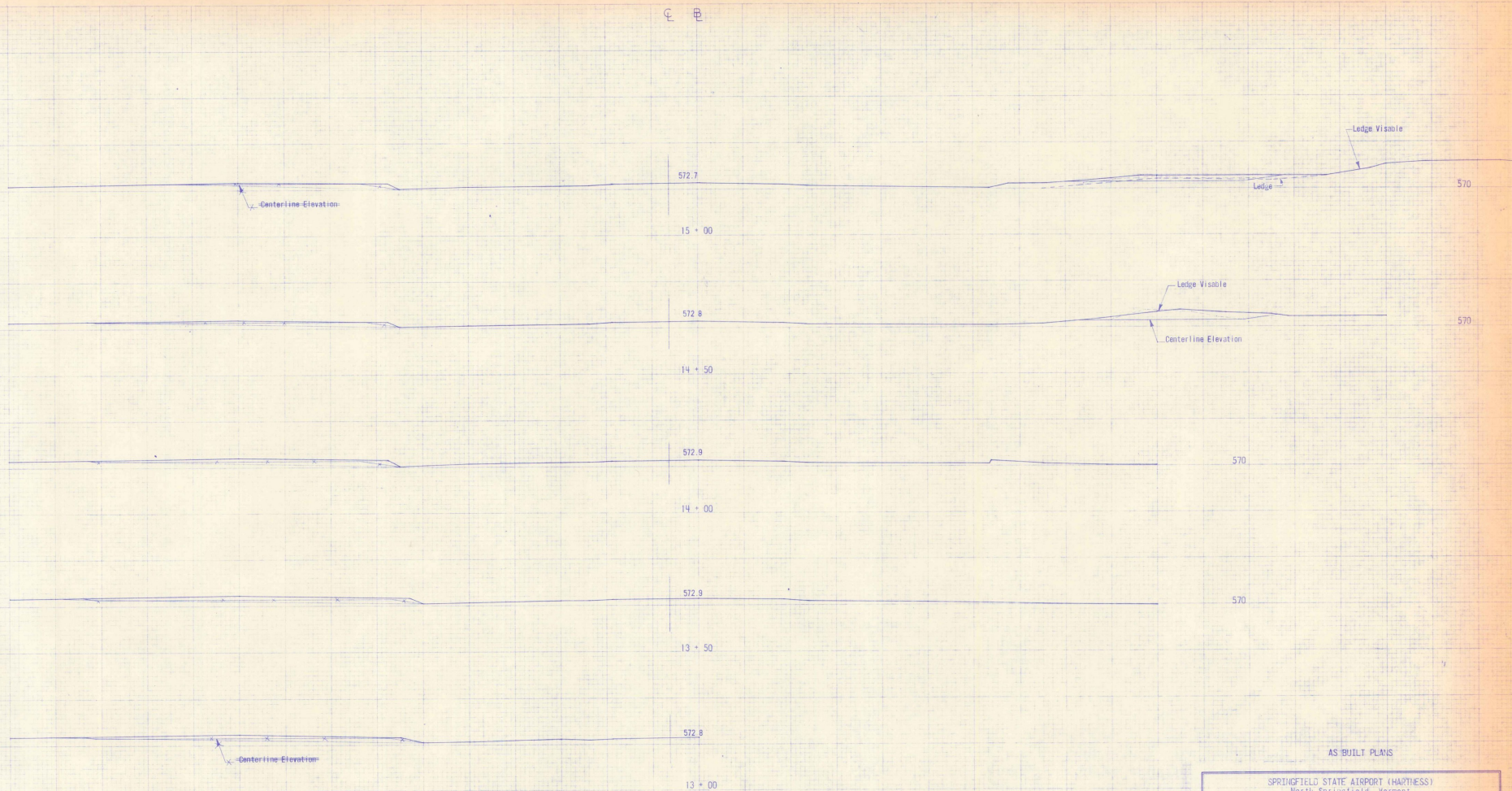
E B



E B

AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS) North Springfield, Vermont CROSS SECTION GROUND OBSTRUCTION REMOVAL RUNWAY	
DUFRESNE-HENRY Engineering Corporation Registered Professional Engineer State of Vermont No. 636	
DRAWING NO. 18-1242-24 SURVEY DATE 8-15-88 DESIGNED BY H.S. 8-22-88 CHECKED BY H.S. 8-23-88	DESIGNER H.S. SCALE 1" = 20' DATE 8-23-88 APPROVED <i>[Signature]</i>



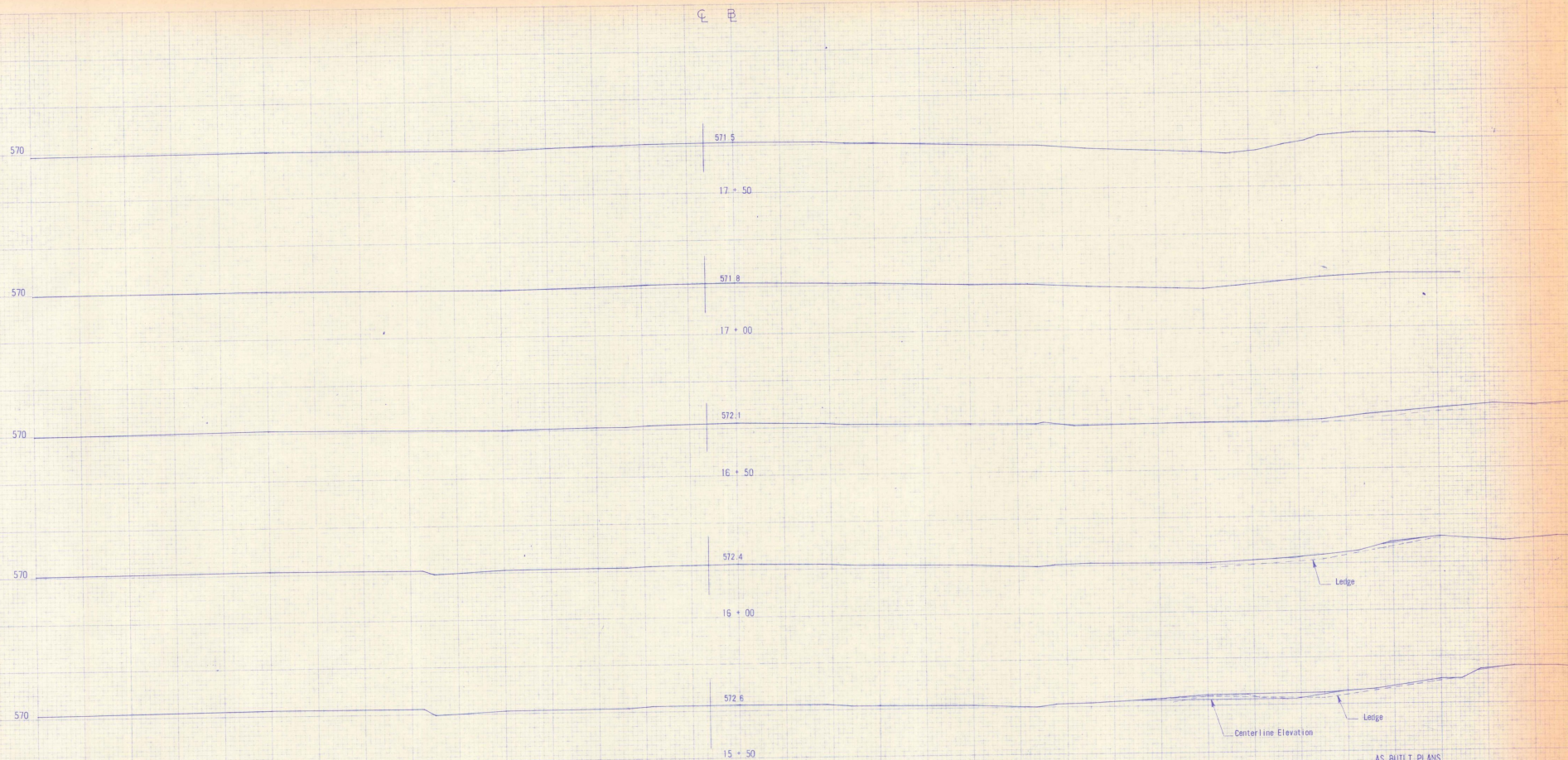
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTION
GROUND OBSTRUCTION REMOVAL
RUNWAY

DUFRESNE-HENRY
Engineering Corporation
REGISTERED PROFESSIONAL
CIVIL & SURVEY ENGINEERS

DRAWING NO.	PH-1242-25	DESIGN ENGINEER	R. J. DUFRESNE
CHECKED BY	P. E. 8-15-88	SCALE	1" = 20'
PLOTTED BY	W. B. 8-22-88	SHEET	25 OF 28
TRACED BY	W. B. 8-24-88	DATE	August 1988
CHECKED BY	H. S. 8-23-88	APPROVED	<i>[Signature]</i>





AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTION
GROUND OBSTRUCTION REMOVAL
SURVEY

DUFRESNE-HENRY
Engineering Corporation
REGISTERED PROFESSIONAL
CIVIL & SURVEY ENGINEER
VERMONT
No. 118

DESIGNED BY: RB 12-22-28 DESIGN ENGINEER: H. J. DUFRESNE
SURVEY CHIEF: P. S. 12-15-28 SCALE: 1" = 20'
PLOTTED BY: P. S. 12-22-28 CHECKED: 25 OF 28
TRACED BY: H. J. 12-24-28 DATE: December, 1928
CHECKED BY: H. J. 12-23-28 APPROVED: [Signature]

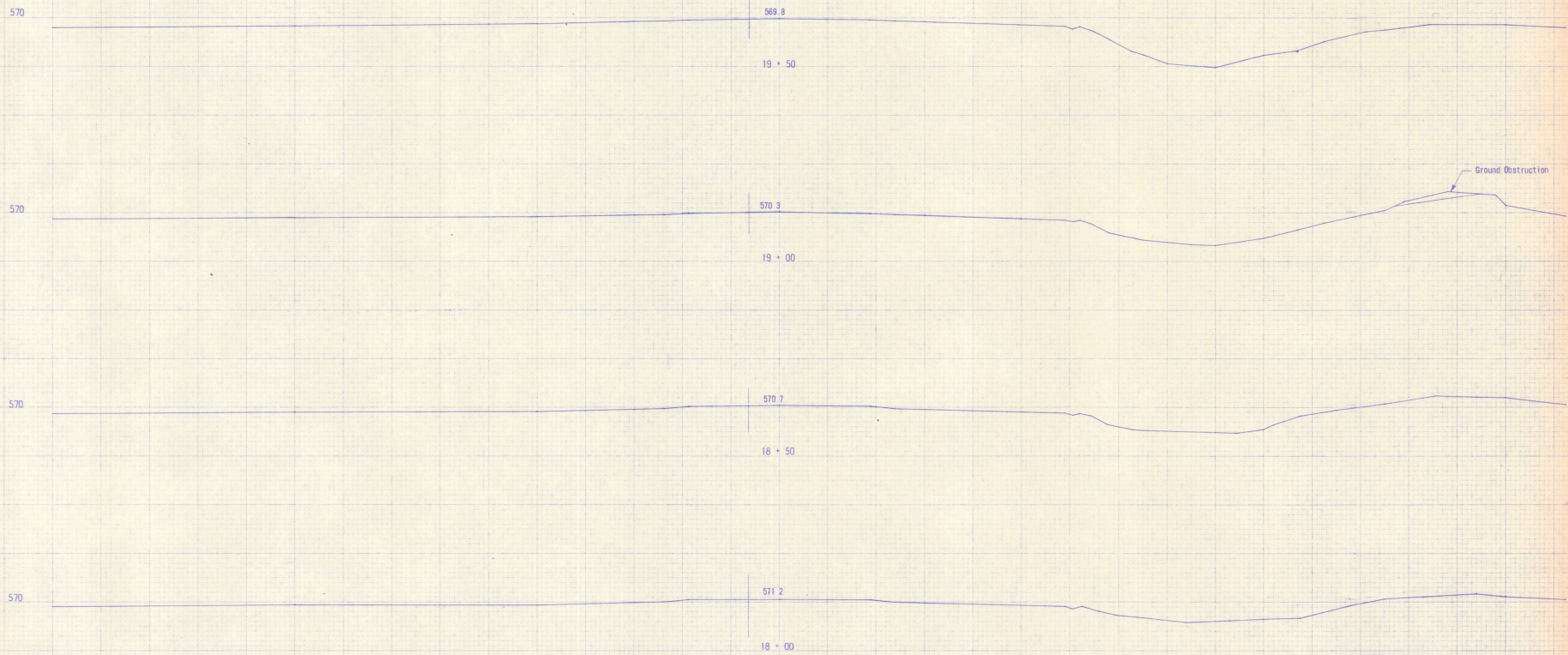
VERMONT
No. 118
DUFRESNE-HENRY
ENGINEERING CORPORATION

CE

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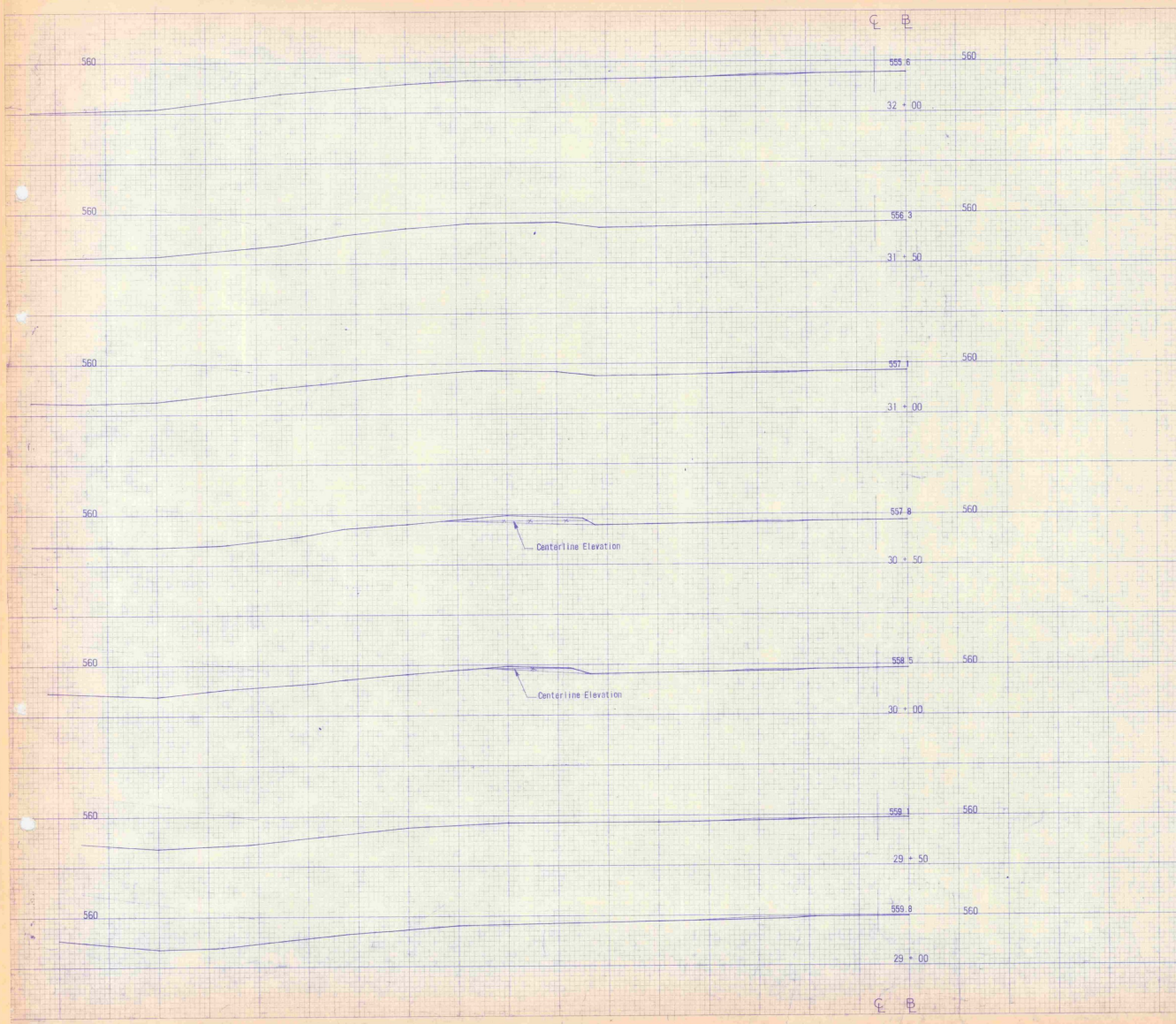
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTION
GROUND OBSTRUCTION REMOVAL
RUNWAY

DUPRESNE-HENRY
Engineering Corporation
INCORPORATED IN VERMONT
VERMONT PROFESSIONAL ENGINEERS

DRAWING NO.	108-1252-27	DESIGN ENGINEER	H. J. Dufresne
SURVEY CHIEF	H. J. Dufresne	SCALE	1" = 20'
DESIGNED BY	H. J. Dufresne	SHEET	23 OF 23
CHECKED BY	H. J. Dufresne	DATE	February 1968
APPROVED BY	H. J. Dufresne	APPROVED	[Signature]





EARTHWORK SHEET

VC	STATION	GRADES		CORR V.C.	D-ST.	TOTAL EXCAVATION		TOTAL EXCAVATION		EMBANKMENT		BASE	
		ON TANGENT	ON V CURVES			AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS
41	543.30	548.11	+2.81	50									
-50	543.60	545.95	+2.35	50									
42	543.90	545.84	+1.94	50						0	2415		
-50	544.20	545.78	+1.58	50								2609	4744
43	544.50	545.74	+1.24	50								2515	4585
-50	544.80	545.75	+0.95	50								2437	4389
44	545.10	545.80	+0.70	50								2303	4036
-50	545.40	545.89	+0.49	50								2056	3545
45	545.70	546.01	+0.31	50								1773	3056
-50	546.00	546.17	+0.17	50								1527	2682
46	546.30	546.38	+0.08	50								1370	
-25				25				0				2733	
-50	546.60	546.62	+0.02	50				60	28			1611	
47	546.90		0	50				117	164			2806	3905
-50	547.20			50				492	565			6098	
48	547.50			50				698	1103			8322	
-50	547.80			50				798	1386			9908	
49	548.10			50				1018	1682			11074	
-50	548.40			50				1267	2116			12028	
50	548.70			50				148	1310			11383	
-50	549.00			50				452	555			10609	
51	549.30			50				0	418			9776	
-50	549.60			50				178	163			8660	
52	549.90			50				2960	2904			119	2445
-50	550.20			50				7339	9536			0	110
53	550.50			50				10951	16937				
-50	550.80			50				11369	20668				
54	551.10			50				10929	20647				
-50	551.40			50				9464	18882				
55	551.70			50				5668	14011				
-50	552.00			50				2390	7462			0	19
56	552.30			50				1079	3212			21	701
-50	552.60			50				340	1314			736	2299
57	552.90			50				0	315			1747	
-35				35								0	1133

HARTNESS EARTHWORK SUMMARY

Total Earth & Rock	(A) 122,306 c.y.
Total Rock	766 c.y.
Total Earth	121,540 c.y.
Planimetric Fill	128,653 c.y.
Less Factored Rock (1.5)	1,149 c.y.
Net Plan Fill	121,504 c.y.
Fact. = 1.25	x 1.25
Factored Fill	151,380 c.y.
Less Avail. Fill	121,540 c.y.
Balance	(B) 37,840 c.y.

- NOTE: (A) A summary of 6156 c.y. of Earth & Rock for the first 4000' has been added to this figure of which 667 c.y. is Rock.
(B) Total Balance used was 48,337 c.y. - A variation of 10.4% c.y. due to loss from windrows caused by rain.

SPRINGFIELD STATE AIRPORT (HARTNESS)

North Springfield, Vermont

CROSS SECTION

GROUND OBSTRUCTION REMOVAL

RUNWAY & EARTHWORKS



DUFRESNE-HENRY
Engineering Corporation

VERMONT PROFESSIONAL
CIVIL & SANITARY ENGINEERS

SPRINGFIELD, VERMONT

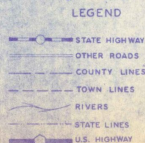
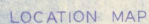
DRAWING NO.	66-1242-28	DESIGN ENGINEER	D. J. Dufresne
CHECKED BY	M. R. D. 12-15-68	SCALE	1" = 20'
PLOTTED BY	M. R. D. 12-22-68	SHEET	26 OF 29
MAILED BY	M. R. D. 12-24-68	DATE	Dec. 1968
CHECKED BY	M. R. D. 12-27-68	APPROVED	

Earthworks Revised 10-1-69 G.D.

PLANS FOR
EXPANSION OF EXISTING TERMINAL APRON
HARTNESS MUNICIPAL
AIRPORT

F.A.A.P. PROJ. NO. 9-43-004-C805

INDEX OF SHEETS	
SHEET	TITLE
1	TITLE PAGE
2	ACCPA OF BORA INITIAL SECTION 3 DETAILS
3	ACCPA OF BORA INITIAL SECTION 3 DETAILS

[illegible]

FEDERAL AVIATION ADMINISTRATION

APPROVED _____ DISTAIRPORT ENGR.
DATE _____

VERMONT AERONAUTICS BOARD

APPROVED _____ DATE _____ COMMISSIONER

APPROVED _____ DATE _____ ENGINEER

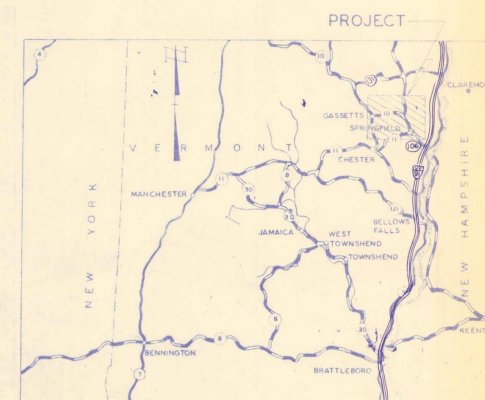
SPRINGFIELD

APPROVED: *Y. H. L. L. L.* DATE: *June 2, 1961*

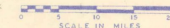
CHAIRMAN, BOARD OF SELECTMEN

SPRINGFIELD, VERMONT

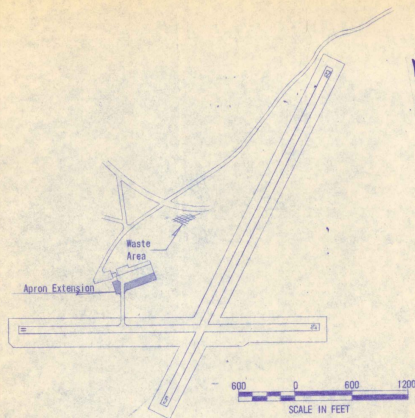
HARTNESS MUNICIPAL AIRPORT NORTH SPRINGFIELD, VERMONT TITLE PAGE			
 DUFRESNE-HENRY		Engineering Corporation	
REGISTERED PROFESSIONAL CIVIL ENGINEER		REGISTERED NORTH SPRINGFIELD	
DWG. NO. 67-497.1	DRAWN BY RACHISKI	DATE MAY 16, 1967	
SCALE AS SHOWN	SHEET 1 OF 5	CHECKED J. DUFRESNE	
APPROVED <i>Robert J. Dufresne</i>			



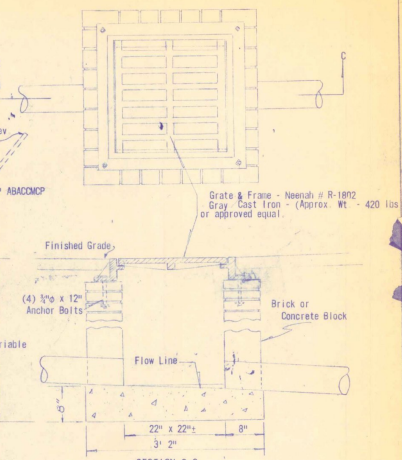
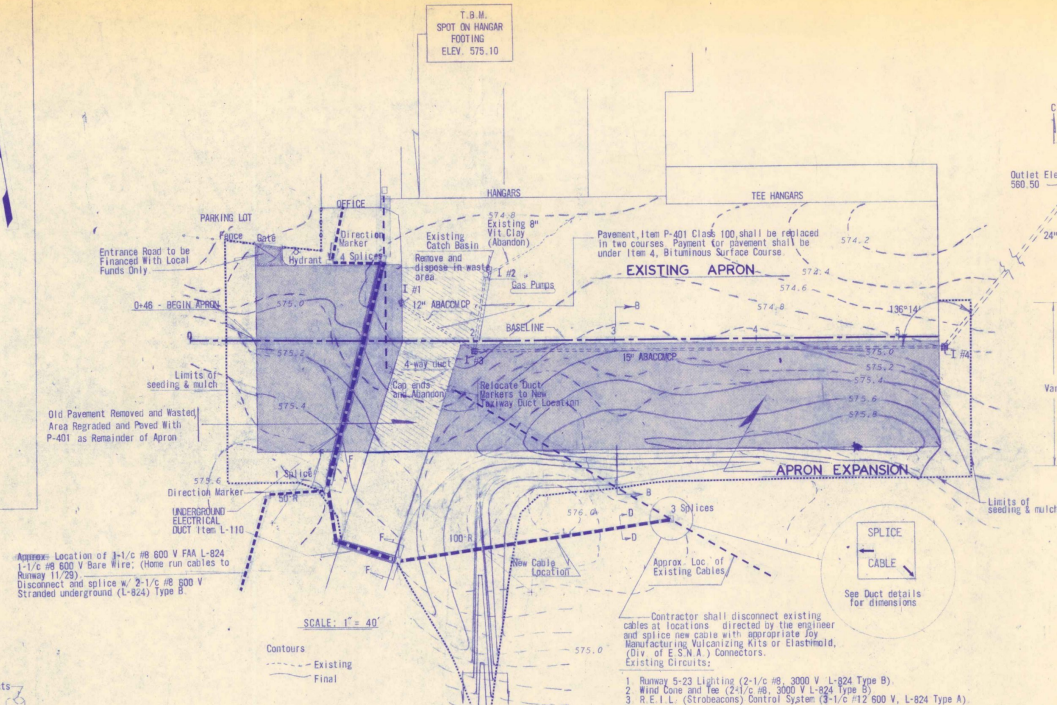
VICINITY MAP



NOTE:
SYMBOLS, SAME AS
THOSE WITH LOCATION



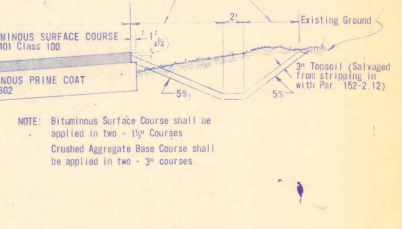
GENERAL LAYOUT SHOWING SCOPE OF PROJECT



DRAINAGE SCHEDULE
Not To Scale

I. No.	Inv. El. *	Grate El.	Dist. To I. No. At (Grade)	Pipe (ABACOMP)
1	570.51	574.60	64' to 3	1.250"
2	570.39	574.40	54' to 3	1.250"
3	568.71	574.50	32' to 4	0.500"
4	568.06	575.00	40' to 0	1.875"

* Center of D.I. - Construct flow line to match pipe gradient



AS BUILT PLANS

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

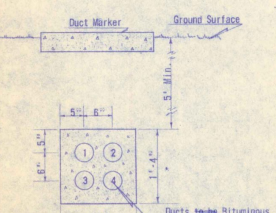
DUFRESNE-HENRY ENGR. CORP.

BY *[Signature]* PROJECT ENGINEER

DATE *[Signature]*

DUFRESNE-HENRY
Engineering Corporation
1000 W. SPRINGFIELD, VERMONT
SCOPE OF WORK - DETAILS - TYPICAL SECTIONS

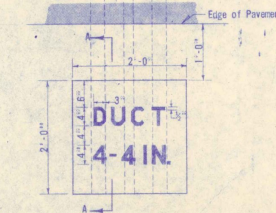
DESIGN NO. 67-497-2 DRAWN BY T. HATCHER DATE 10/18/1967
SHEET 2 OF 6
SCALE: AS SHOWN
APPROVED *[Signature]*



UNDERGROUND ELECTRICAL DUCT
Scale: 1" = 1'-0"

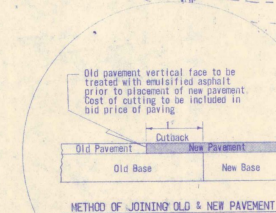
NOTE:
One end of Duct to be three inches (3") lower than the other end for drainage.

Duct No. 1 shall contain cables to Runway 5-23 and to Wind Tee.
Duct No. 2 shall contain cables to Runway 11-29 (long duct only) and WEI control circuit.
Pull Wires shall be left in Ducts 3 and 4.
Tel. Cable installed in Duct 3 during construction.



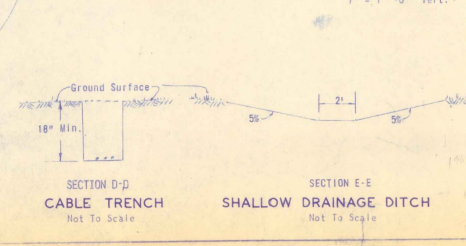
UNDERGROUND ELECTRICAL DUCT MARKER
Scale: 1" = 1'-0"

2 Duct markers & 1 Direction marker required, cost of these 3 markers is to be included in bid price per lin. ft. of UNDERGROUND ELECTRICAL DUCT.



METHOD OF JOINING OLD & NEW PAVEMENT

Old pavement vertical face to be treated with emulsified asphalt prior to placement of new pavement.
Cost of cutting to be included in bid price of paving.



SECTION D-D: CABLE TRENCH
Not To Scale



SECTION E-E: SHALLOW DRAINAGE DITCH
Not To Scale

GEOGRAPHIC LOCATION
 LATITUDE 43°20'29"
 LONGITUDE 72°31'18"
 AIRPORT ELEVATION
 575' M.S.L. DATUM
 AIRLINE DISTANCE FROM
 TOWN OF SPRINGFIELD=3.75 MI. NW
 ROAD DISTANCE FROM SPRINGFIELD
 POST OFFICE TO AIRPORT = 5.8 MI.

PLANS FOR EXPANSION OF EXISTING TERMINAL APRON HARTNESS MUNICIPAL AIRPORT

TOWN OF SPRINGFIELD, VERMONT

FA.A.P. PROJ. NO. 9-43-004-0005

INDEX OF SHEETS		
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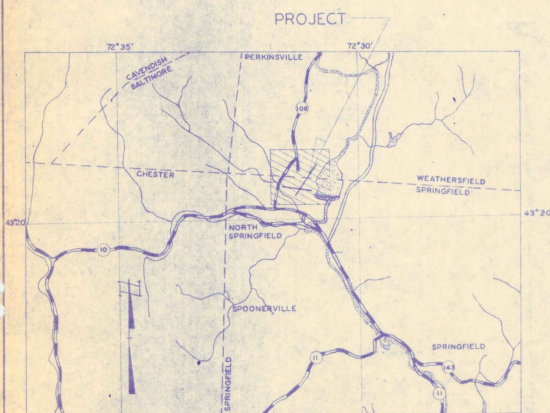
QUANTITIES OF MAJOR ITEMS				
ITEM	DESCRIPTION	UNIT	EST. QUANT.	FINAL QUANT.
1	COMMON EXCAVATION	C.Y.	1,200	1,200
2	CONCRETE CURB, 4" THICK	LINEAL	1,200	1,200
3	GRIT, 1/4" TO 1/2"	CY	1,200	1,200
4	11" SURFACE COURSE CLASS 100	TONS	1,200	1,200
5	12" ASPHALT-BUMBED A.C. W.C.P.	S.F.	1,200	1,200
6	12" ASPHALT-BUMBED A.C. W.C.P.	S.F.	1,200	1,200
7	24" ASPHALT-BUMBED A.C. W.C.P.	S.F.	1,200	1,200
8	BRICK PAVEMENT	S.F.	1,200	1,200
9	TURNING	ACR	1,200	1,200
10	UNDERGROUND ELECTRIC DUCT-FOUR WAY	L.F.	1,200	1,200
11	CABLE TRENCH	L.F.	1,200	1,200
12	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
13	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
14	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
15	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
16	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
17	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200
18	NO. 8 UNDERGROUND CABLE 3000V-IN TRENCH	L.F.	1,200	1,200

AS BUILT PLANS

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

DUFRESNE-HENRY ENGR. CORR

BY _____ PROJECT ENGINEER
 DATE _____



LOCATION MAP



DATE	REVISION	DESCRIPTION	BY

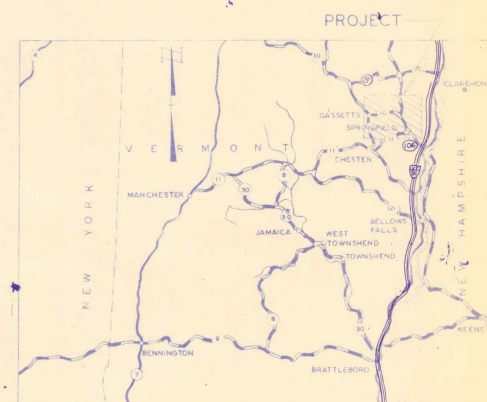
FEDERAL AVIATION ADMINISTRATION
 APPROVED _____ DATE _____
 DISTAIRPORT ENGR

VERMONT AERONAUTICS BOARD
 APPROVED _____ DATE _____
 CHAIRMAN, BOARD OF SELECTMEN
 APPROVED _____ DATE _____
 ENGINEER

SPRINGFIELD
 APPROVED _____ DATE _____
 CHAIRMAN, BOARD OF SELECTMEN
 APPROVED _____ DATE _____
 ENGINEER

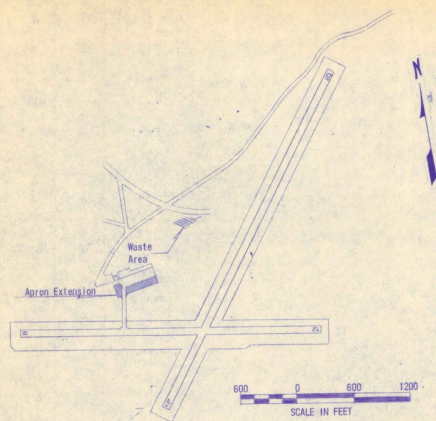
HARTNESS MUNICIPAL AIRPORT
 NORTH SPRINGFIELD, VERMONT
 TITLE PAGE

DUFRESNE-HENRY
 Engineering Corporation
 1000 W. 10th St., Springfield, Vermont 05156
 PHONE 87-4971
 SCALE: NOT TO SCALE
 SHEET: 1 OF 1
 DATE: MAY 18, 1967
 DRAWN BY: RICHESKI
 CHECKED BY: DUFRESNE
 APPROVED BY: DUFRESNE

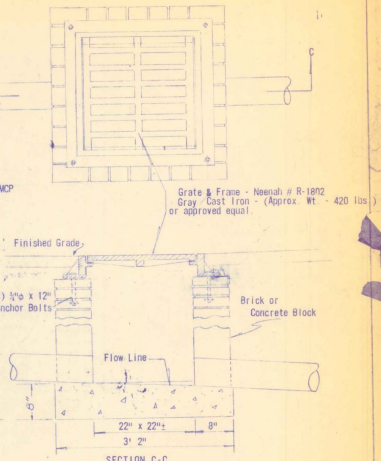
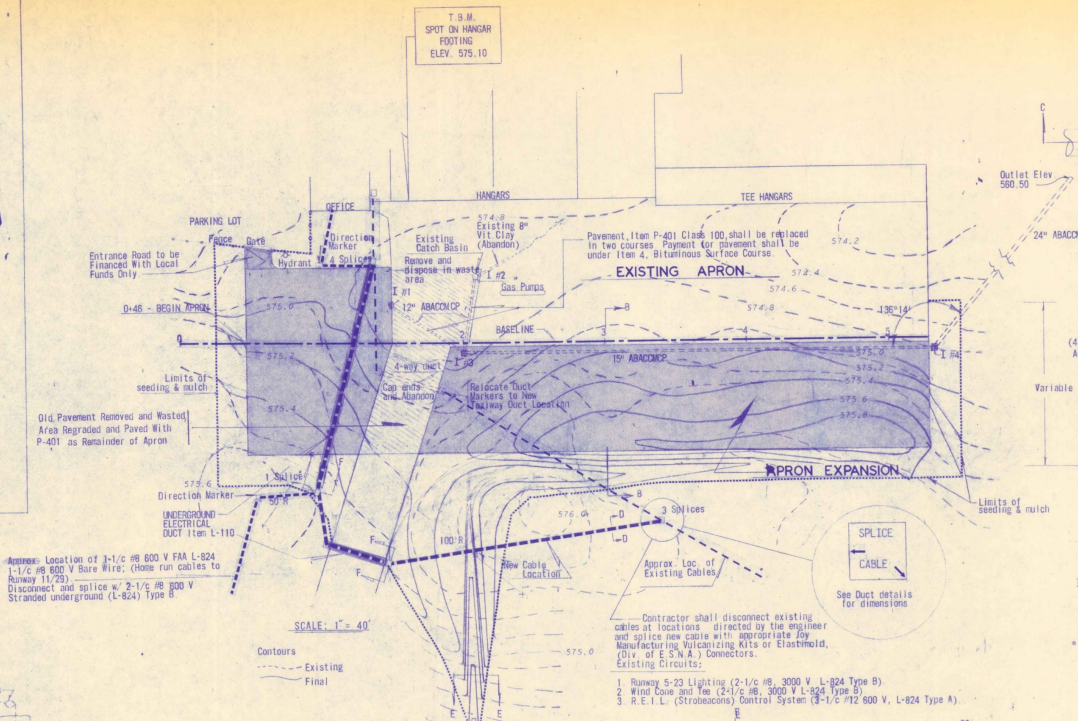


VICINITY MAP

SCALE IN MILES
 NOTE: SYMBOLS SAME AS THOSE WITH LOCATION MAP



GENERAL LAYOUT SHOWING SCOPE OF PROJECT

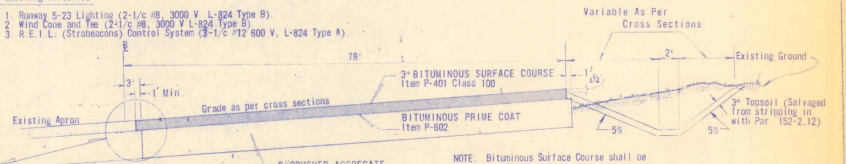


SECTION C-C
BRICK INLET
Not To Scale

DRAINAGE SCHEDULE

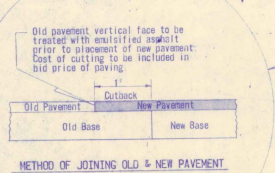
I. No.	Inv. El.*	Grate El.	Dist. To I. No. - At (Grade)	Pipe (ABACOMP)
1	570.51	574.80	84' to 3	1200
2	570.39	574.40	54' to 3	1200
3	569.71	574.20	32' to 4	0.500
4	568.06	575.00	404' to out.	1.875

* Center of D.I. - Construct flow line to match pipe gradient

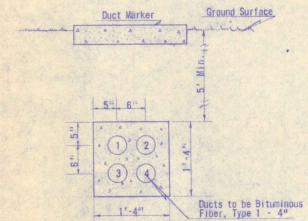


SECTION B-B
APRON TYPICAL
Scale: 1" = 10'-0" Horiz.
1" = 1'-0" Vert.

NOTE: Bituminous Surface Course shall be applied in two - 1 1/2" courses. Crushed Aggregate Base Course shall be applied in two - 3" courses.



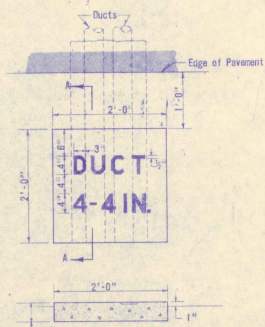
METHOD OF JOINING OLD & NEW PAVEMENT



UNDERGROUND ELECTRICAL DUCT

SECTION F-F
Scale: 1" = 1'-0"

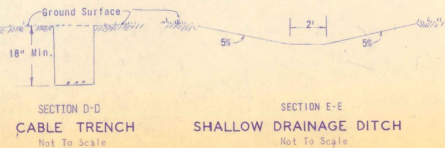
NOTE:
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Duct No. 2 shall contain cables to Runway 11-29 (Along duct only) and RETL control circuit.
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Tel. Cable installed in Duct 3 during construction.



SECTION A-A
UNDERGROUND ELECTRICAL DUCT MARKER
Scale: 1" = 1'-0"

2 Duct markers & 1 Direction marker required, cost of these 3 markers is to be included in bid price per lin. ft. of UNDERGROUND ELECTRICAL DUCT

AS BUILT PLANS
I HEREBY CERTIFY THAT ALL CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
DUFRESNE-HENRY ENGR. CORP.
BY _____ PROJECT ENGINEER
DATE _____



SECTION D-D
CABLE TRENCH
Not To Scale

SECTION E-E
SHALLOW DRAINAGE DITCH
Not To Scale

HAGNESS MUNICIPAL AIRPORT
NORTH SPRINGFIELD, VERMONT
SCOPE OF WORK - DETAILS - TYPICAL SECTIONS

DUFRESNE-HENRY
Engineering Corporation
1000 W. 10th St., Springfield, Vermont 05150
TELEPHONE: 874-4972

DATE: MAY 16, 1987
SHEET: 2 OF 2
DRAWN BY: RCH/TKT
CHECKED BY: J. DUFRESNE
APPROVED BY: J. DUFRESNE

**VERMONT AGENCY OF TRANSPORTATION
PLANNING DIVISION**

Hanger 5045

ONE

INITIALS

☐

Vermont Agency of
Transportation
Phase III- Interstate
#090303-01

HADINBS

1967

★ 9-43-004-C805

★ 9-43-004-C906 1970