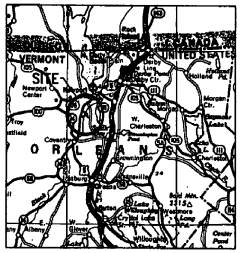
NEWPORT STATE AIRPORT

COVENTRY, VERMONT

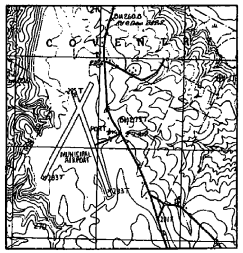
RECONSTRUCTION OF RUNWAY 18-36 , INSTALLATION OF RUNWAY AND TAXIWAY LIGHTS AND INSTALLATION OF AIRFIELD SIGNS



LOCATION MAP
APPROX. SCALE: 1" = 5 MILES

CONTRACT PLANS

THESE PLANS DO NOT REFLECT CHANGES MADE ON THE PROJECT.



VICINITY MAP
APPROX. SCALE: 1"=2000'

AIP NO. 3-50-0013-04
EA NO. 043142

SUMMARY OF AIP QUANTITIES

VAOT ITEM#	DESCRIPTION	UNIT	QUANTITIES EST.	QUANTITIES AS BUILT
201.10	CLEARING & GRUBBING (PLUS INDIVIDUAL TREES AND STUMPS)	L.S.	1	
203.15	EXCAVATION	C.Y.	4,200	
204.20	TRENCH EXCAVATION OF EARTH	C.Y.	12,800	
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE(MOD)(P-154)	C.Y.	3,700	
404.45	TAR EMULSION (MOD)(P-603)	GAL	8,900	
408.50	PRICE ADJUSTMENT ASPHALT CEMENT (N.A.B.I)	L.S.	1	
601.0805	12" REINFORCED CONCRETE PIPE, TYPE III	L.F.	1,750	
601.0815	18" REINFORCED CONCRETE PIPE, TYPE III	L.F.	650	
601.0826	24" REINFORCED CONCRETE PIPE, TYPE IV	L.F.	2,700	
602.19	CEMENT RUBBLE MASONRY HEADWALL	C.Y.	9	
604.10	CONCRETE CATCH BASIN W/CAST IRON GRATE	EACH	18	
604.11	CONCRETE MANHOLE W/CAST IRON COVER	EACH	2	
604.21	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER (MOD) (D-752)	EACH	1	
604.40	CHANGING ELEVATIONS OF D.I.CB OR MH	EACH	3	
605.10	6" PERFORATED UNDERDRAIN	L.F.	10,000	
605.20	6" UNDERDRAIN CARRIER PIPE	L.F.	150	
605.90	UNDERDRAIN RISER	EACH	28	
605.95	UNDERDRAIN FLUSHING BASIN	EACH	28	
613.16	RIPRAP,LIGHT TYPE	C.Y.	100	
631.10	FIELD OFFICE - ENGINEERS	L.S.	1	
631.16	TESTING EQUIPMENT - CONCRETE	L.S.	1	
631.17	TESTING EQUIPMENT - BITUMINOUS	L.S.	1	
631.25	FIELD OFFICE TELEPHONE (N.A.B.I.)	L.U.	1	
635.10	MOBILIZATION	L.S.	1	
636.20	UTILITY VAULT (MOD) (L-120)	L.S.	1	

SUMMARY OF AIP QUANTITIES

VAOT ITEM#	DESCRIPTION	UNIT	QUANTITIES EST.	QUANTITIES AS BUILT
649.51	GEOTEXTILE FOR SILT FENCE	S.Y.	110	
651.15	SEED	LB	500	
651.25	HAY MULCH	TON	25	
651.26	HAY BALES FOR EROSION CONTROL	EACH	400	
651.35	TOPSOIL	C.Y.	1,500	
678.23	WIRED CONDUIT (1") (MOD) (L-110)	L.F.	9,850	
678.24	ELECTRICAL WIRING (MOD) (L-108)	L.F.	10,500	
854.01	P-602 BITUMINOUS PRIME COAT	GAL	6,900	
854.03	P-625 TAR EMULSION PROTECTIVE SEAL COAT	GAL	2,125	
854.04	P-209 CRUSHED AGGREGATE BASE COURSE	C.Y.	6,400	
864.01	P-208A COLD MIXED RECYCLED BASE COURSE	C.Y.	14000	
864.02	P-401 BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	TON	12,575	
864.03	P-620 RUNWAY AND TAXI PAINTING (WHITE)	S.F.	31,000	
864.03	P-620 RUNWAY AND TAXI PAINTING (BLACK)	S.F.	4,500	
864.03	P-620 RUNWAY AND TAXI PAINTING (YELLOW)	S.F.	2,900	
864.04	L-108 CABLE TRENCH (MOD) (SAW CUTTING P-410)	L.F.	815	
864.06	L-108 #8 COUNTERPOISE WIRE	L.F.	10,500	
864.09	L-110 4-WAY X 4" DIA. U.G. ELECTRICAL DUCT	L.F.	32	
864.10	L-125 MEDIUM INTENSITY R/W LTS, BASE MTD. (MOD) (END LIGHTS)	EACH	14	
864.10	L-125 MEDIUM INTENSITY R/W LTS, BASE MTD.	EACH	42	
864.11	L-125 MEDIUM INTENSITY TAXIWAY LTS, BASE MTD.	EACH	17	
864.12	L-125 PRECISION APPROACH PATH INDICATOR	EACH	1	
864.13	L-125 RUNWAY END IDENTIFIER LIGHTS	EACH	2	
864.13	L-125 RUNWAY END IDENTIFIER LIGHTS (MOD) (3 PANEL HOLD SIGN) (RELOCATION)	EACH	1	
864.15	L-125 THRESHOLD LIGHTS(MOD)(MARKERS RETROREFLECTIVE)	EACH	38	

LIST OF STANDARDS

AP-1
AP-2
AP-3
AP-4
AP-9
AP-10
AP-11
AP-12
D-4
D-8
D-11
D-13
D-15
D-16
T-1
T-2

THESE PLANS AND SPECIFICATIONS ARE IN ACCORDANCE WITH CRITERIA IN CURRENT FAA ADVISORY CIRCULARS AS OF MAY 1, 1995.

DATE

NO.	REVISONS	DATE
1	VAOT COMMENTS AND SURVEY ADJUSTMENTS	1/18/01

Revised 03/19/01

INDEX OF DRAWINGS

SHT. #	DESCRIPTION
TI	TITLE SHEET
PL-1	PROJECT LAYOUT & OPERATIONS PLAN
DP-1	DEMOLITION PLAN
RW-1	RUNWAY 18-36 PLAN & PROFILE
RW-2	RUNWAY 18-36 PLAN & PROFILE
RW-3	RUNWAY 18-36 PLAN & PROFILE
RW-4	RUNWAY 18-36 PLAN & PROFILE
RW-5	RUNWAY INTERSECTION GRADING PLAN
RW-6	RUNWAY 5-23 PLAN & PROFILE
TW-1	TAXIWAY A PLAN & PROFILE
TW-2	TAXIWAY B PLAN & PROFILE
AP-1	APRON GRADING PLAN
XS-1	CROSS SECTIONS RUNWAY 18-36 (STA. 12+00 TO 16+50)
XS-2	CROSS SECTIONS RUNWAY 18-36 (STA. 17+00 TO 21+50)
XS-3	CROSS SECTIONS RUNWAY 18-36 (STA. 22+00 TO 26+50)
XS-4	CROSS SECTIONS RUNWAY 18-36 (STA. 27+00 TO 31+50)
XS-5	CROSS SECTIONS RUNWAY 18-36 (STA. 32+00 TO 36+50)
XS-6	CROSS SECTIONS RUNWAY 18-36 (STA. 37+00 TO 42+00)
XS-7	CROSS SECTIONS RUNWAY 18-36 (STA. 42+50 TO 47+00)
XS-8	CROSS SECTIONS RUNWAY 18-36 (STA. 47+50 TO 52+00)
XS-9	CROSS SECTIONS RUNWAY 5-23 (STA. 37+00 TO 42+50)
TS-1	TYPICAL SECTION & PAVING DETAILS
PM-1	PAVEMENT MARKING DETAILS
PM-2	PAVEMENT MARKING DETAILS
LP-1	RUNWAY & TAXIWAY LIGHTING PLAN
LP-2	RUNWAY & TAXIWAY LIGHTING PLAN
DE-1	DRAINAGE & EROSION CONTROL DETAILS
DE-2	RUNWAY & TAXIWAY ELECTRICAL DETAILS
DE-3	RUNWAY MARKING DETAILS
PP-1	PAPI MOUNTING PLAN, SECTIONS AND FOUNDATION PLAN
PP-2	PAPI GENERAL INSTALLATION DETAILS
PP-3	PAPI POWER AND CONTROLS STATION AND FOUNDATION PLAN
PP-4	PAPI WIRING, ELECTRIC ROOM DIAGRAM AND DETAILS

FEDERAL AVIATION ADMINISTRATION

APPROVED: CHIEF, AIRPORT ENGINEER AND SAFETY BRANCH DATE

VERMONT AGENCY OF TRANSPORTATION

David C Dix Feb 14, 2001

APPROVED: DIRECTOR OF MAINTENANCE AND AVIATION DATE

PREPARED BY

DuBOIS AND KING, INC.

P.O. BOX 339.....RANDOLPH, V.T. 05060.....TEL. (802) 728-3378

APPROVED: DATE

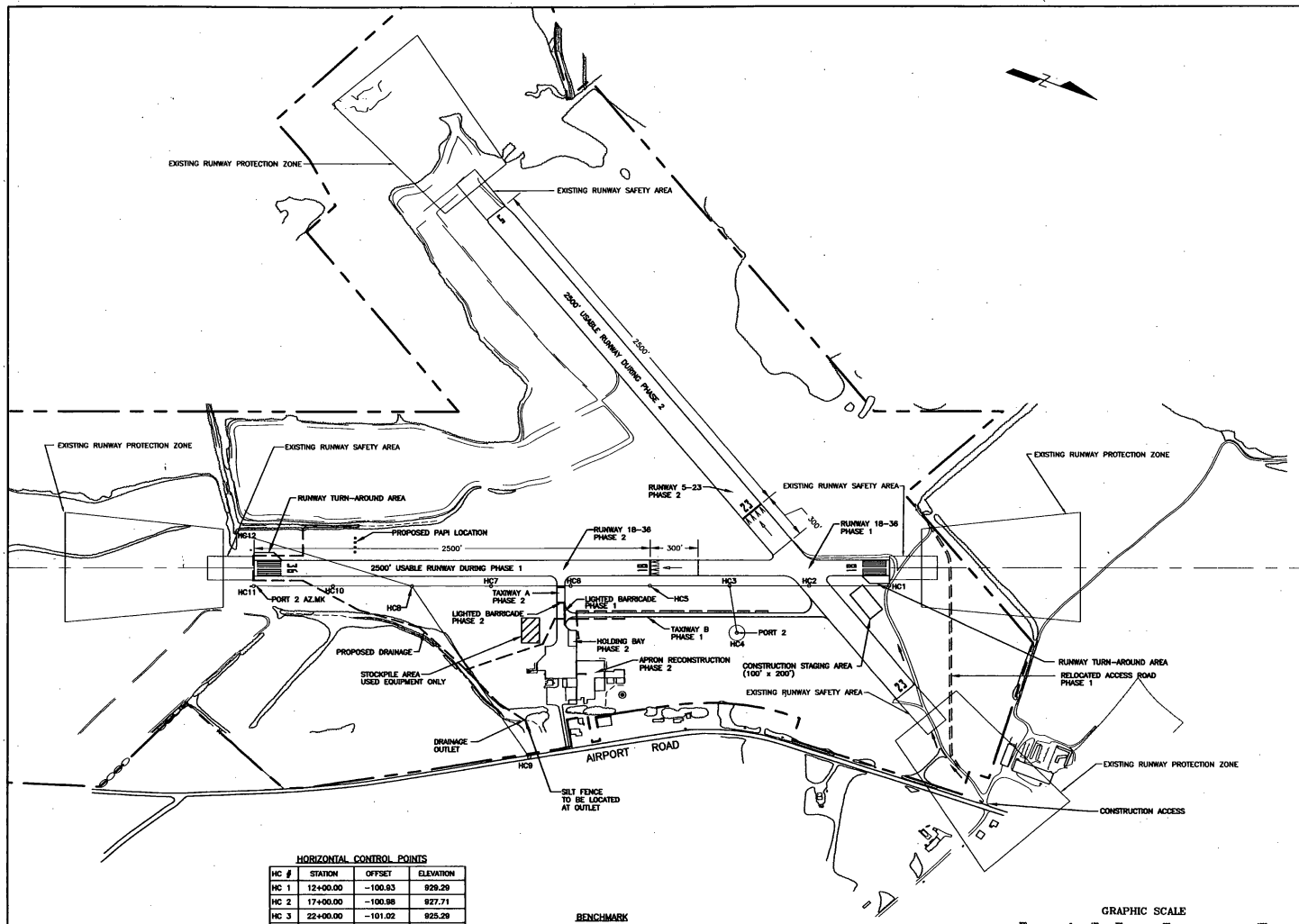
Ellen Clemens
Director of Finance and Administration
or Duly Authorized Agent

2/14/01
Date

Scott Construction Inc. 3/14 S.C.E. Group
Contractor

Signature

President
Title



GRAPHIC SCALE

(IN FEET)
1 inch = 300 ft.

CONSTRUCTION AND OPERATIONAL NOTES:

1. THE AIRPORT SHALL BE OPEN AND USEABLE DURING DAYLIGHT HOURS THROUGHOUT THE DURATION OF CONSTRUCTION EXCEPT DURING RECONSTRUCTION OF TAXIWAY A AND THE APRON. (SEE NOTE 4)

2. CONSTRUCTION DURATION FOR THE PROJECT IS 14 WEEKS. RUNWAY LIGHTING MAY BE OUT OF OPERATION FOR NO MORE THAN 6 WEEKS.

3. CONSTRUCTION SHALL BE CARRIED OUT IN TWO PHASES.

PHASE 1 SHALL CONSIST OF THE CONSTRUCTION OF TAXIWAY B, AND THE RECONSTRUCTION OF THE NORTHERN 1200 FEET OF RUNWAY 18–36. RUNWAY 5–23 SHALL REMAIN CLOSED DURING PHASE 1 CONSTRUCTION.

PHASE 2 SHALL CONSIST OF THE RECONSTRUCTION OF THE SOUTHERN 2800 FEET OF RUNWAY 18–36, RECONSTRUCTION OF TAXIWAY A, RECONSTRUCTION OF THE APRON, AND CONSTRUCTION OF THE HOLDING BAY. RUNWAY 18–36 SHALL REMAIN CLOSED DURING PHASE 2 CONSTRUCTION.

4. ALL WORK PERTAINING TO THE RECONSTRUCTION OF TAXIWAY A AND THE APRON, INCLUDING DRAINAGE, SHALL BE SCHEDULED SO THAT THE CONNECTION BETWEEN THE EXISTING TERMINAL AREA AND TAXIWAY B IS CLOSED FOR NO MORE THAN 72 HOURS. THE DAYS OF THE CLOSURE SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND THE RESIDENT ENGINEER. (SEE NOTE 17)

5. THE CONTRACTOR SHALL ESTABLISH MARKINGS FOR THE DISPLACED THRESHHOLD FOR RUNWAY 18–36, AND CLOSURE OF RUNWAY 5–23 PRIOR TO MOVING EQUIPMENT INTO THE STAGING OR STOCKPILE AREAS. RUNWAY 18–36 WILL HAVE A DISPLACED THRESHOLD DURING PHASE 1 CONSTRUCTION AND WILL BE CLOSED DURING PHASE 2 CONSTRUCTION. RUNWAY 5–23 WILL BE CLOSED DURING PHASE 1 CONSTRUCTION AND HAVE A DISPLACED THRESHOLD DURING PHASE 2 CONSTRUCTION.

6. AN AREA 250 FEET EACH SIDE OF THE CENTER OF RUNWAY, AND 300 FEET FROM RUNWAY ENDS SHALL BE KEPT CLEAR AT ALL TIMES WHEN RUNWAYS ARE OPEN AND OPERATIONAL UNLESS PRIOR APPROVAL IS RECEIVED FROM BOTH THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.

7. CONSTRUCTION ACCESS WILL BE FROM AIRPORT ROAD AS INDICATED. THERE WILL BE NO CONSTRUCTION ACCESS ALLOWED DIRECTLY THROUGH EXISTING PAVED AIRPORT FACILITIES.

8. CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED TO USE EXISTING PAVED AIRPORT SURFACES FOR CONSTRUCTION ACCESS OR OPERATION DURING CONSTRUCTION.

9. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A SCHEDULE OF WORK FOR APPROVAL BY ENGINEER PRIOR TO STARTING ANY CONSTRUCTION. THE SCHEDULE SHALL INDICATE DATES FOR ALL RUNWAY AND TAXIWAY CLOSURES AND MUST BE UPDATED BI–WEEKLY IF SEQUENCE OR DURATIONS CHANGE.

10. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING AND PLACING AN "X" ON THE RUNWAY NUMERALS TO SIGNIFY WHEN A RUNWAY IS CLOSED. MARKINGS MAY BE PLACED JUST OFF THE RUNWAY ENDS WHEN THE CONTRACTOR IS WORKING IN THE NUMERAL AREAS.

11. THE CONTRACTOR WILL BE REQUIRED TO INSTALL AND MAINTAIN LIGHTED BARRICADES AND TEMPORARY SIGNAGE AS NECESSARY THROUGHOUT CONSTRUCTION. THESE BARRICADES AND SIGNS SHALL CONFORM TO THE DETAILS CONTAINED HEREIN AND NOTE 18.

12. CONSTRUCTION STAGING AND STOCKPILE AREAS SHALL BE CONFINED TO THOSE AREAS INDICATED ON THE PLANS.

13. ALL DISTURBED AREAS OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE RESTORED TO THEIR PRECONSTRUCTION CONDITION AT NO COST TO THE OWNER. THIS SHALL INCLUDE THE AREAS DESIGNATED FOR CONSTRUCTION ACCESS, STAGING, MATERIAL STORAGE AND STOCKPILING.

14. ALL EXISTING RUNWAY AND TAXIWAY LIGHTS, AND RUNWAY END IDENTIFICATION LIGHTS SHALL BE SALVAGED AND SHALL REMAIN THE PROPERTY OF THE VERMONT AGENCY OF TRANSPORTATION. SALVAGED ITEMS SHALL BE STOCKPILED ON SITE UNTIL REMOVED BY THE OWNER.

15. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ANY AND ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.

16. NOTICE TO AIRMEN (NOTAM'S) MUST BE ISSUED BY THE AIRPORT MANAGER, PRIOR TO ANY CHANGES TO AIRPORT OPERATIONS. NOTAM'S MUST BE ISSUED AT LEAST 48 HOURS IN ADVANCE OF ANY AIRPORT STATUS CHANGE. THERE CAN BE NO EXCEPTIONS. THE CONTRACTOR SHALL BE REQUIRED TO COORDINATE THIS EFFORT WITH THE AIRPORT MANAGER AND RESIDENT ENGINEER.

17. AIRPORT CLOSURE MUST BE DURING WEEKDAYS AND ENDING PRIOR TO NOON ON FRIDAY.

18. THE CONTRACTOR SHALL COMPLY WITH ALL THE PROVISIONS STATED IN THE FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR ON "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", FAA AC. NO. 150/5370–2C. FLASHING AMBER LIGHTS WILL BE REQUIRED ON ALL CONSTRUCTION VEHICLES.

19. THE CONTRACTOR SHALL CONSTRUCT RUNWAY TURN–AROUND AREAS AT EACH END OF RUNWAY 18–36. AS DIRECTED BY THE ENGINEER

APROXIMATI QUANTITIES FOR THISE 2 AREAS ARE :

ITEM	DESCRIPTION	UNIT	QUANTITY
203.15	EXCAVATION	CY	450
404.65	EMULSIFIED ASPHALT	GAL	170
651.15	SEED	LB	9
651.25	MULCH	TON	0.4
651.35	TOPSOIL	CY	216
654.04	CRUSHED AGG. BASE COURSE	CY	300
684.02	BITUMINOUS CONCRETE PAVEMENT	TON	320

HORIZONTAL CONTROL POINTS

HC #	STATION	OFFSET	ELEVATION
HC 1	12+00.00	–100.83	929.29
HC 2	17+00.00	–100.98	927.71
HC 3	22+00.00	–101.02	925.29
HC 4	21+53.18	–400.31	923.02
HC 5	27+00.00	–101.07	923.45
HC 6	32+00.00	–101.12	921.08
HC 7	37+00.00	–101.17	919.78
HC 8	42+00.00	–101.21	918.33
HC 9	36+60.11	–1193.99	901.44
HC 10	47+00.00	–101.25	916.38
HC 11	52+00.00	–101.30	916.16
HC 12	53+15.00	239.84	913.36

CONTRACTOR SHALL NOT DISTURB HORIZONTAL OR VERTICAL CONTROL POINTS. CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO THESE POINTS AND SHALL BE RESPONSIBLE FOR ANY COSTS INCURRED BY THE OWNER TO FIX OR REPLACE.

BENCHMARK

PORT 2 ELEV. = 923.02
BRASS NGS DISK SET IN CONCRETE

HORIZONTAL CONTROL

PORT 2 AZ.MK N 887765.22
BRASS NGS DISK SET IN CONCRETE E 1711899.06

PORT 2 N 871721.64
BRASS NGS DISK SET IN CONCRETE E 1711104.01

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18–36 RECONSTRUCTION
PROJECT LAYOUT AND OPERATIONS PLAN

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET PL–1

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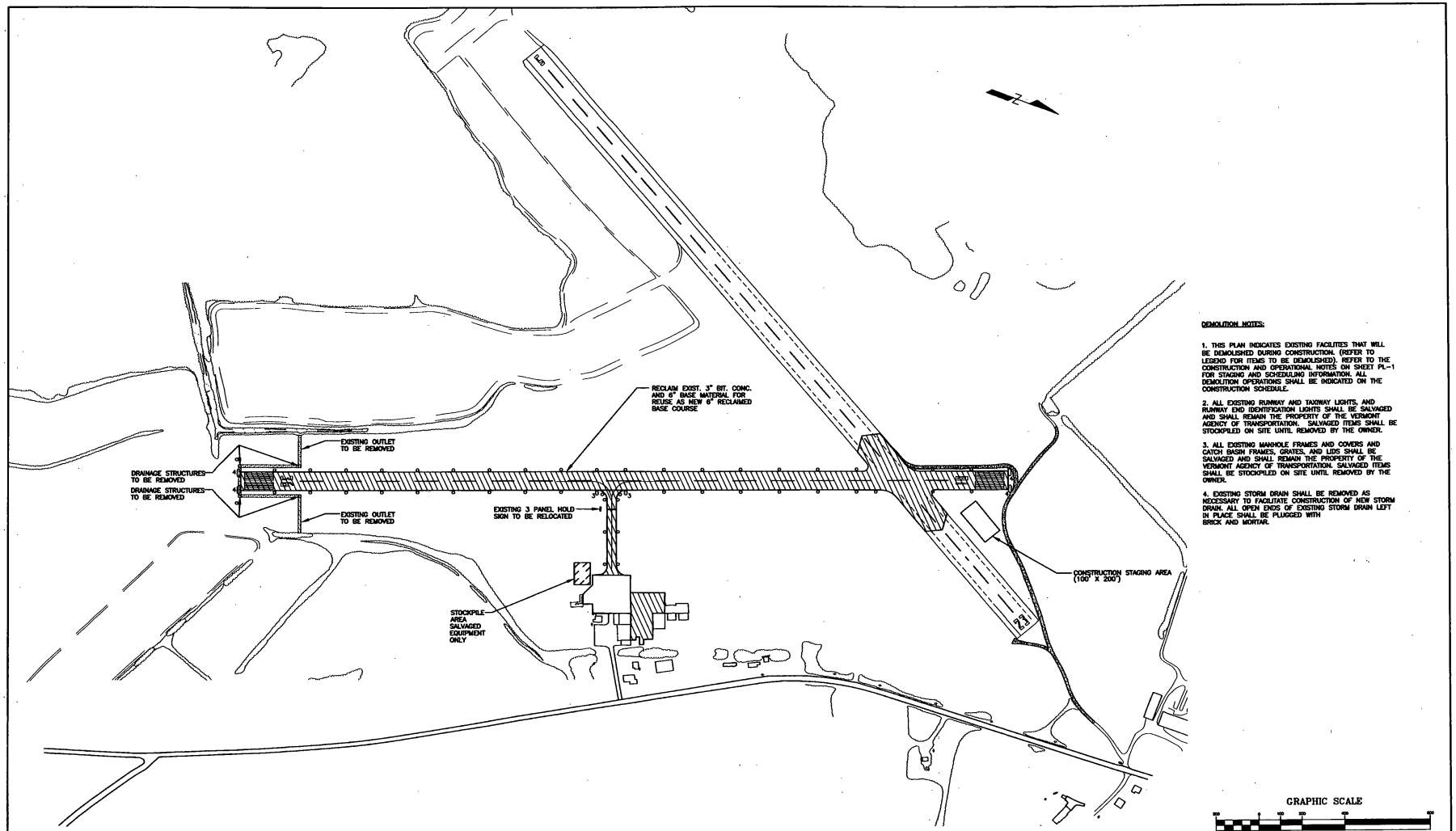

DEMOLITION NOTES:

1. THIS PLAN INDICATES EXISTING FACILITIES THAT WILL BE DEMOLISHED DURING CONSTRUCTION. (REFER TO LEGEND FOR ITEMS TO BE DEMOLISHED). REFER TO THE CONSTRUCTION AND OPERATIONAL NOTES ON SHEET PL-1 FOR STAGING AND SCHEDULING INFORMATION. ALL DEMOLITION OPERATIONS SHALL BE INDICATED ON THE CONSTRUCTION SCHEDULE.

2. ALL EXISTING RUNWAY AND TAXIWAY LIGHTS, AND RUNWAY END IDENTIFICATION LIGHTS SHALL BE SALVAGED AND SHALL REMAIN THE PROPERTY OF THE VERMONT AGENCY OF TRANSPORTATION. SALVAGED ITEMS SHALL BE STOCKPILED ON SITE UNTIL REMOVED BY THE OWNER.

3. ALL EXISTING MANHOLE FRAMES AND COVERS AND CATCH BASIN FRAMES, GRATES, AND LIDS SHALL BE SALVAGED AND SHALL REMAIN THE PROPERTY OF THE VERMONT AGENCY OF TRANSPORTATION. SALVAGED ITEMS SHALL BE STOCKPILED ON SITE UNTIL REMOVED BY THE OWNER.

4. EXISTING STORM DRAIN SHALL BE REMOVED AS NECESSARY TO FACILITATE CONSTRUCTION OF NEW STORM DRAIN. ALL OPEN ENDS OF EXISTING STORM DRAIN LEFT IN PLACE SHALL BE PLUGGED WITH BRICK AND MORTAR.

GRAPHIC SCALE

(IN FEET)
1 inch = 200 ft.

LEGEND

- = PAVEMENT TO BE RECLAIMED (9")
- = OUTLET TO BE REMOVED
- = ROAD TO BE OBLITERATED
- ○ = RUNWAY LIGHTS TO BE REMOVED
- □ = DRAINAGE STRUCTURES TO BE REMOVED

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION

DEMOLITION PLAN

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET DP-1

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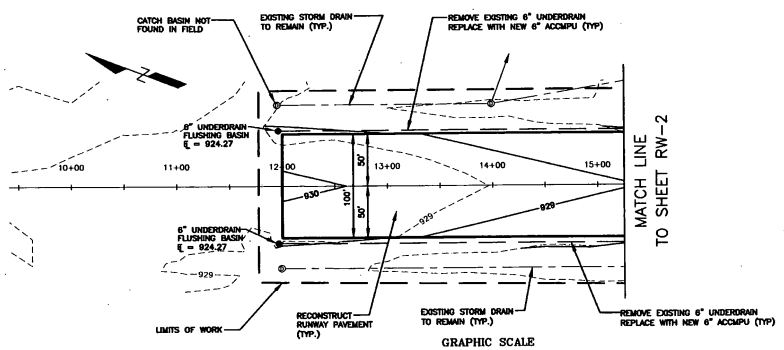
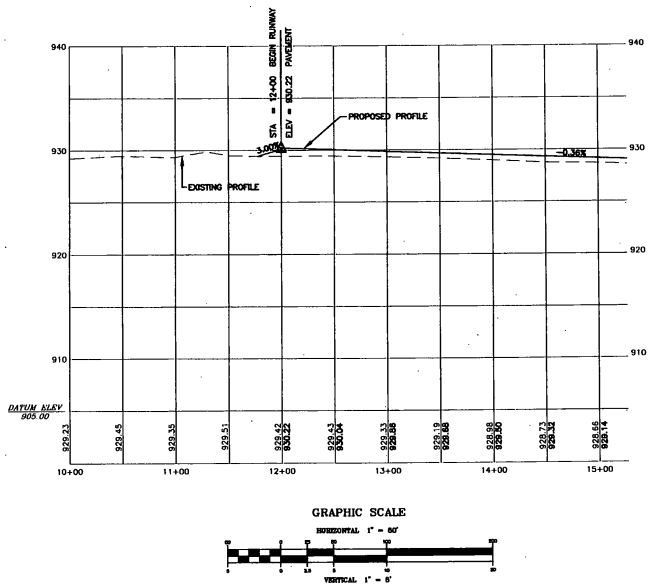




LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

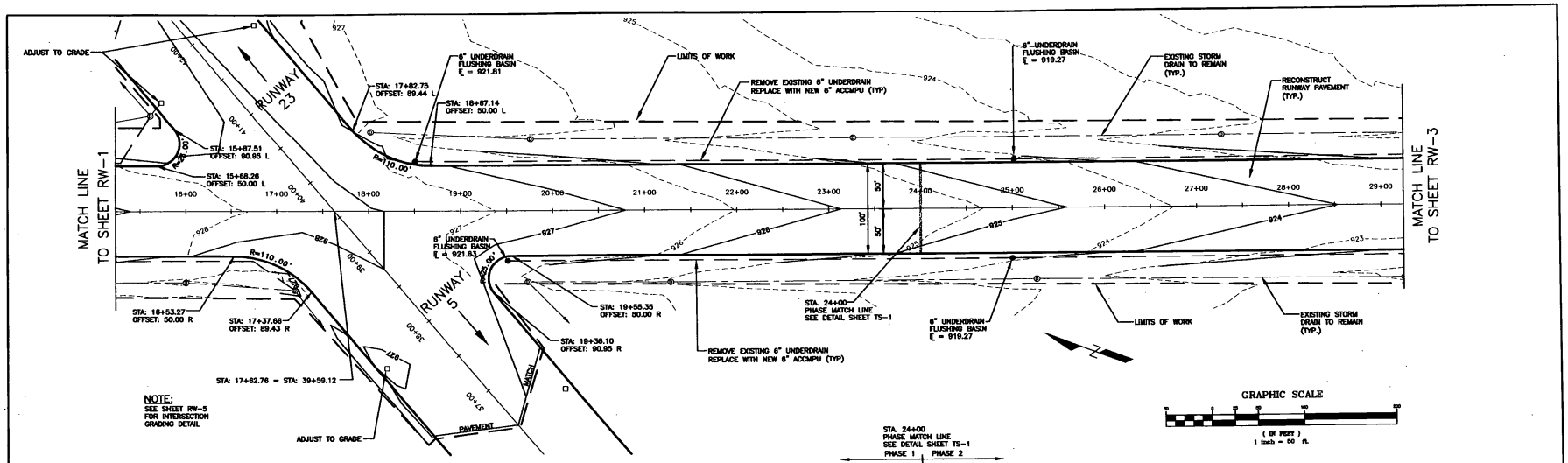
NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

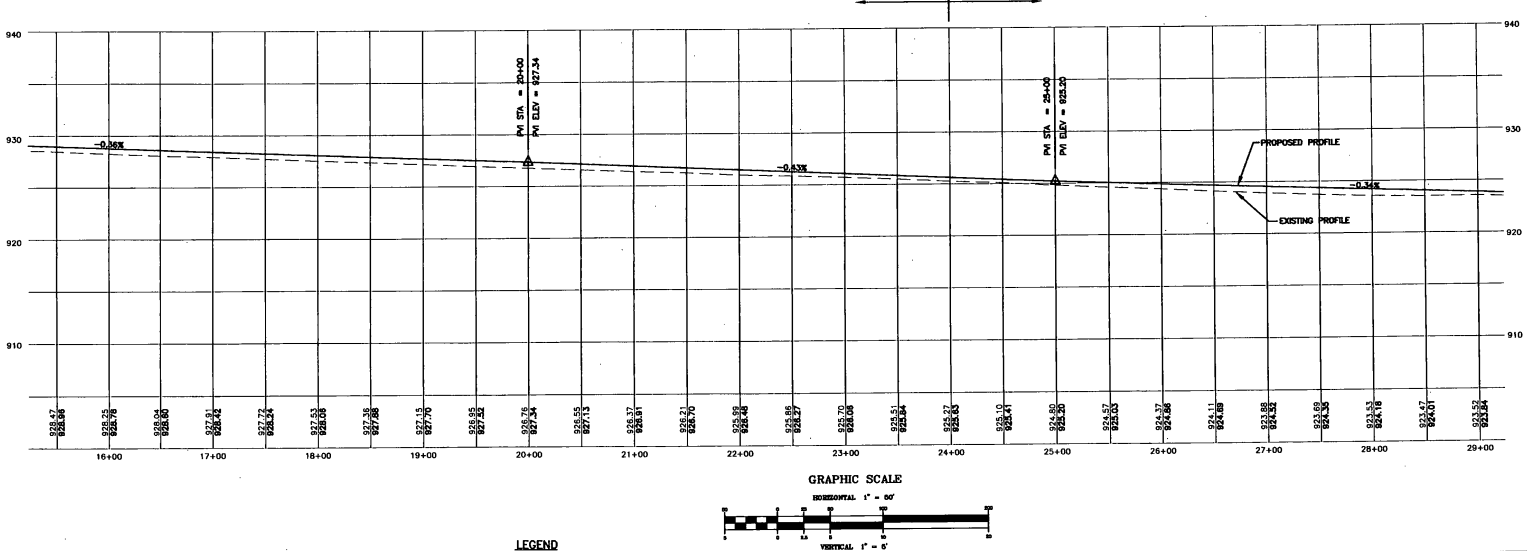
DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY 18-36 PLAN & PROFILE
STA. 10+00 TO 15+25

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET RW-1





GRAPHIC SCALE
HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY 18-36 PLAN & PROFILE
STA. 15+25 TO 29+25

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET RW-2

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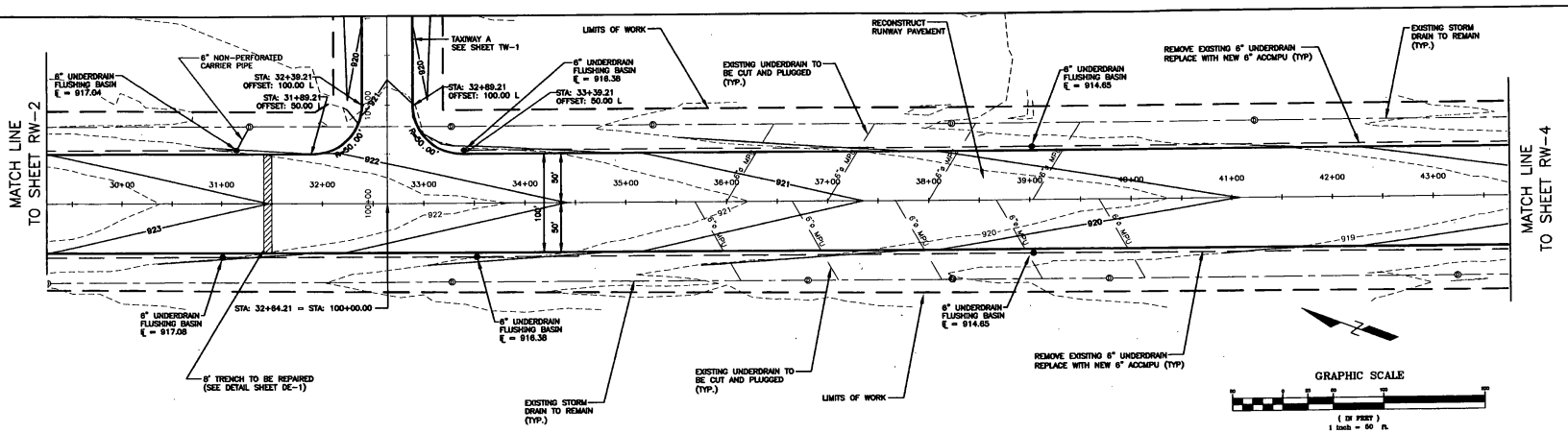

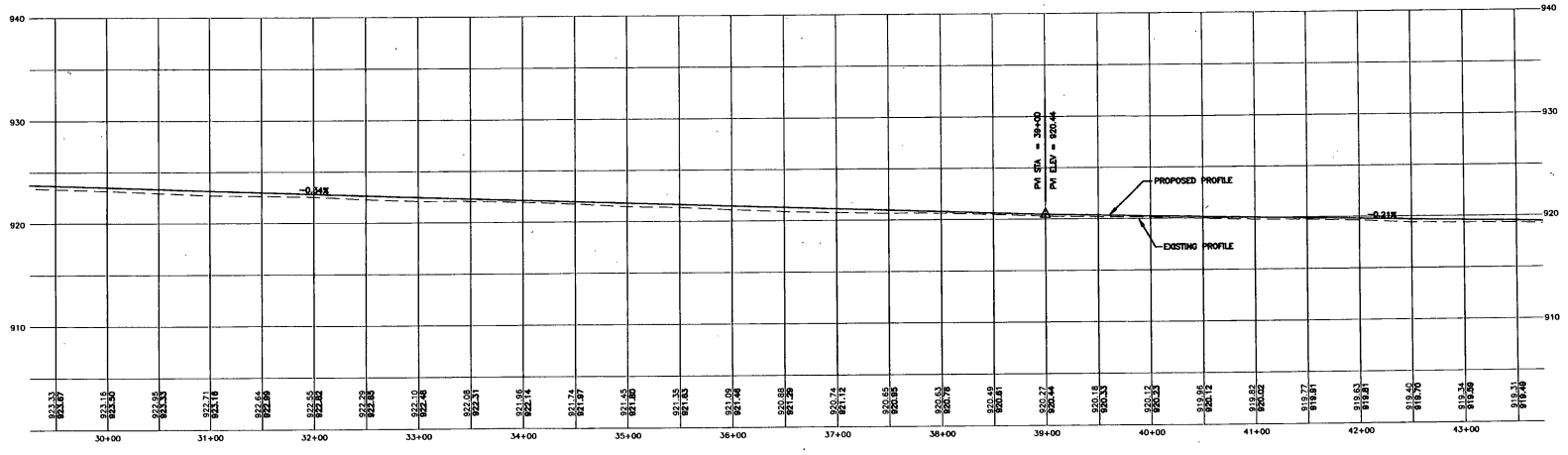

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY 18-36 PLAN & PROFILE
STA. 29+25 TO 43+75

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1
SHEET RW-3	

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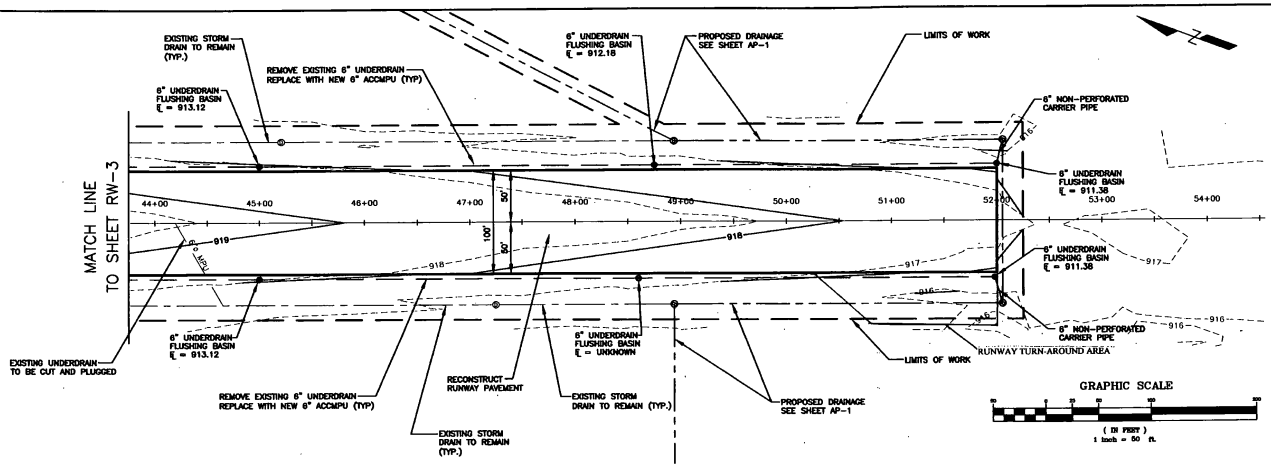

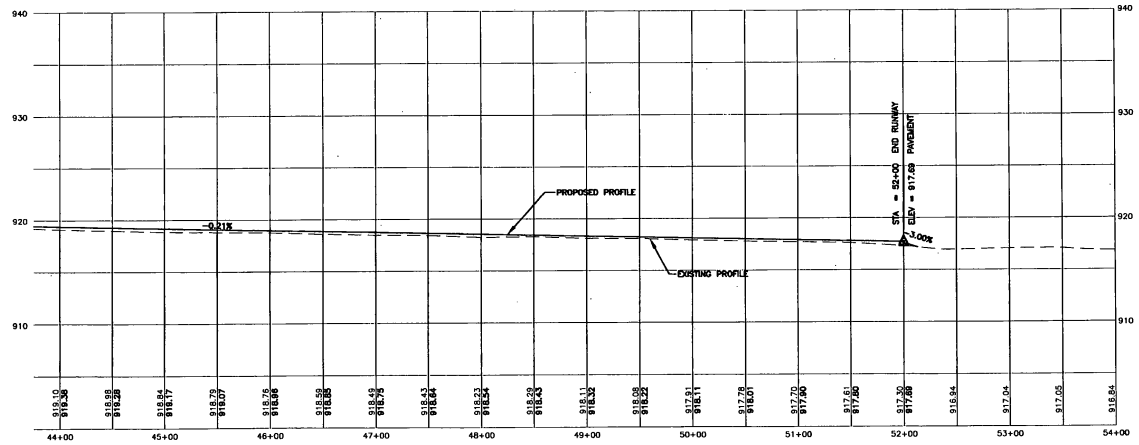

GRAPHIC SCALE

HORIZONTAL 1" = 50'

VERTICAL 1" = 5'

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.

engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY 18-36 PLAN & PROFILE
STA. 43+75 TO 54+00

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET RW-4

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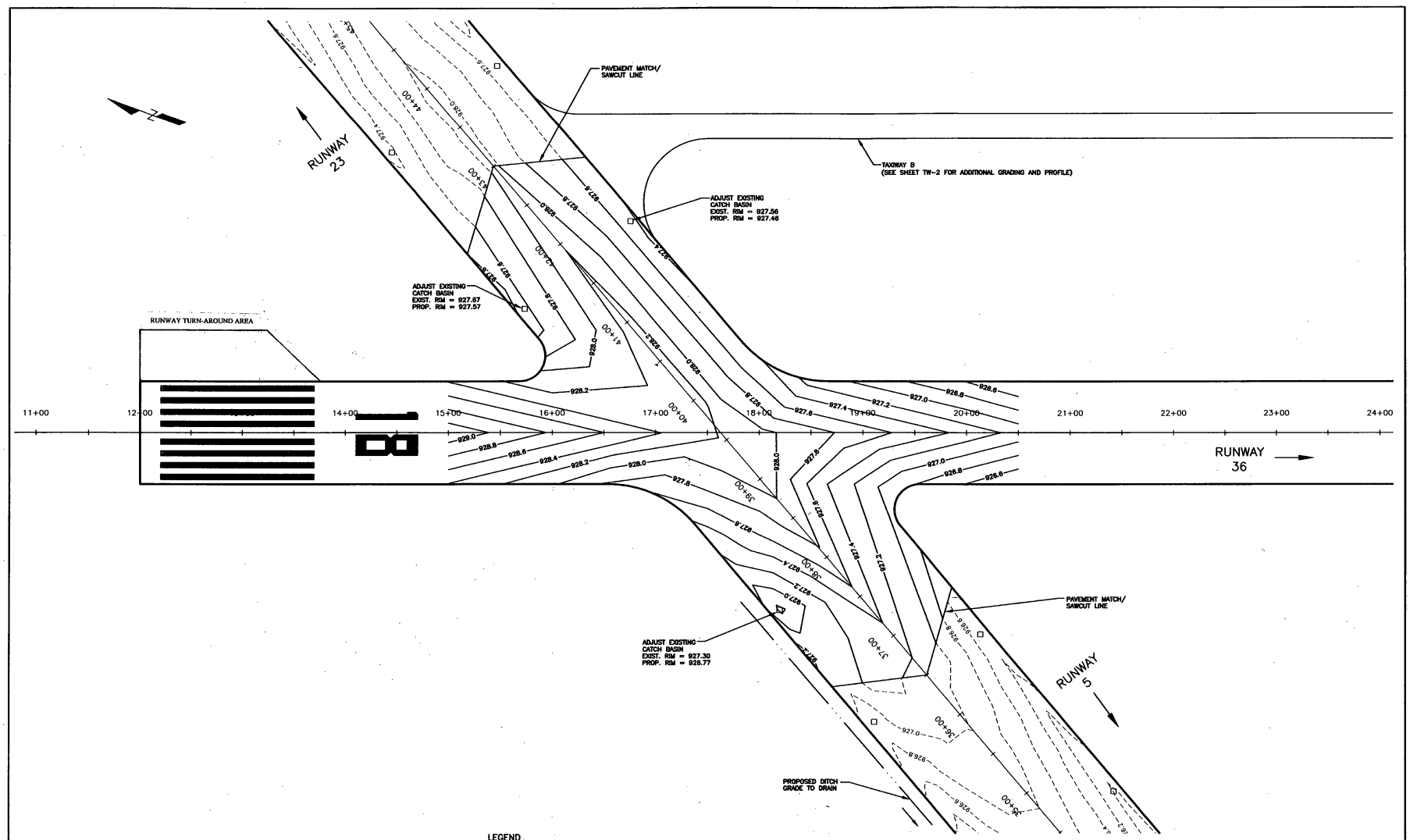


GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

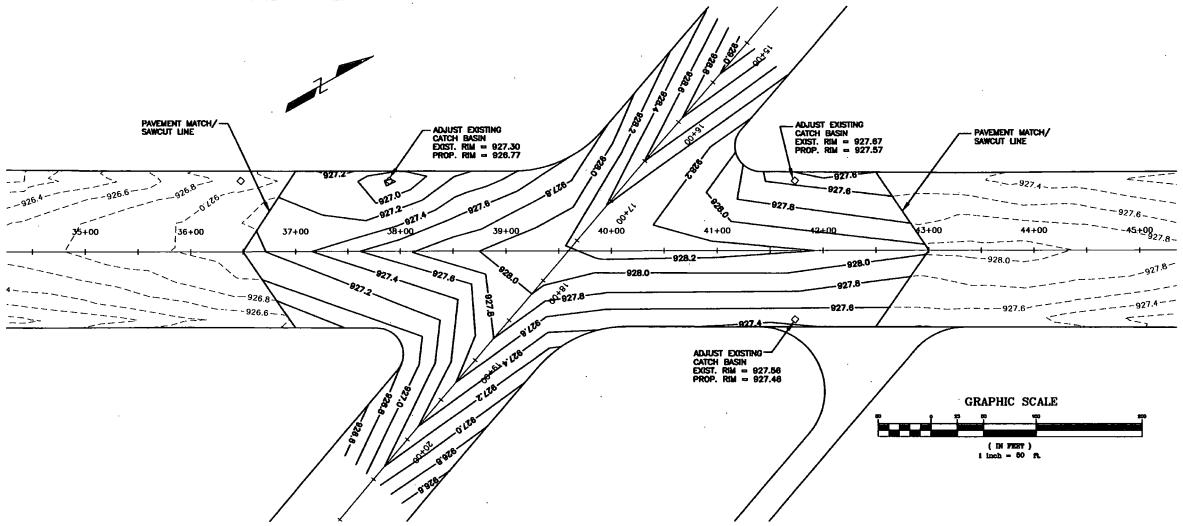
NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

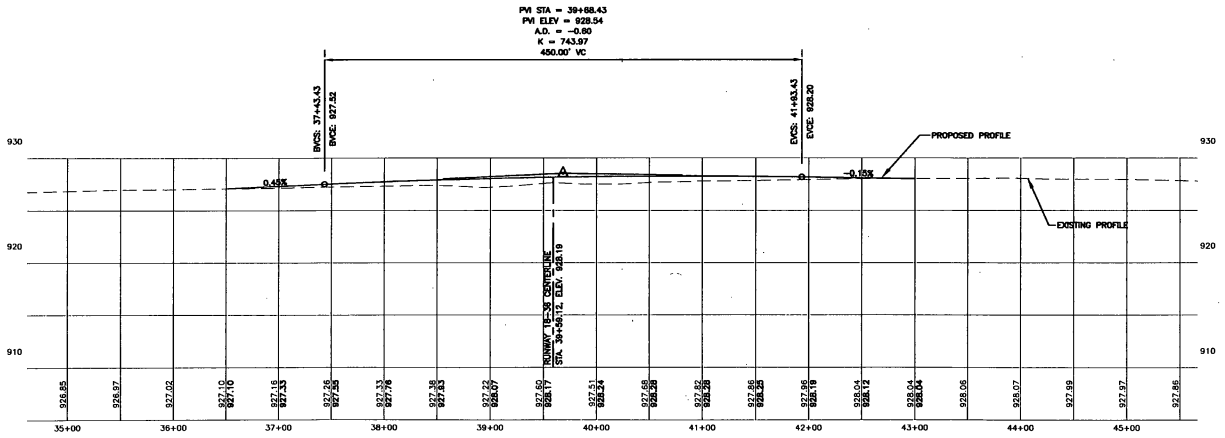
DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY INTERSECTION GRADING PLAN

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET RW-5





LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY 5-23 PLAN & PROFILE
STA. 25+50 TO 35+50

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY: JAA	PROJ. NO.: N15500
PROJ. ENG.:	DRAW. NO.: 1

SHEET RW-6

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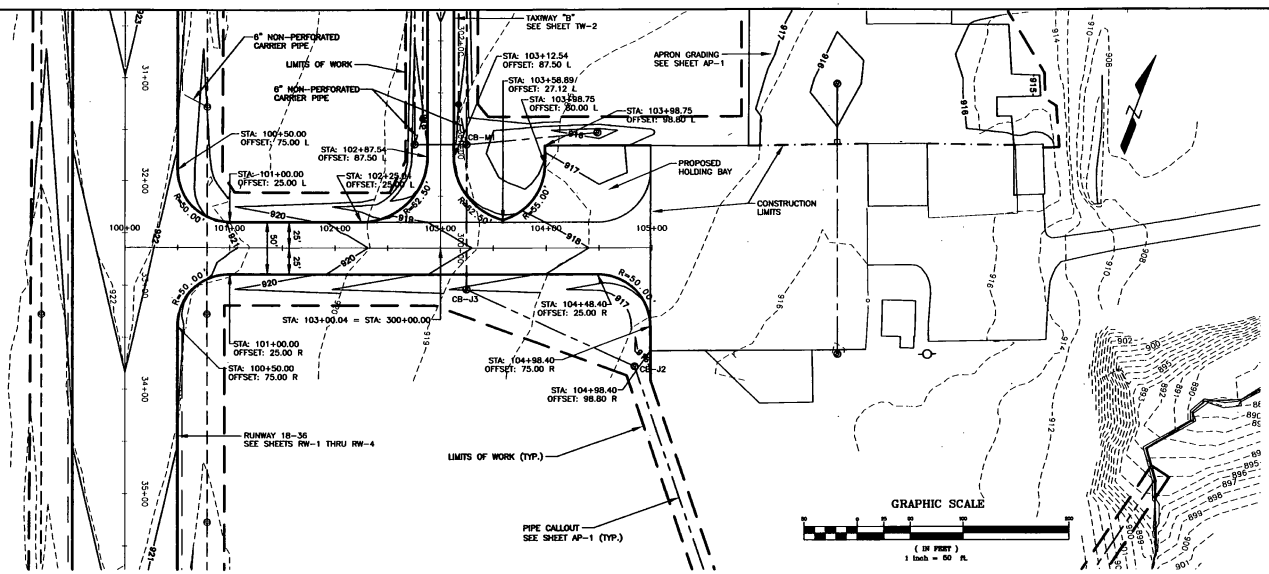

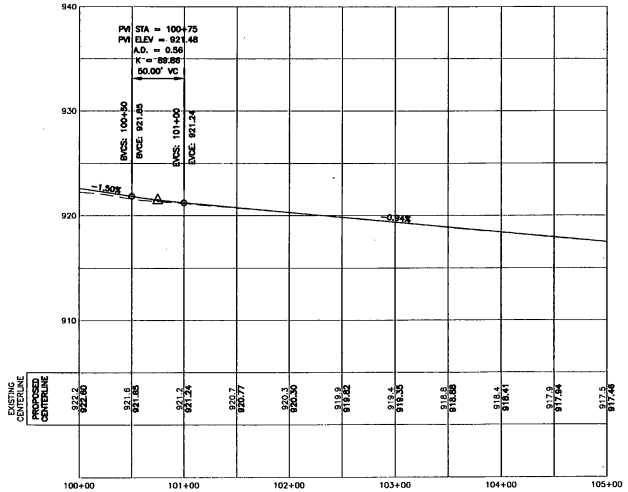

NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING LIGHTING CIRCUITS AND REPORT THEM TO THE RESIDENT ENGINEER PRIOR TO CONSTRUCTION.

2. DRAINAGE WORK FROM CATCH BASIN M1 TO CATCH BASIN J3 TO CATCH BASIN J2 SHALL BE CONSTRUCTED DURING THE 3 DAY AIRPORT CLOSURE PERIOD. (SEE NOTE 4 ON SHEET PL-1)

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION

TAXIWAY A PLAN & PROFILE

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET TW-1

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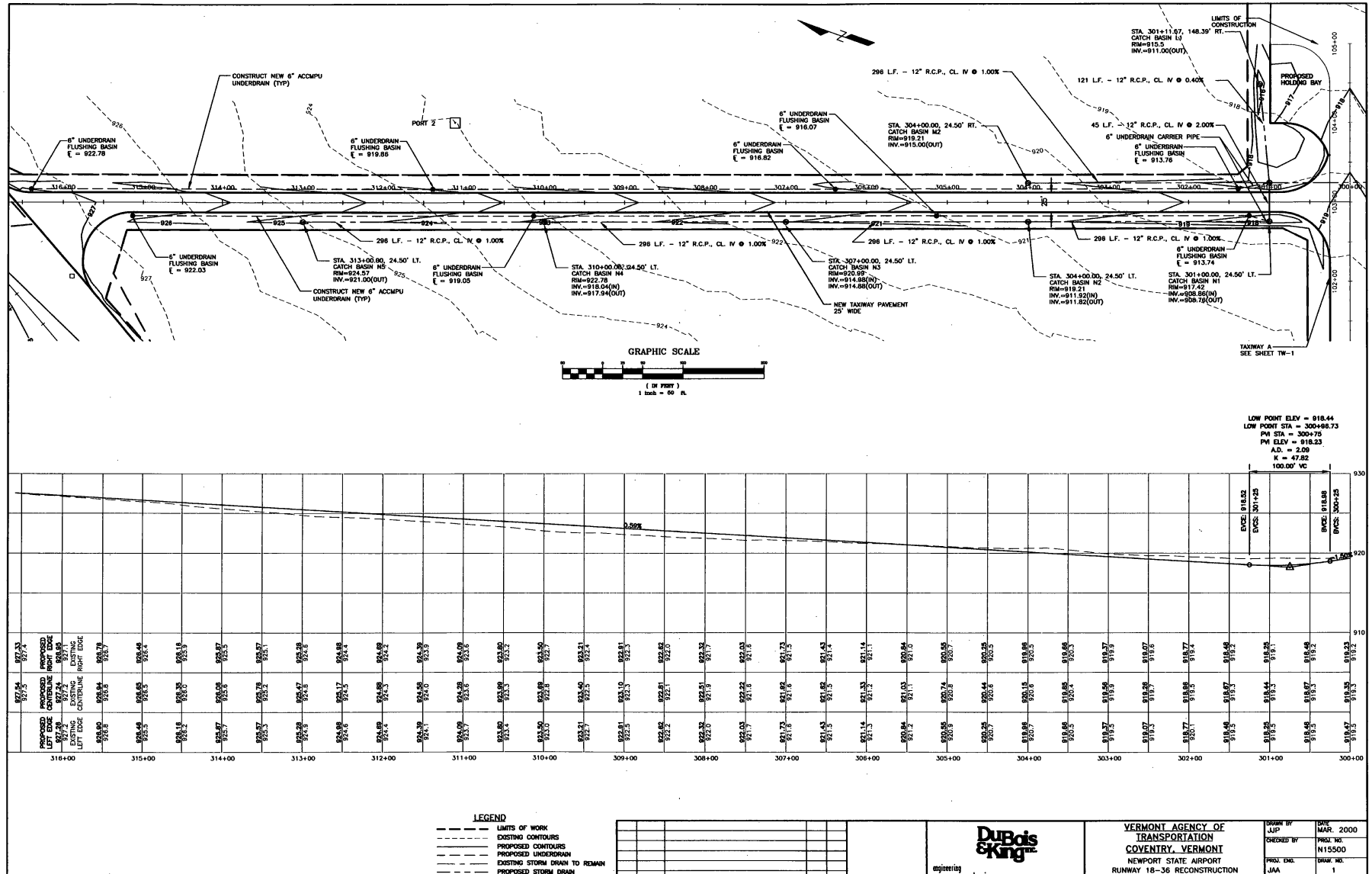

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King INC. engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
TAXIWAY B
PLAN & PROFILE

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET TW-2

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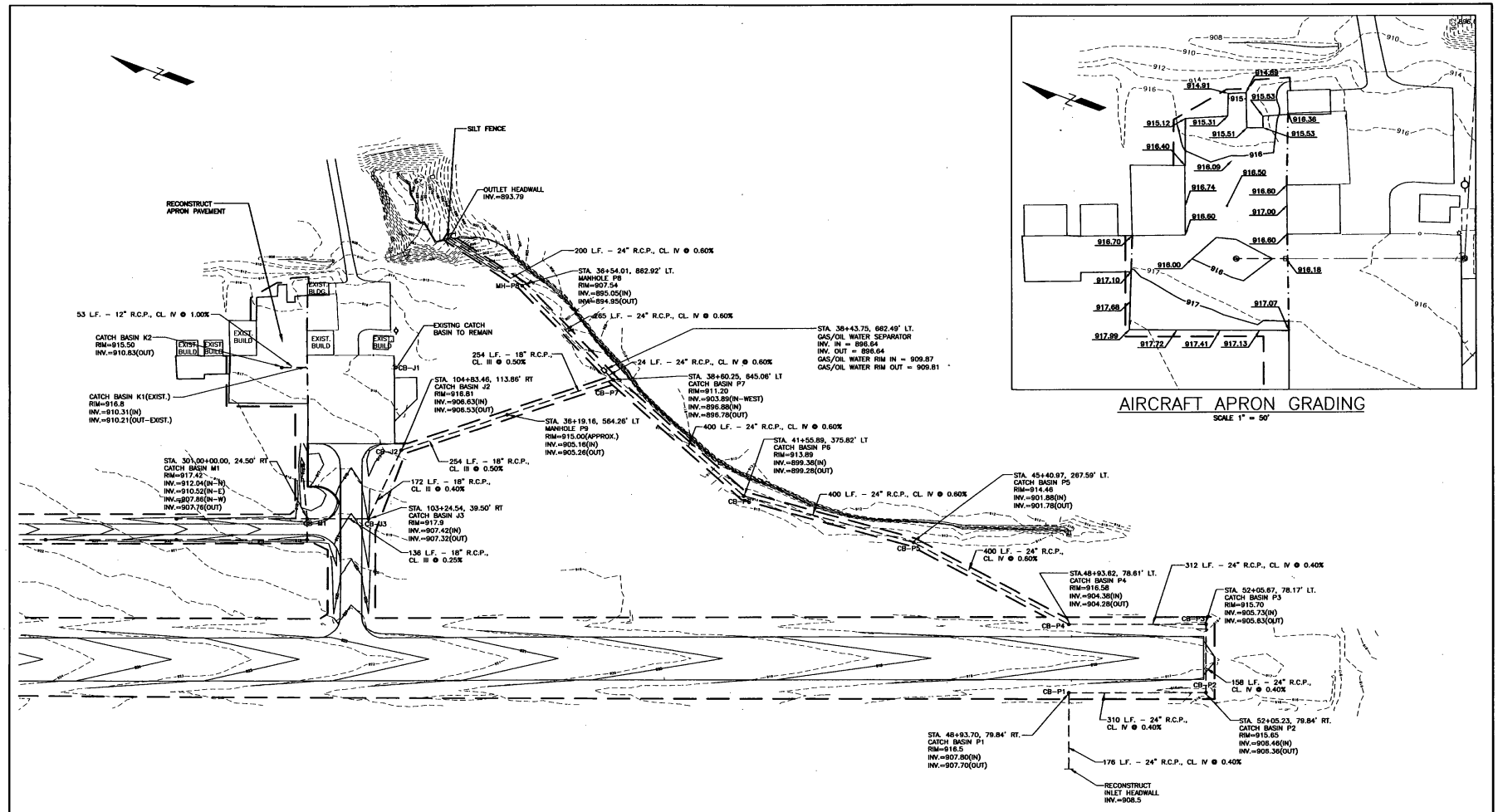

AIRCRAFT APRON GRADING

SCALE 1" = 50'

GRAPHIC SCALE

(IN FEET)

1 inch = 100 ft.

LEGEND

- LIMITS OF WORK
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED UNDERDRAIN
- EXISTING STORM DRAIN TO REMAIN
- PROPOSED STORM DRAIN
- EXISTING CATCH BASINS TO REMAIN
- PROPOSED CATCH BASINS
- FLUSHING BASIN

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.

engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18–36 RECONSTRUCTION
AIRCRAFT APRON GRADING PLAN
RUNWAY OUTLET DRAINAGE

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET AP–1

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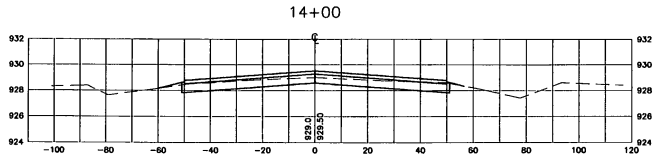
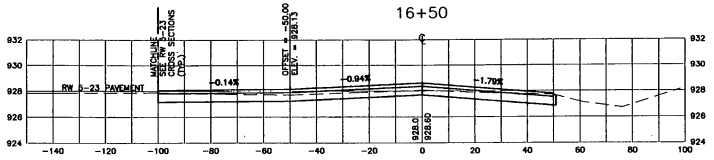
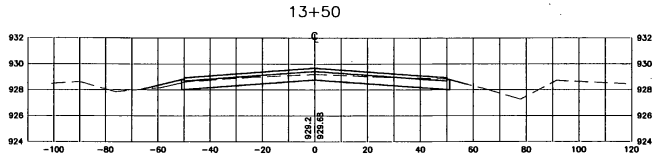
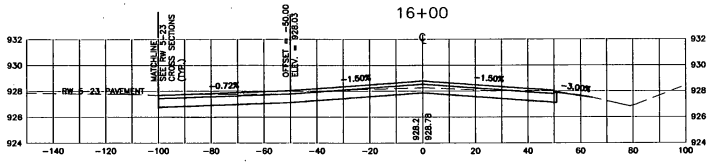
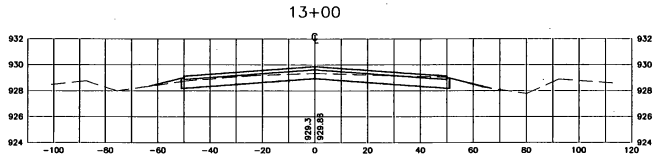
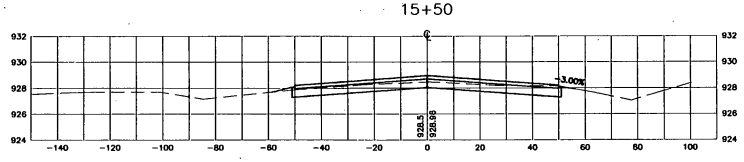


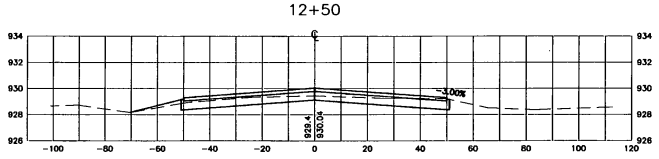


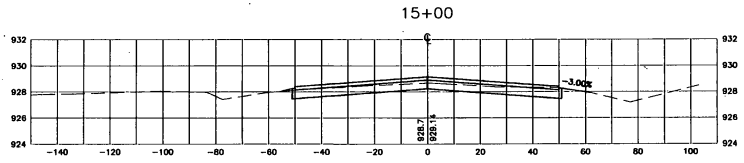


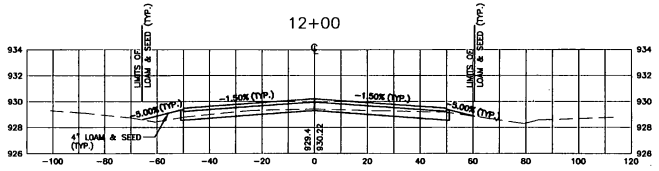


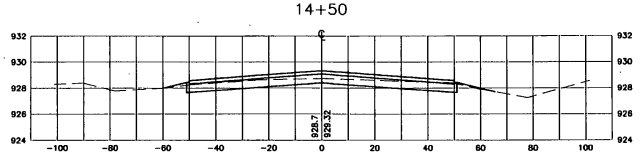




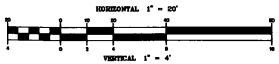








GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 12+00 TO 16+50

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET XS-1

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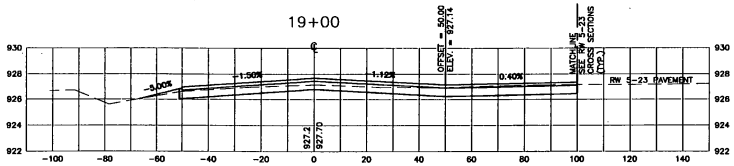

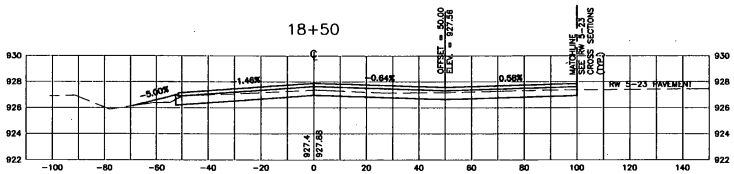

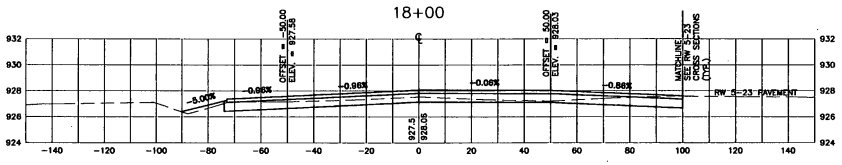

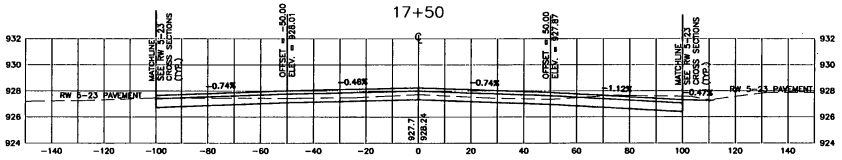

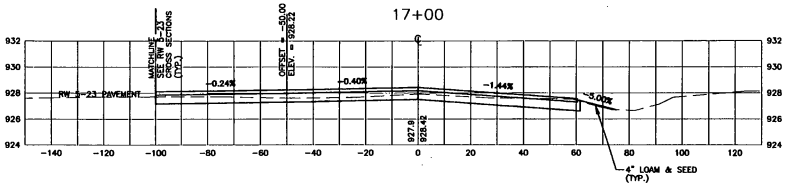

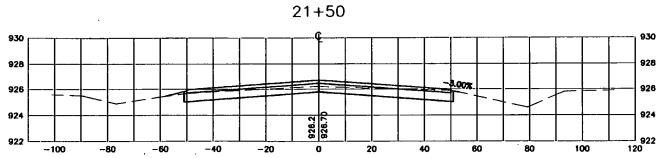

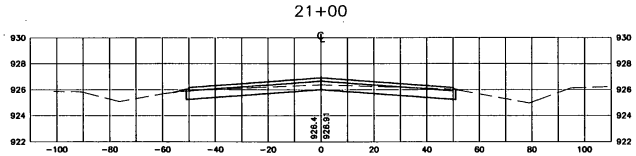

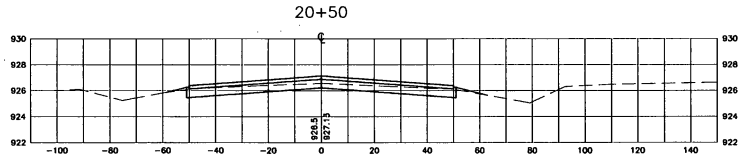

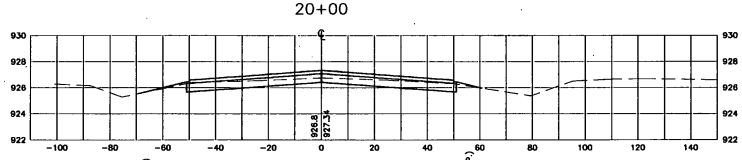

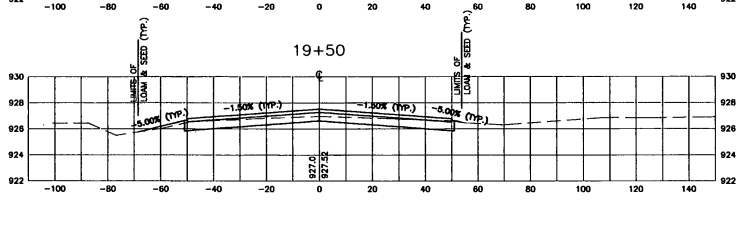

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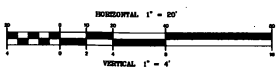

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King, Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 17+00 TO 21+50

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET XS-2

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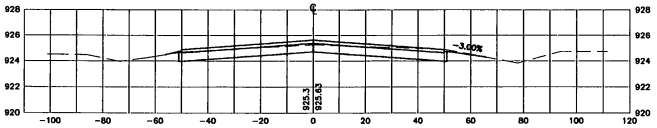
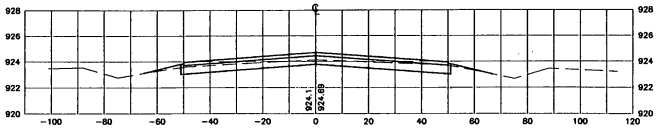
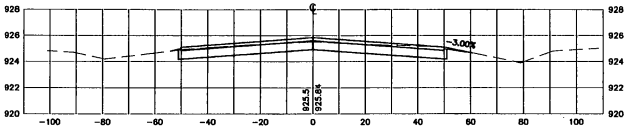
24+00



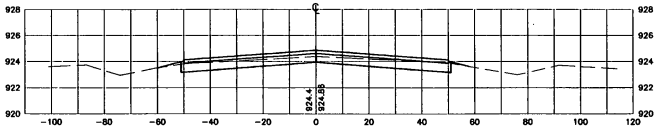
26+50



23+50



26+00



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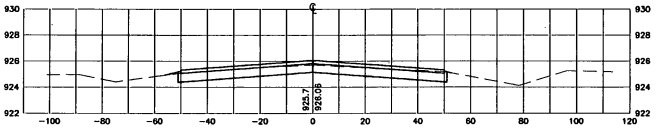
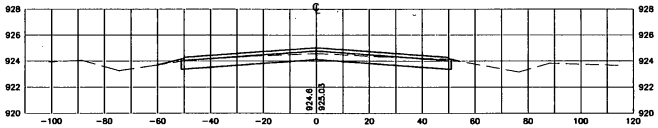
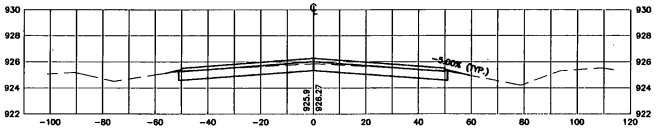


25+50



22+50



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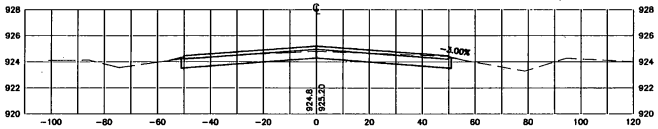

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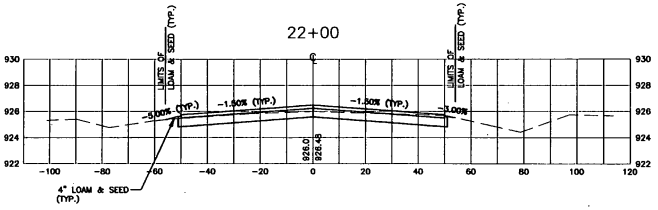

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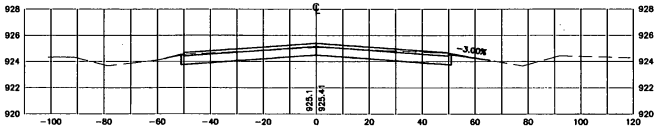

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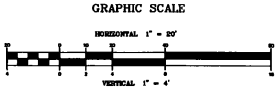

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 22+00 TO 26+50

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET XS-3

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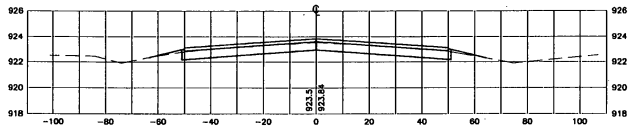
29+00



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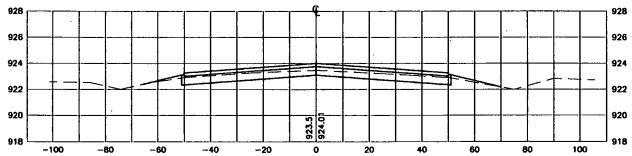

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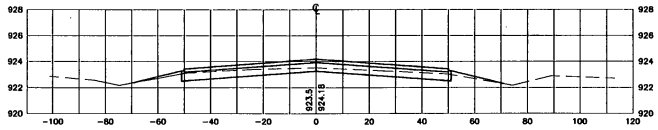
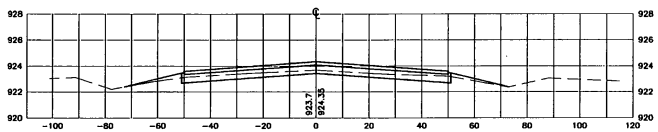
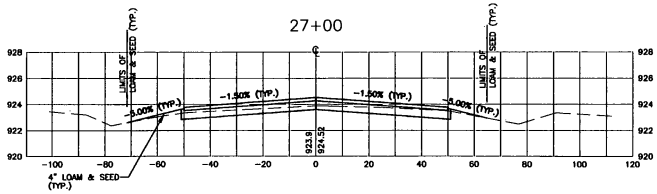


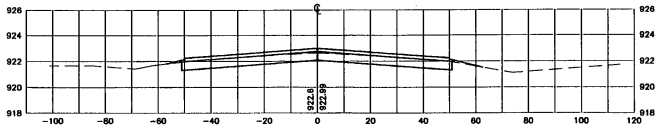
27+50



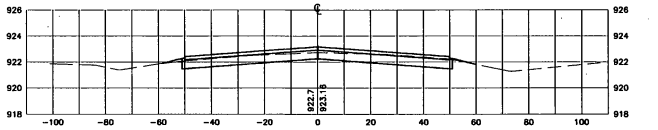
27+00



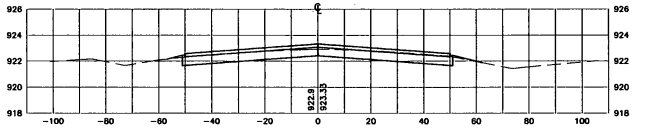
31+50



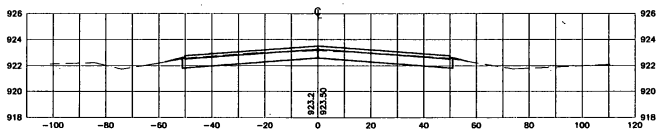
31+00



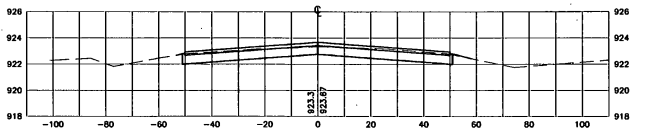
30+50



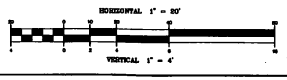
30+00



29+50



GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 27+00 TO 31+50

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET XS-4

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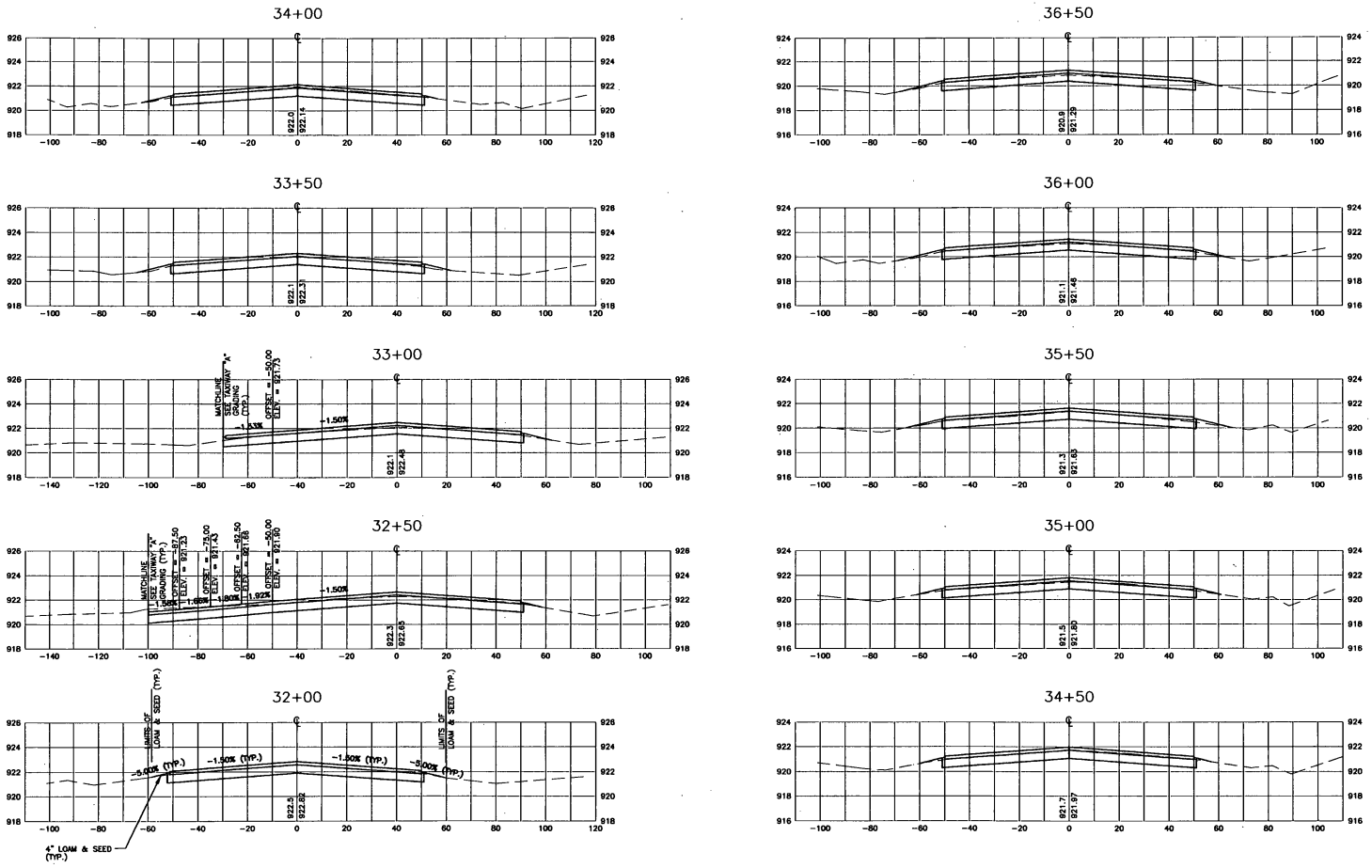

GRAPHIC SCALE

HORIZONTAL 1" = 20'

VERTICAL 1" = 4'

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King INC.

engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 32+00 TO 36+50

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET XS-5

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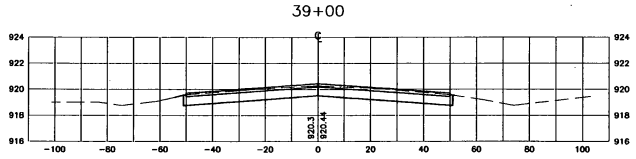
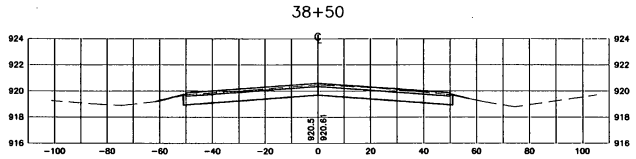
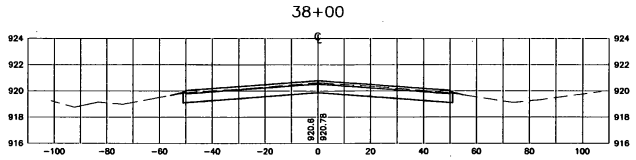
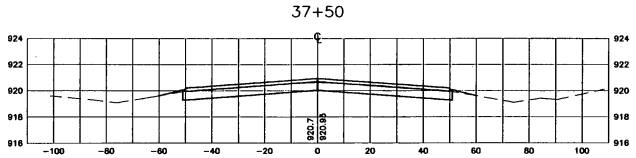
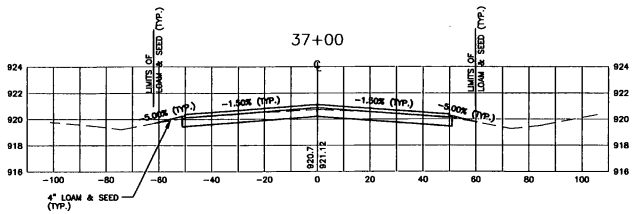
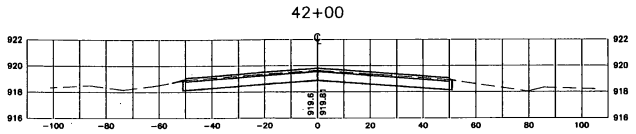


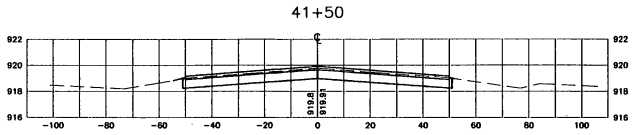


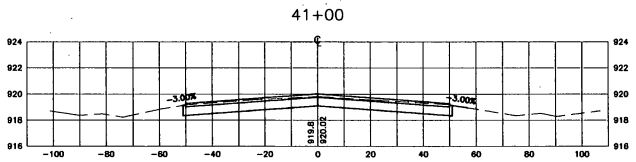


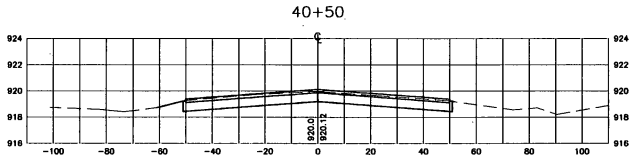


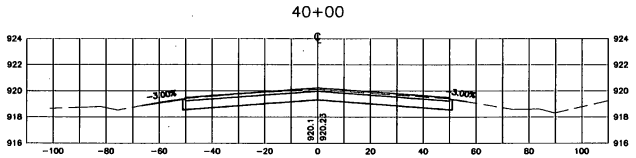


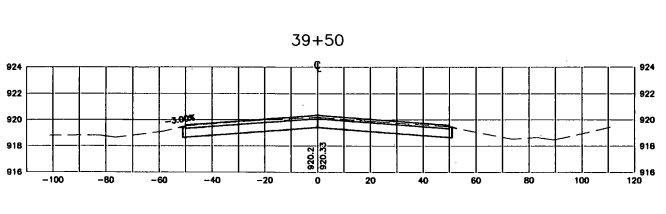




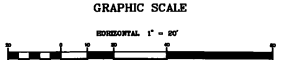








GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 37+00 TO 42+00

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET XS-6

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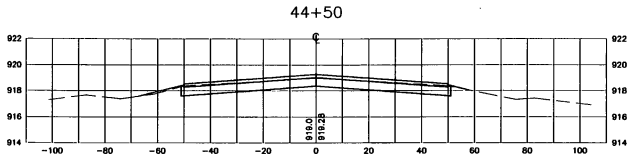
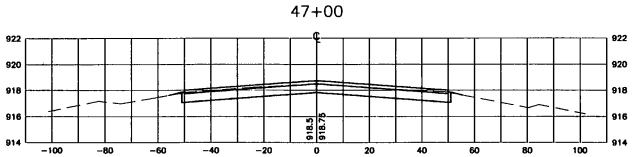
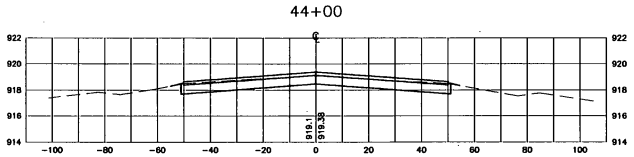
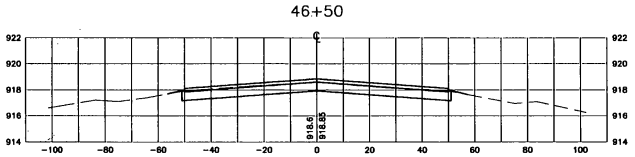
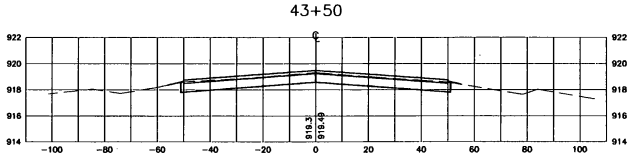
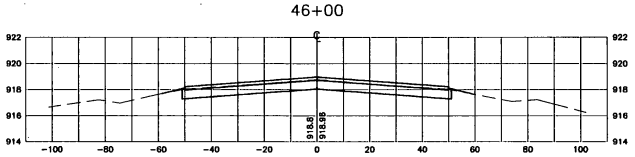


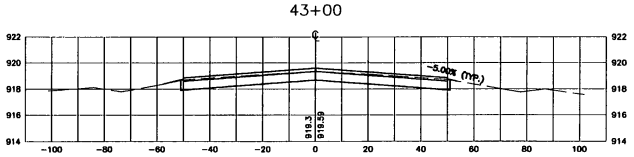


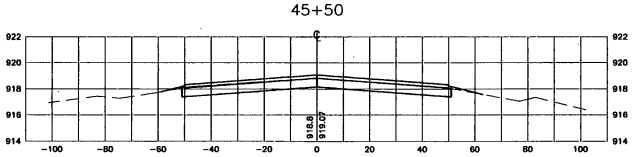


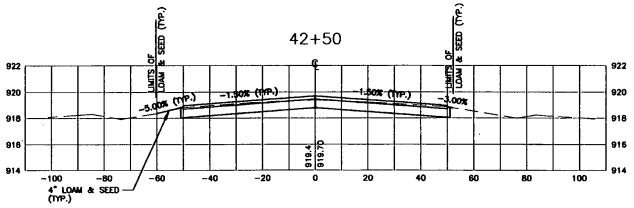


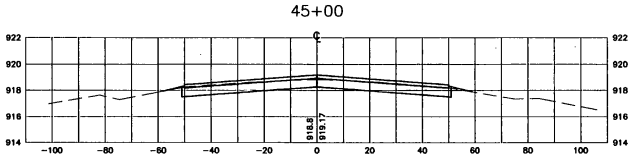




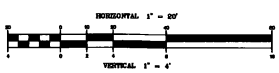








GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18–36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 42+50 TO 47+00

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET XS-7

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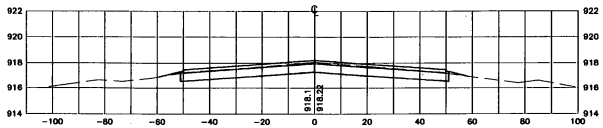
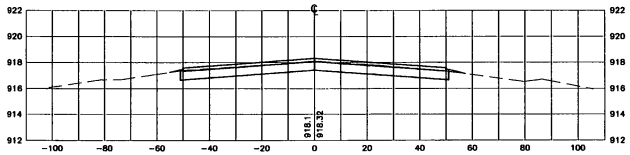
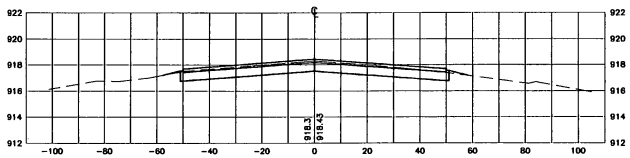
49+50



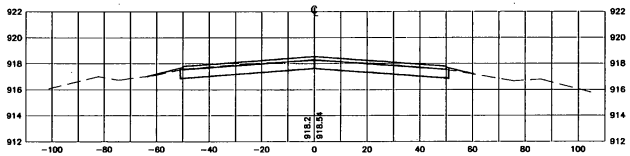
49+00



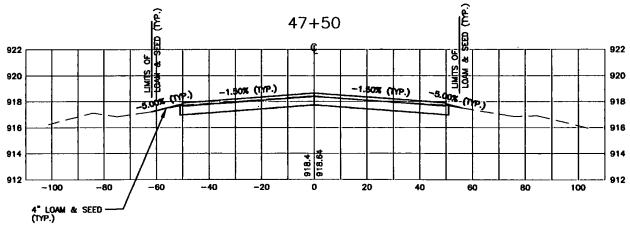
48+50



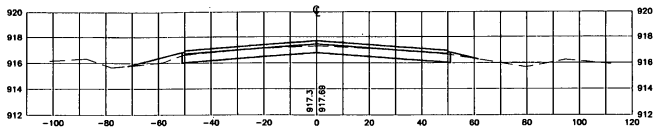
48+00



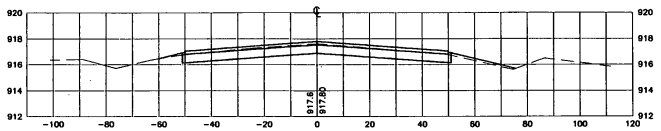
47+50



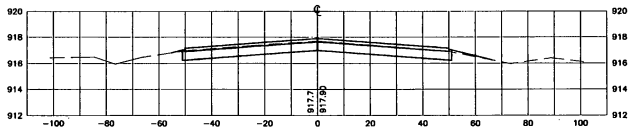
52+00



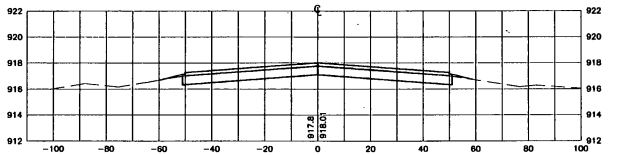
51+50



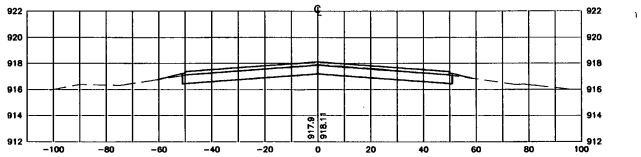
51+00



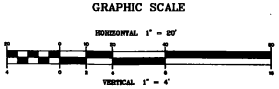
50+50



50+00



GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 18-36
STA. 47+50 TO 52+00

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET XS-8

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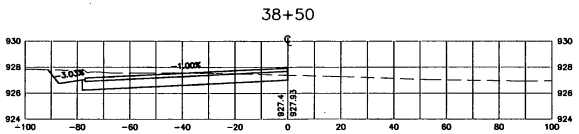
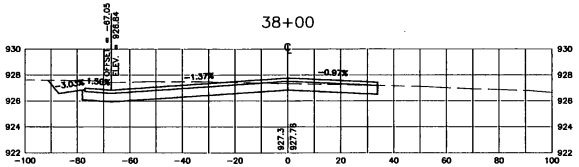
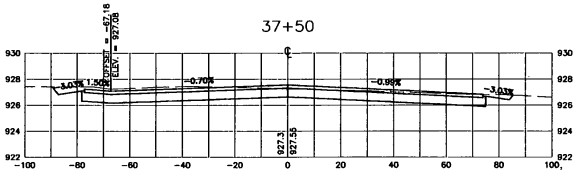
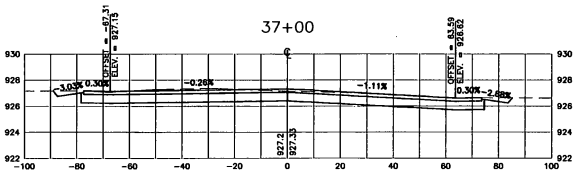
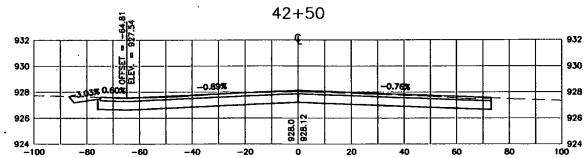
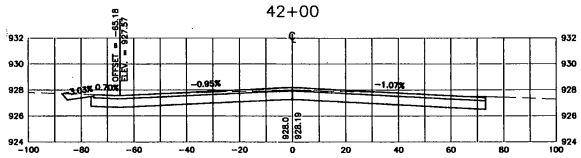


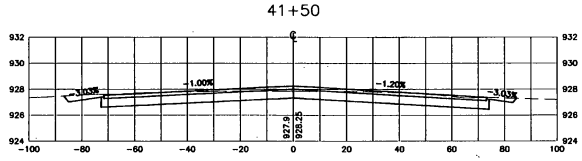


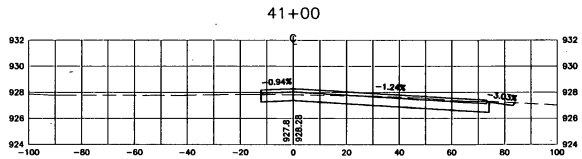




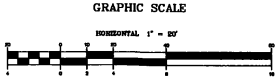








GRAPHIC SCALE



NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

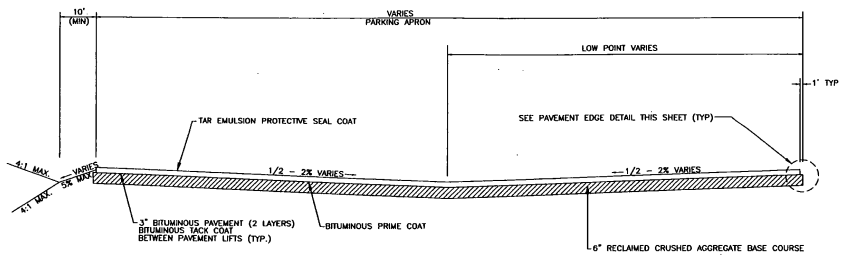
DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
CROSS SECTIONS RW 5-23
STA. 37+00 TO 38+50 & 41+00 TO 42+50

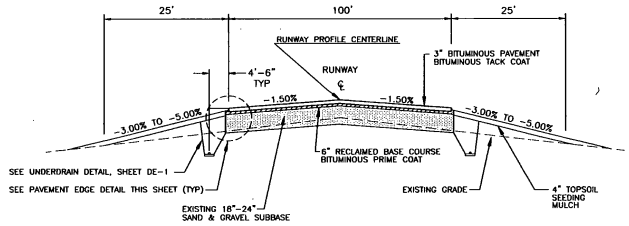
DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET XS-9

I:\N15500F2\dwg\C15500F20016.dwg Fri Feb 02 11:38:22 2001



APRON TYPICAL SECTION
NOT TO SCALE



RUNWAY TYPICAL SECTION
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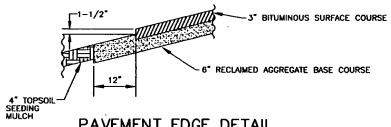
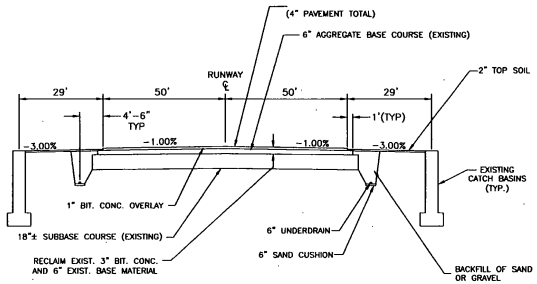
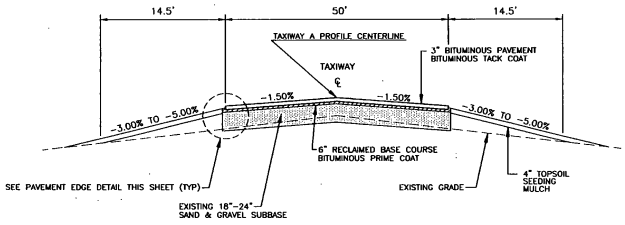


PAVEMENT EDGE DETAIL
NOT TO SCALE

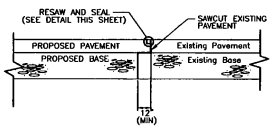


EXISTING TYPICAL SECTION
NOT TO SCALE

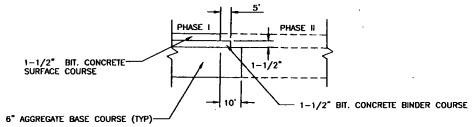
NOTE:
SECTIONS 12+00 TO 28+00 HAS 3" BITUMINOUS CONCRETE PAVEMENT
SECTIONS 28+00 TO 52+00 HAS 4" BITUMINOUS CONCRETE PAVEMENT



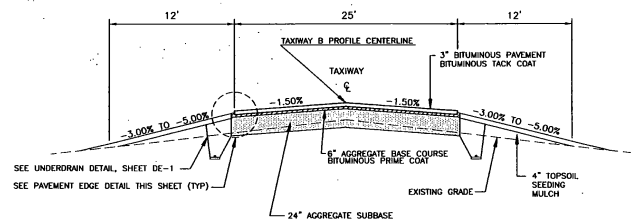
TAXIWAY A TYPICAL SECTION
NOT TO SCALE



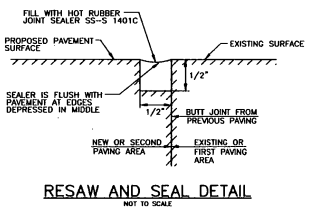
SAWCUT JOINT DETAIL
NOT TO SCALE



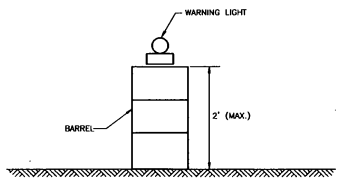
RUNWAY PHASE PAVEMENT MATCH
NOT TO SCALE



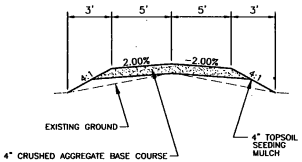
TAXIWAY B TYPICAL SECTION
NOT TO SCALE



RESAW AND SEAL DETAIL
NOT TO SCALE



LIGHTED BARRICADES
NOT TO SCALE



TYPICAL SECTION GRAVEL SERVICE ROAD
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
TYPICAL SECTION & PAVING DETAILS

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1
SHEET TS-1	

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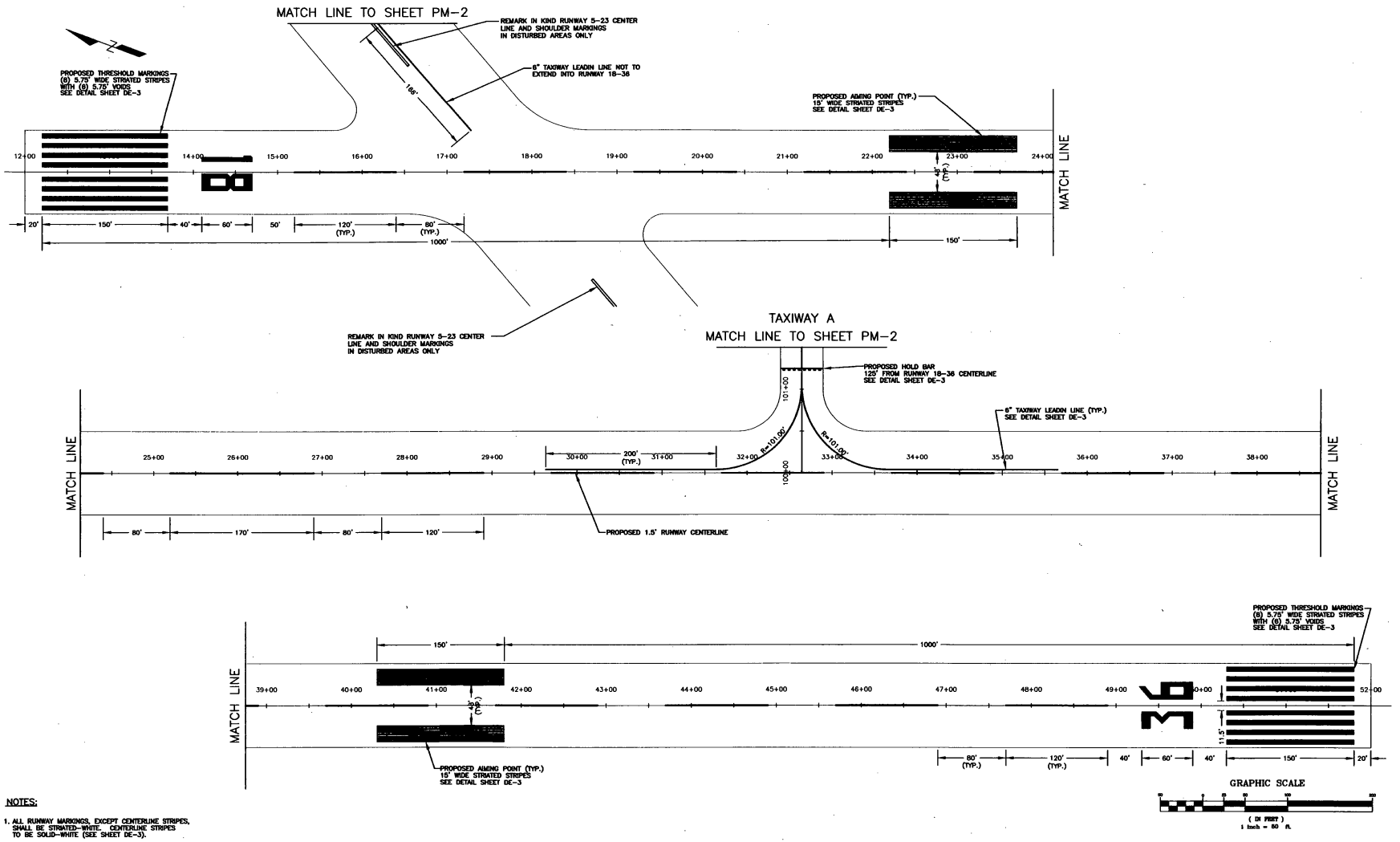

NOTES:

1. ALL RUNWAY MARKINGS, EXCEPT CENTERLINE STRIPES, SHALL BE STRIATED-WHITE. CENTERLINE STRIPES TO BE SOLID-WHITE (SEE SHEET DE-3).
2. ALL TAXIWAY MARKINGS AND STRIPES SHALL BE SOLID-YELLOW, INCLUDING THOSE PORTIONS WHICH ENTER THE RUNWAY.
3. PAINT SHALL NOT BE APPLIED UNTIL THE LAYOUT AND SURFACE CONDITIONS OF THE PAVEMENT IS APPROVED BY THE ENGINEER.

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
PAVEMENT MARKING DETAILS
RUNWAY 18-36

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET PM-1

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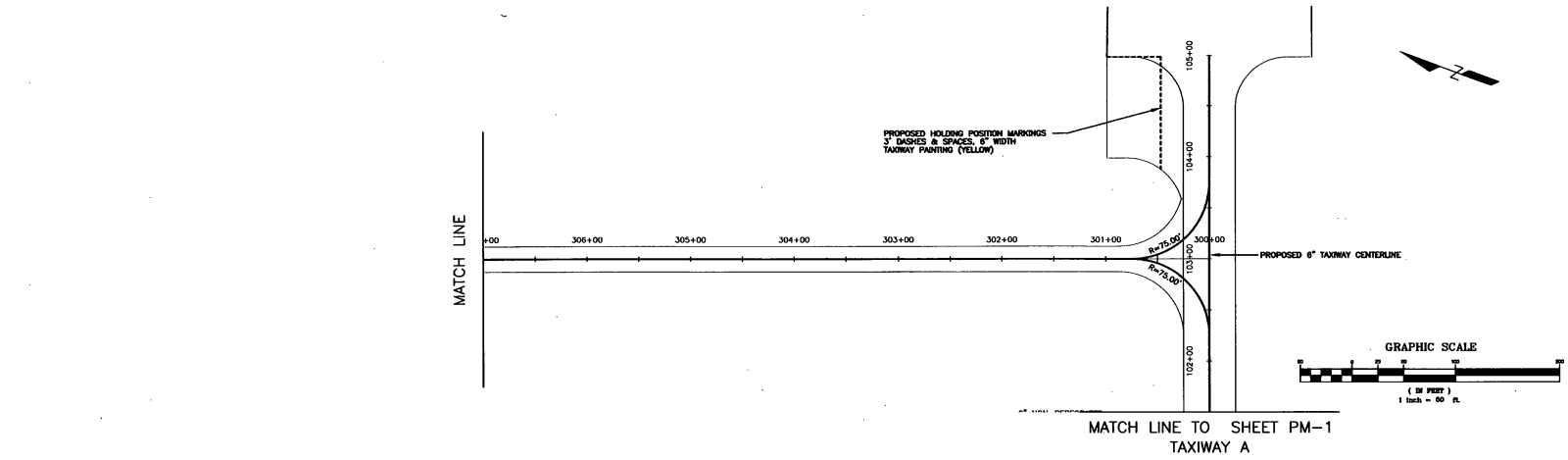

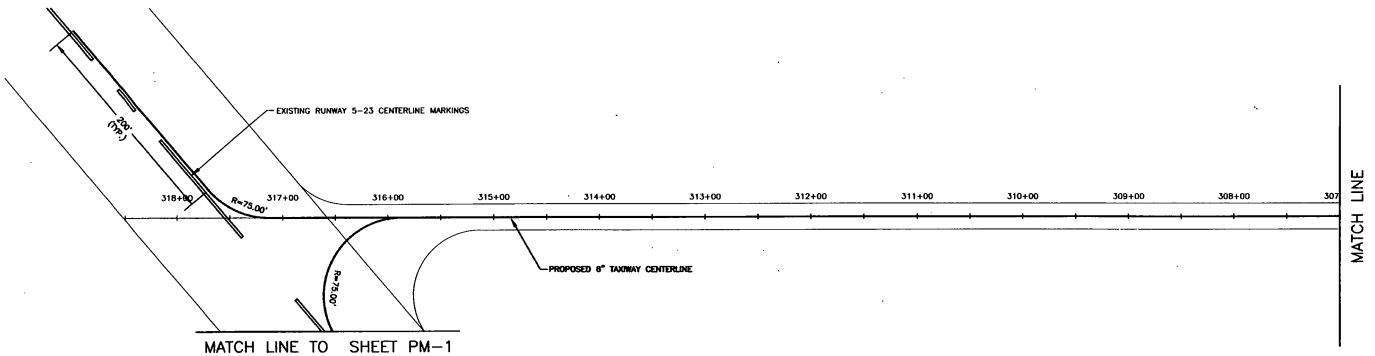

NOTES:

1. ALL RUNWAY MARKINGS, EXCEPT CENTERLINE STRIPES, SHALL BE STRIATED-WHITE. CENTERLINE STRIPES TO BE SOLID-WHITE (SEE SHEET DE-3).
2. ALL TAXIWAY MARKINGS AND STRIPES SHALL BE SOLID-YELLOW, INCLUDING THOSE PORTIONS WHICH ENTER THE RUNWAY.
3. PAINT SHALL NOT BE APPLIED UNTIL THE LAYOUT AND SURFACE CONDITIONS OF THE PAVEMENT IS APPROVED BY THE ENGINEER.

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
PAVEMENT MARKING DETAILS
TAXIWAY & HOLDING BAY

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET PM-2

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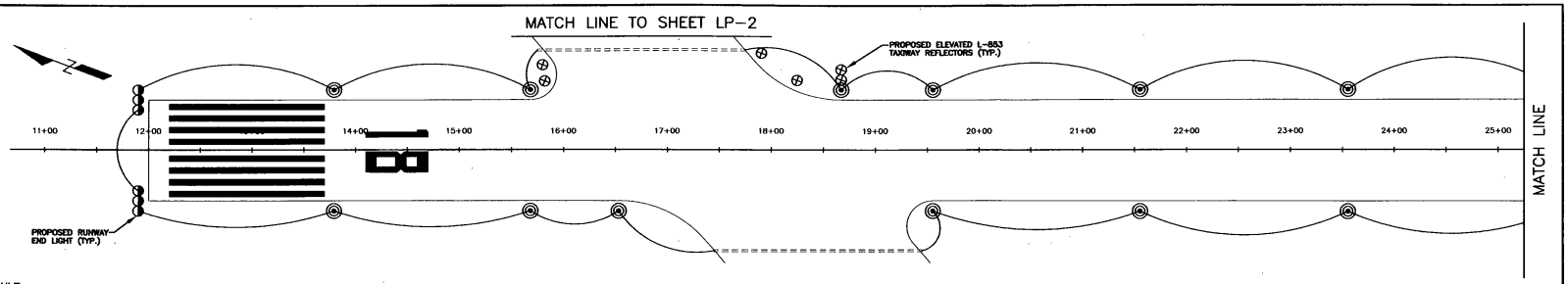


RUNWAY LIGHT SCHEDULE

STA. 13+79.13 RT. 60.00	STA. 33+39.21 RT. 60.00
STA. 13+79.13 LT. 60.00	STA. 33+39.21 LT. 60.00
STA. 15+88.28 RT. 60.00	STA. 34+74.18 RT. 60.00
STA. 15+88.28 LT. 60.00	STA. 34+74.18 LT. 60.00
STA. 16+53.27 RT. 60.00	STA. 36+10.00 RT. 60.00
STA. 18+67.14 LT. 60.00	STA. 36+10.00 LT. 60.00
STA. 19+55.35 RT. 60.00	STA. 38+10.00 RT. 60.00
STA. 19+55.35 LT. 60.00	STA. 38+10.00 LT. 60.00
STA. 21+55.35 RT. 60.00	STA. 40+10.00 RT. 60.00
STA. 21+55.35 LT. 60.00	STA. 40+10.00 LT. 60.00
STA. 23+55.35 RT. 60.00	STA. 42+10.00 RT. 60.00
STA. 23+55.35 LT. 60.00	STA. 42+10.00 LT. 60.00
STA. 25+55.35 RT. 60.00	STA. 44+10.00 RT. 60.00
STA. 25+55.35 LT. 60.00	STA. 44+10.00 LT. 60.00
STA. 27+55.35 RT. 60.00	STA. 48+10.00 RT. 60.00
STA. 27+55.35 LT. 60.00	STA. 48+10.00 LT. 60.00
STA. 29+00.27 RT. 60.00	STA. 48+10.00 RT. 60.00
STA. 29+00.27 LT. 60.00	STA. 48+10.00 LT. 60.00
STA. 30+45.18 RT. 60.00	STA. 50+10.00 RT. 60.00
STA. 30+45.18 LT. 60.00	STA. 50+10.00 LT. 60.00
STA. 31+89.21 RT. 60.00	
STA. 31+89.21 LT. 60.00	

* ALL STATIONS & OFFSETS REFER TO THE RUNWAY 18-36 BASELINE

RUNWAY END LIGHT SCHEDULE

STA. 11+90.00 RT. 60.00	STA. 52+10.00 RT. 60.00
STA. 11+90.00 RT. 50.00	STA. 52+10.00 RT. 50.00
STA. 11+90.00 RT. 40.00	STA. 52+10.00 RT. 40.00
STA. 11+90.00 LT. 40.00	STA. 52+10.00 RT. 30.00
STA. 11+90.00 LT. 50.00	STA. 52+10.00 LT. 30.00
STA. 11+90.00 LT. 60.00	STA. 52+10.00 LT. 40.00
	STA. 52+10.00 LT. 50.00
	STA. 52+10.00 LT. 60.00

* ALL STATIONS & OFFSETS REFER TO THE RUNWAY 18-36 BASELINE

RUNWAY END IDENTIFIER LIGHTS SCHEDULE

STA. 52+10.00 RT. 90.00 STA. 52+10.00 LT. 90.00

* ALL STATIONS & OFFSETS REFER TO THE 50' TAXIWAY BASELINE

TAXIWAY LIGHT SCHEDULE

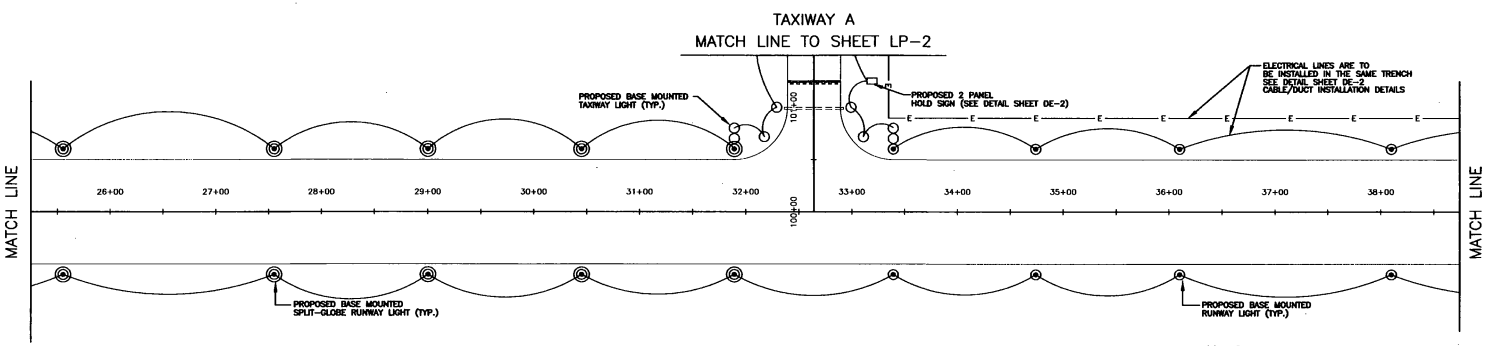
STA. 100+70.00 LT. 75.00	STA. 100+70.00 RT. 75.00
STA. 100+80.00 LT. 75.00	STA. 100+80.00 RT. 75.00
STA. 100+71.72 LT. 46.72	STA. 100+71.72 RT. 46.72
STA. 101+00.00 LT. 35.00	STA. 101+00.00 RT. 35.00

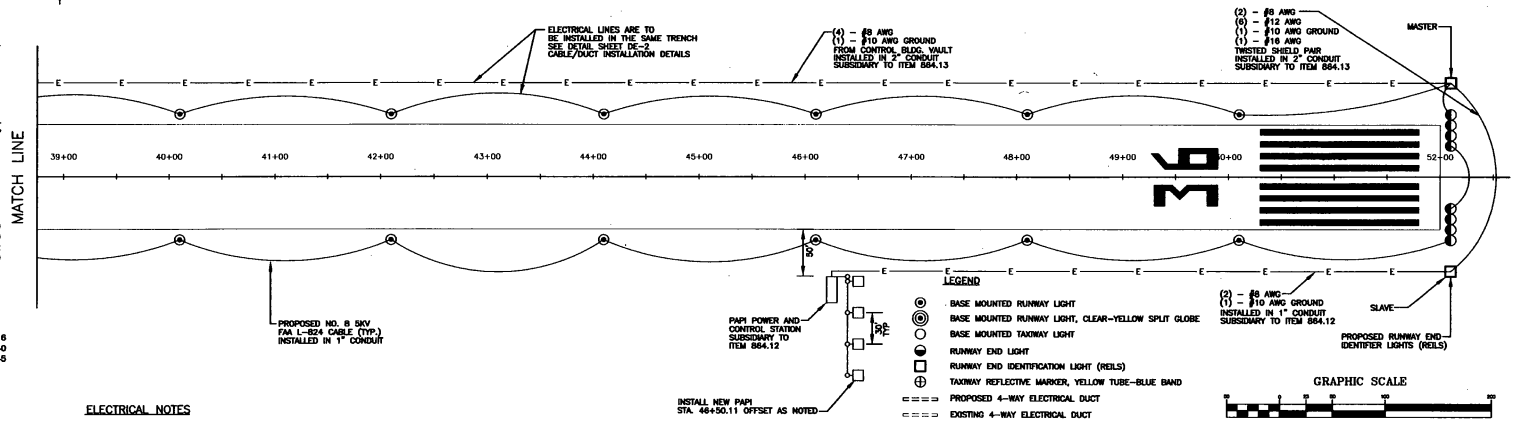
* ALL STATIONS & OFFSETS REFER TO THE 50' TAXIWAY BASELINE

TAXIWAY REFLECTOR SCHEDULE

STA. 313+97.07 LT. 230.02	STA. 314+73.79 LT. 204.16
STA. 313+97.07 LT. 220.02	STA. 316+82.38 LT. 231.40
STA. 314+39.41 LT. 230.62	STA. 316+84.40 LT. 215.45

* ALL STATIONS & OFFSETS REFER TO THE 25' TAXIWAY BASELINE





LEGEND

- BASE MOUNTED RUNWAY LIGHT
- BASE MOUNTED RUNWAY LIGHT, CLEAR-YELLOW SPLIT GLOBE
- BASE MOUNTED TAXIWAY LIGHT
- RUNWAY END LIGHT
- RUNWAY END IDENTIFICATION LIGHT (REILS)
- TAXIWAY REFLECTIVE MARKER, YELLOW TUBE-BLUE BAND
- PROPOSED 4-WAY ELECTRICAL DUCT
- EXISTING 4-WAY ELECTRICAL DUCT
- TAXIWAY GUIDANCE/HOLD SIGN

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

ELECTRICAL NOTES

1. NO. 8 BARE COPPER COUNTERPOISE WIRE TO BE INSTALLED OUTSIDE OF DUCTS.
2. ALL ELECTRICAL CABLES ARE TO BE NO. 8 5KV, FAA L-824, TYPE C UNLESS OTHERWISE SHOWN. SEE SPECIFICATION L-108.
3. TAXIWAY LIGHTS AND RUNWAY LIGHTS ARE TO BE INSTALLED 10' BACK FROM EDGE OF PAVEMENT. CABLE IS TO BE INSTALLED IN DUCT ALSO 10' BACK FROM EDGE OF PAVEMENTS.
4. HOLD SIGNS ARE TO BE INSTALLED 20' OFF THE TAXIWAY EDGE OF PAVEMENT. FACE OF THE SIGN IS TO BE PERPENDICULAR TO THE TAXIWAY CENTERLINE, IN LINE WITH HOLD BAR.
5. EXISTING DUCTS ARE SHOWN IN THE APPROXIMATE LOCATIONS. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION.
6. ALL CABLE CONNECTIONS ARE TO FOLLOW FAA L-823 REQUIREMENTS, AND SHALL BE MADE AT THE NEAREST LIGHT OR SIGN.
7. SPLIT GLOBE LENSES ARE TO BE CLEAR YELLOW COLOR YELLOW TO FACE RUNWAY 36 THRESHOLD CLEAR TO FACE RUNWAY 18 THRESHOLD

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King, Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
LIGHTING PLAN
RUNWAY 18-36

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1
SHEET LP-1	

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TAXIWAY LIGHT SCHEDULE

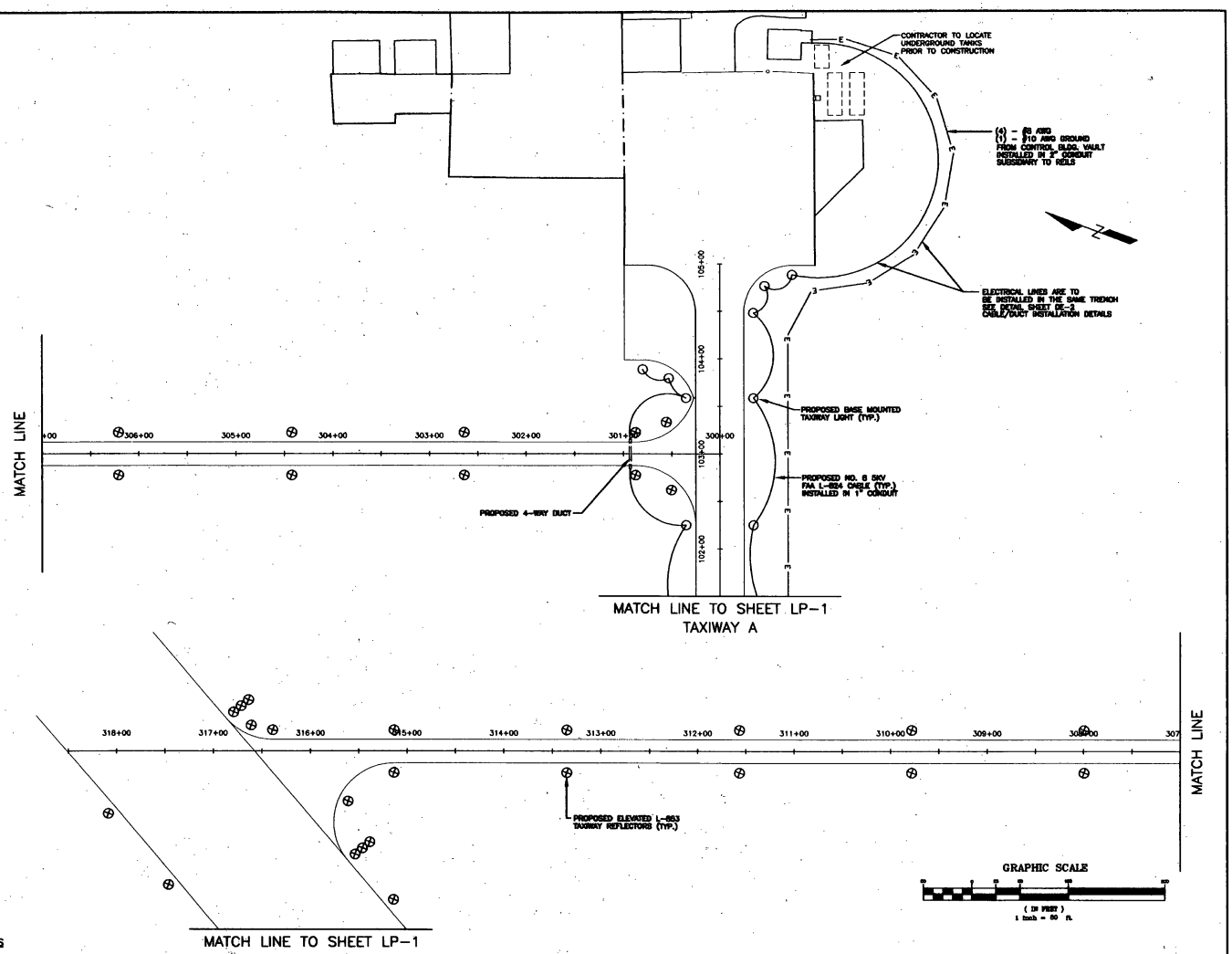
STA. 102+25.04 LT. 35.00	STA. 102+25.04 RT. 35.00
STA. 103+66.69 LT. 35.00	STA. 103+66.69 RT. 35.00
STA. 103+79.68 LT. 52.91	STA. 104+66.40 RT. 35.00
STA. 103+66.76 LT. 60.00	STA. 104+76.68 RT. 46.72
	STA. 104+66.40 RT. 76.00

* ALL STATIONS & OFFSETS REFER TO THE 25' TAXIWAY BASELINE

TAXIWAY REFLECTOR SCHEDULE

STA. 300+50.38 LT. 37.68	STA. 313+34.84 LT. 22.50
STA. 300+66.53 RT. 33.66	STA. 313+34.84 RT. 22.50
STA. 300+67.50 LT. 22.50	STA. 315+13.34 LT. 22.50
STA. 300+67.50 RT. 22.50	STA. 315+13.34 RT. 22.50
STA. 302+63.84 LT. 22.50	STA. 315+13.67 LT. 136.22
STA. 302+63.84 RT. 22.50	STA. 315+38.23 LT. 96.65
STA. 304+42.34 LT. 22.50	STA. 315+45.95 LT. 102.28
STA. 304+42.34 RT. 22.50	STA. 315+53.62 LT. 108.67
STA. 306+20.84 LT. 22.50	STA. 315+60.81 LT. 53.77
STA. 306+20.84 RT. 22.50	STA. 316+38.76 RT. 22.50
STA. 307+69.34 LT. 22.50	STA. 316+60.89 RT. 27.44
STA. 307+69.34 RT. 22.50	STA. 316+63.69 RT. 84.15
STA. 309+77.84 LT. 22.50	STA. 316+71.36 RT. 47.74
STA. 309+77.84 RT. 22.50	STA. 316+79.03 RT. 41.33
STA. 311+66.34 LT. 22.50	STA. 317+46.17 LT. 140.67
STA. 311+66.34 RT. 22.50	STA. 316+08.38 LT. 65.76

* ALL STATIONS & OFFSETS REFER TO THE 50' TAXIWAY BASELINE



LEGEND

- BASE MOUNTED RUNWAY LIGHT
- BASE MOUNTED RUNWAY LIGHT, CLEAR-YELLOW SPLIT GLOBE
- BASE MOUNTED TAXIWAY LIGHT
- RUNWAY END LIGHT
- RUNWAY END IDENTIFICATION LIGHT (REILS)
- TAXIWAY REFLECTIVE MARKER, YELLOW TUBE--BLUE BAND
- PROPOSED 4-WAY ELECTRICAL DUCT
- EXISTING 4-WAY ELECTRICAL DUCT
- TAXIWAY GUIDANCE/HOLD SIGN

ELECTRICAL NOTES

1. NO. 6 BARE COPPER COUNTERPOISE WIRE TO BE INSTALLED OUTSIDE OF DUCT.
2. ALL ELECTRICAL CABLES ARE TO BE NO. 8 5KV, FAA L-824, TYPE C UNLESS OTHERWISE SHOWN. SEE SPECIFICATION L-108.
3. TAXIWAY LIGHTS AND RUNWAY LIGHTS ARE TO BE INSTALLED 10' BACK FROM EDGE OF PAVEMENT, CABLE IS TO BE INSTALLED IN DUCT ALSO 10' BACK FROM EDGE OF PAVEMENTS.
4. HOLD SIGNS ARE TO BE INSTALLED 20' OFF THE TAXIWAY EDGE OF PAVEMENT. FACE OF THE SIGN IS TO BE PERPENDICULAR TO THE TAXIWAY CENTERLINE, IN LINE WITH HOLD BAR.
5. EXISTING DUCTS ARE SHOWN IN THE APPROXIMATE LOCATIONS. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION.
6. ALL CABLE CONNECTIONS ARE TO FOLLOW FAA L-823 REQUIREMENTS, AND SHALL BE MADE AT THE NEAREST LIGHT OR SIGN.

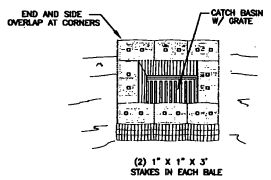
NO.	DATE	REVISIONS	BY	CK'D

DuBois & King, Inc. engineering planning management development

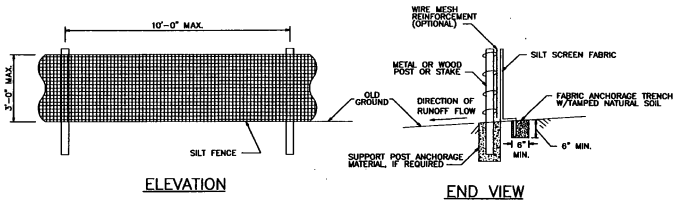
VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
LIGHTING PLAN
EXISTING & TEMPORARY TAXIWAYS

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRWG. NO. 1

SHEET LP-2



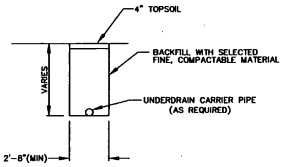
STRAW OR HAY BALE BARRIER
NOT TO SCALE



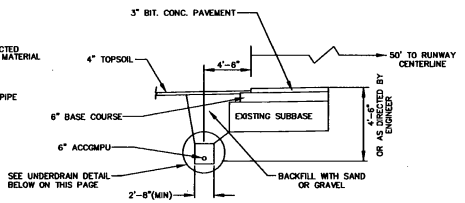
SILT FENCE
NOT TO SCALE

NOTES

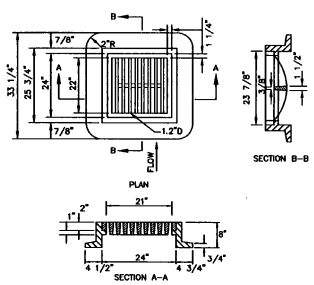
1. SILT FENCE SHALL CONSIST OF AN APPROVED PREFABRICATED SILT FENCE WITH FABRIC ATTACHED TO POSTS AND SHALL BE ASSEMBLED IN THE FIELD ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. WIRE MESH REINFORCEMENT AND/OR CLOSER POST SPACING MAY BE ORDERED BY THE ENGINEER IN AREAS WHERE HIGH RUNOFF VOLUMES ARE ANTICIPATED, OR IN LOW SPOTS WHERE SEDIMENT WILL BE COLLECTED.
2. PRIOR TO BEGINNING EARTHWORK OPERATIONS AT LOCATIONS DIRECTED BY THE ENGINEER, SILT FENCE SHALL BE CONSTRUCTED ALONG THE TOE OF PROPOSED EMBANKMENT SLOPES AT THE LIMITS OF CLEARING.



UNDERDRAIN CARRIER PIPE
NOT TO SCALE



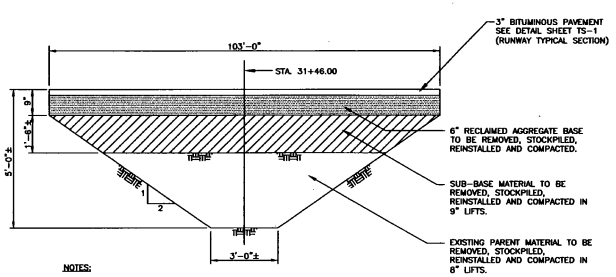
UNDERDRAIN SECTION
NOT TO SCALE



GRATE & FRAME DETAIL
NOT TO SCALE

NOTES:

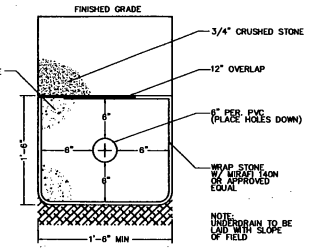
1. GRATES AND FRAMES TO BE CAST IRON, TYPE A AND SHALL MEET VAOT SPECIFICATION 604.10
2. SUPPLIER SHALL CERTIFY THAT THE GRATE/FRAME ARE CAPABLE OF SUPPORTING 28,500 lb. WHEEL LOAD.



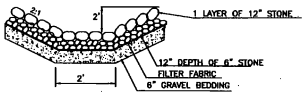
NOTES:

1. PAVEMENT REPAIR TO BE DIRECTED BY ENGINEER
2. ALL EXCAVATION AND BACKFILL PAID FOR UNDER UNCLASSIFIED EXCAVATION.

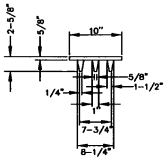
PAVEMENT REPAIR DETAIL
NOT TO SCALE



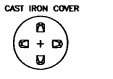
UNDERDRAIN DETAIL
NOT TO SCALE



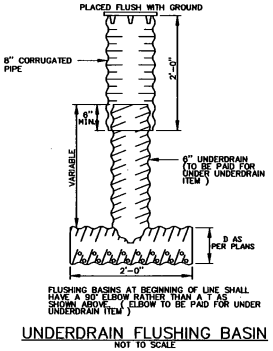
TYPICAL RIPRAP OUTLET
NOT TO SCALE



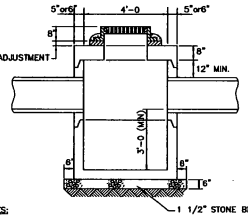
SIDE VIEW



BOTTOM VIEW



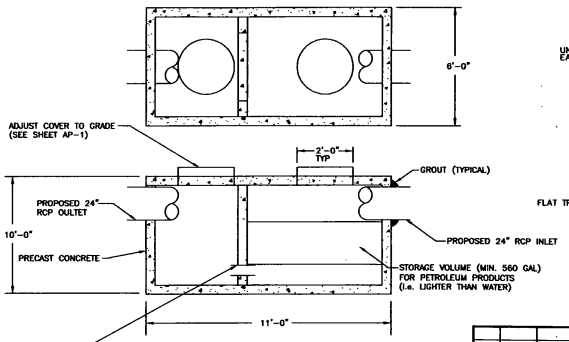
UNDERDRAIN FLUSHING BASIN
NOT TO SCALE



NOTES:

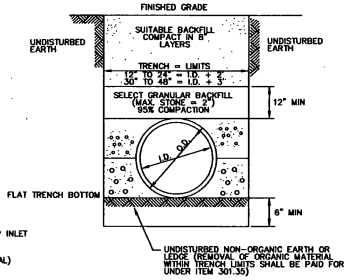
1. PRECAST WALLS AND BASES SHALL MEET VAOT SPECIFICATION 604.10
2. PRECAST REINFORCED CONCRETE TOP, BASE, AND RISER SECTIONS SHALL MEET VAOT SPECIFICATION 604.10
3. SEE GRATE & FRAME DETAIL ABOVE.
4. SEE PLANS FOR PIPE INVERTS.

TYPICAL CATCH BASIN
NOT TO SCALE

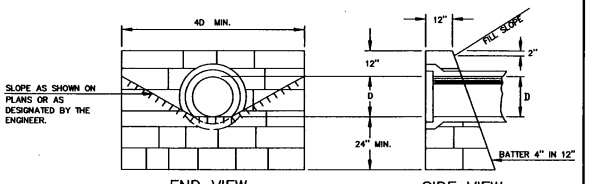


GAS/OIL WATER SEPARATOR
NOT TO SCALE

NOTE: OVERALL DIMENSIONS OF TRAP TO BE 11'-0" L. x 6'-0" W. x 10'-0" H.



TYPICAL TRENCH DETAIL
NOT TO SCALE



END VIEW SIDE VIEW

QUANTITY SCHEDULE FOR CEMENT RUBBLE MASONRY

PIPE DIAMETER	12"	15"	18"	24"	30"	36"	42"	48"	54"	60"
C.R.M. QUANTITY	1.0	1.3	1.8	2.7	3.5	4.9	6.4	8.0	10.0	12.3

C.R.M. QUANTITIES EXCLUDE PIPE DIAMETERS FOR 30" AND OVER.
SAME DEDUCTION MADE FOR CONCRETE PIPE AS IS MADE FOR METAL PIPE.

CEMENT RUBBLE MASONRY STRAIGHT HEADWALL
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CK'D
1	1/18/01	VAOT COMMENTS AND SURVEY ADJUSTMENTS	MDL	SJR

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
DRAINAGE & EROSION CONTROL DETAILS

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

SHEET DE-1

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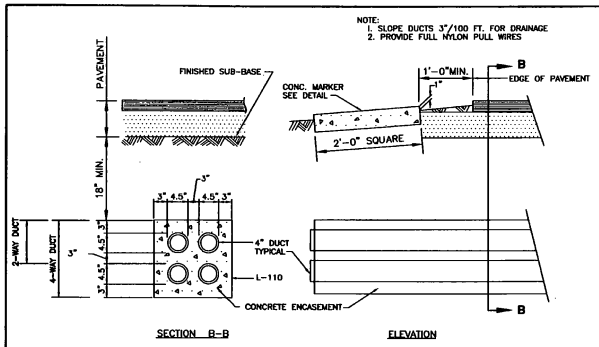
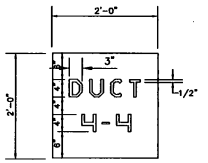


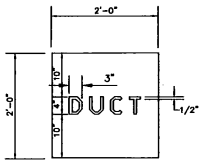
DUCT (4-WAY) AND CONCRETE MARKER DETAILS

NOT TO SCALE



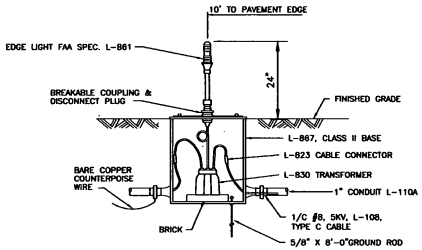
CONCRETE DUCT MARKER

NOT TO SCALE



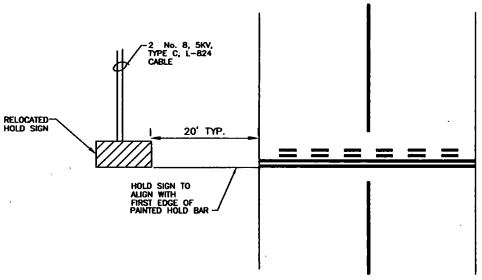
CONCRETE UTILITY DUCT MARKER

NOT TO SCALE



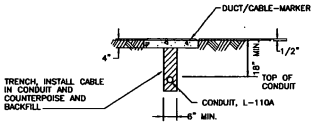
BASE MOUNTED SERIES CIRCUIT

NOT TO SCALE



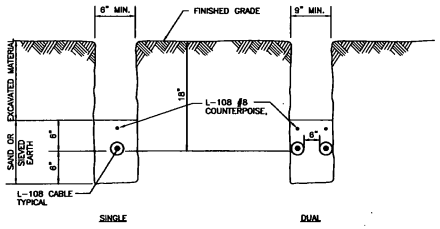
HOLD SIGN LAYOUT DETAIL

NOT TO SCALE



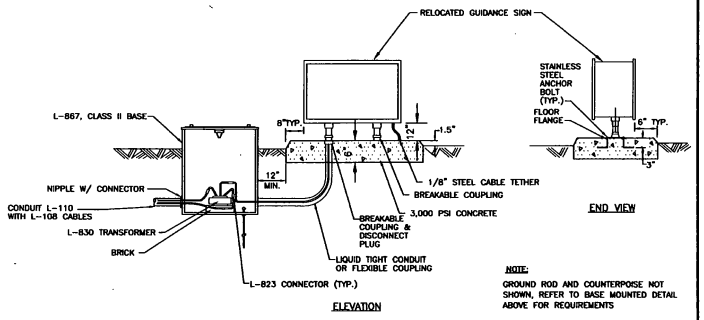
CABLE/DUCT-MARKER DETAIL

NOT TO SCALE



CABLE/DUCT INSTALLATION DETAILS

NOT TO SCALE



GUIDANCE SIGN DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
RUNWAY AND TAXIWAY ELECTRICAL DETAILS

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET DE-2

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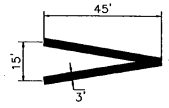
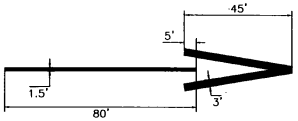
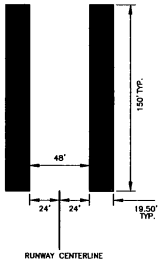


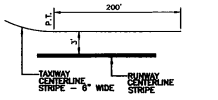
ARROWHEAD DETAIL
NOT TO SCALE



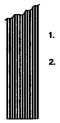
ARROW DETAIL
NOT TO SCALE



AIMING POINT DETAIL
NOT TO SCALE



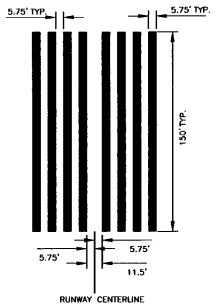
TAXIWAY LEADIN LINE DETAIL
NOT TO SCALE



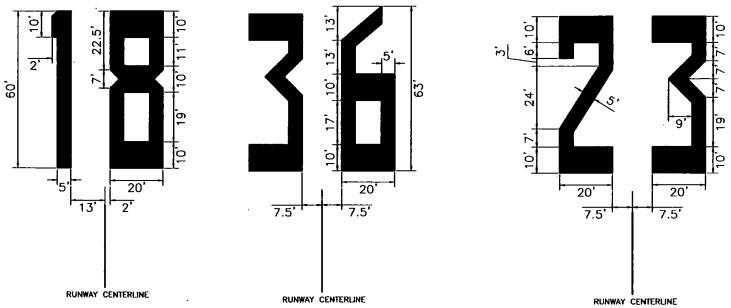
NOTES

1. ALL STRIPES AND SPACES TO BE EQUAL WIDTH.
2. MAXIMUM WIDTH 6 INCHES MINIMUM WIDTH 4 INCHES

TYPICAL STRIATED MARKINGS
NOT TO SCALE



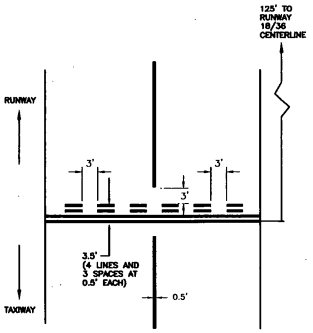
THRESHOLD MARK DETAIL
NOT TO SCALE



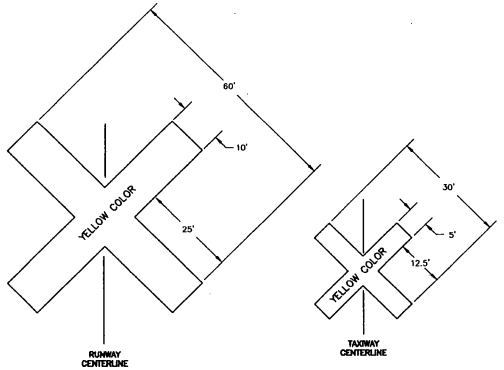
RUNWAY MARKINGS
NOT TO SCALE

NOTES:

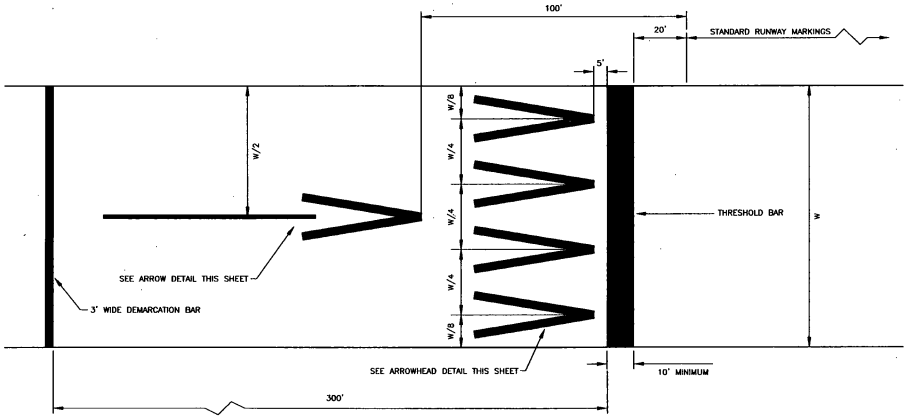
1. ALL RUNWAY MARKINGS ARE WHITE EXCEPT IN THE DISPLACED THRESHOLD AREA.
2. FOR RUNWAY LESS THAN 150' IN WIDTH, THE WIDTH OF THE MARKINGS, SPACES BETWEEN MARKINGS, AND DISTANCE OF MARKINGS FROM THE RUNWAY EDGES ARE CHANGED PROPORTIONALLY.
3. ADJUSTMENTS TO THE LENGTH OF THE CENTERLINE STRIPES AND GAPS, WHERE NECESSARY TO ACCOMMODATE THE RUNWAY LENGTH, ARE MADE NEAR THE RUNWAY MIDPOINT.
4. ALL RUNWAY MARKINGS, EXCEPT CENTERLINE, ARE TO BE STRIATED WITH ALL STRIPES AND SPACES EQUAL IN WIDTH (4" TO 6").
5. PAINT SHALL NOT BE APPLIED UNTIL THE PREPARED SURFACE CONDITION OF THE EXISTING PAVEMENT HAS BEEN APPROVED BY THE ENGINEER.



HOLD BAR DETAIL
NOT TO SCALE



CLOSED RUNWAY AND TAXIWAY MARKINGS
NOT TO SCALE



DISPLACED THRESHOLD MARKINGS

NOTES

1. FOUR (4) 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.

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King INC.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION

RUNWAY MARKING DETAILS

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET DE-3

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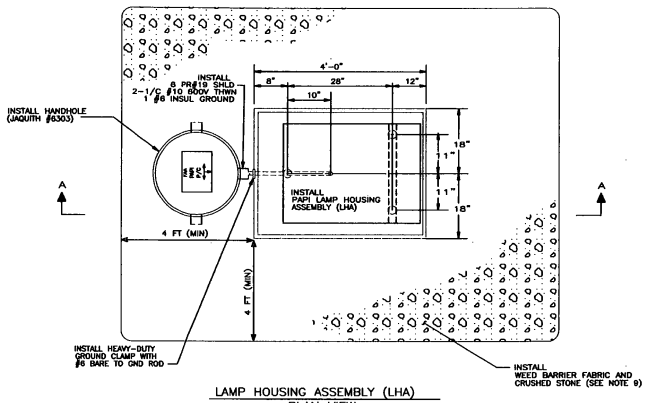
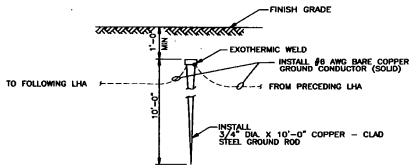
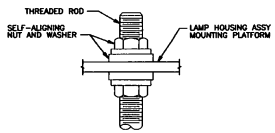


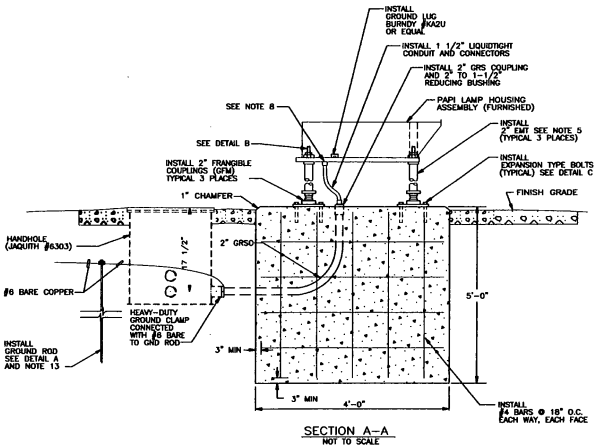
LAMP HOUSING ASSEMBLY (LHA)
PLAN VIEW
NOT TO SCALE



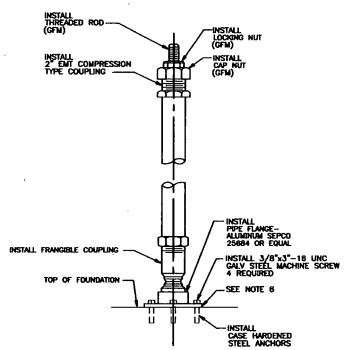
DETAIL A
TYPICAL GROUND ROD INSTALLATION DETAIL
NOT TO SCALE



DETAIL B
LIGHT HOUSING ASSEMBLY MOUNTING DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE



DETAIL C
TYPICAL STRUCTURAL LEG DETAIL
NOT TO SCALE

NOTES

1. FOUNDATION DEPTH SHALL BE 6 FEET (MIN). THE BOTTOM OF ALL FOUNDATION EXCAVATIONS SHALL BE FREE OF WATER AND LOOSE EARTH AND SHALL BE COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS PER AASHTO T-99, PRIOR TO INSTALLING FOUNDATIONS.
2. FORM FOUNDATIONS FULL DEPTH SUCH THAT VERTICAL SURFACES ARE SMOOTH AND RESISTANT TO FROST HEAVES.
3. CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE CURRENT ISSUE OF ACI-318; BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. CONCRETE TO DEVELOP MINIMUM STRENGTH OF 3000 PSI IN 28 DAYS WITH MAXIMUM SLUMP OF 5 INCHES AND MAXIMUM AGGREGATE SIZE OF 3/4 INCH. CONCRETE SHALL BE PROTECTED FROM FREEZING DURING AND FOR 7 DAYS AFTER PLACEMENT.
4. DRILL HOLES AND INSTALL EXPANSION TYPE ANCHOR BOLTS WHEN PAPI UNITS HAVE BEEN ACCURATELY LOCATED AND AFTER CONCRETE HAS HARDENED SUFFICIENTLY.
5. 2" EMT LENGTH SHALL BE SET AS REQUIRED SO THAT THE BEAM CENTERS OF ALL LIGHT UNITS SHALL BE WITHIN +/- 1 INCH OF A HORIZONTAL PLANE. THIS HORIZONTAL PLANE SHALL BE 2'-0" ABOVE THE ELEVATION OF THE RUNWAY CROWN PERPENDICULAR TO THE PAPI UNITS.
6. COAT THE FLANGE SURFACE RESTING ON THE CONCRETE WITH AN ASPHALTIC COMPOUND FOR METAL PROTECTION.
7. WHERE REQUIRED AT PAPI FOUNDATIONS, FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6 INCHES, EACH LAYER SHALL BE THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH AASHTO-T99.
8. FOLD BACK UNUSED SHIELDED PAIRS AND TAPE TO PREVENT WATER INFILTRATION; LEAVE IN THE LHA UNIT.
9. WEED BARRIER COVERED WITH A 4 INCH LAYER OF 3/4" CRUSHED STONE SHALL BE PLACED IN THE AREA EXTENDING 4 FEET FROM EACH SIDE OF EACH LHA, POWER AND CONTROL STATION.
10. A #6 SOLID BARE COPPER GROUND SHALL RUN THROUGH ALL CONDUITS AND SHALL BE ATTACHED TO GROUND BUSHINGS AT EACH CONDUIT END AND SHALL BE ATTACHED TO GROUND LUGS IN EACH LHA.
11. ALL MATERIAL AND EQUIPMENT NOT LISTED UNDER "FURNISHED MATERIAL" SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL MATERIAL AND EQUIPMENT.
12. ALL RIGID CONDUIT FITTINGS, NUTS, BOLTS AND STEEL WORK SHALL BE GALVANIZED, OR STAINLESS STEEL. ALL FITTINGS USED WITH RIGID CONDUIT SHALL BE THREADED TYPE.
13. INSTALL GROUND RODS AT THE END OF ALL CABLE RUNS, EVERY 200' ALONG RUNS OR AS DIRECTED ON THE DRAWING.

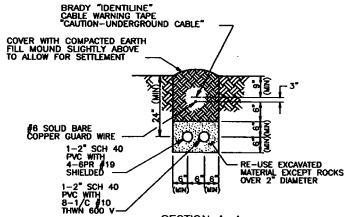
NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.
engineering planning management development

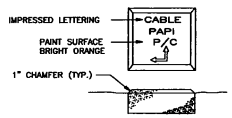
VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
PAPI MOUNTING PLAN
SECTIONS AND FOUNDATION DETAILS

DRAWN BY	DATE
JJP	MAR. 2000
CHECKED BY	PROJ. NO.
	N15500
PROJ. ENG.	DRAW. NO.
JAA	1

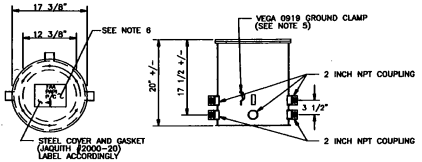
SHEET PP-1



SECTION A-A
TRENCH SECTION
NOT TO SCALE



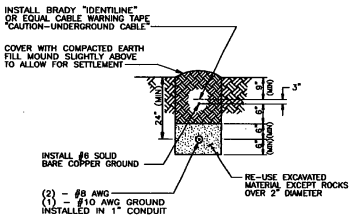
DETAIL A
TYPICAL CONCRETE CABLE MARKER
NOT TO SCALE



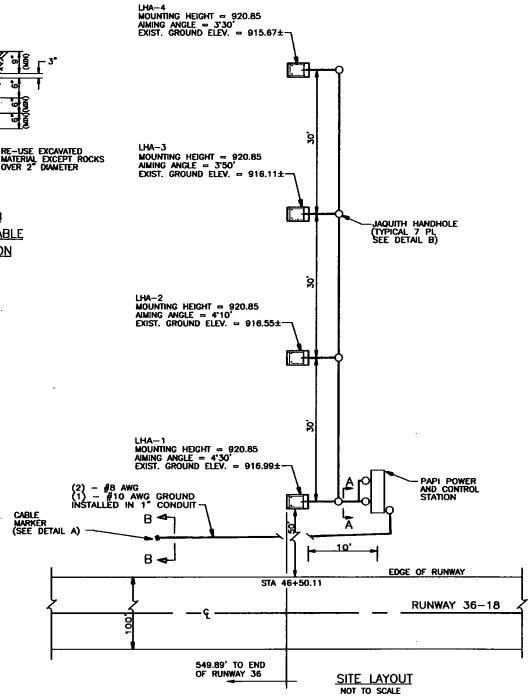
DETAIL B
JAQUITH HANDHOLE
NOT TO SCALE

NOTES:

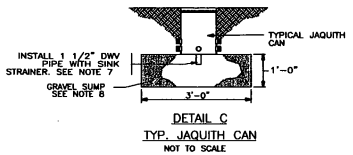
1. ALL GRSC SWEEPS SHALL HAVE GROUND CLAMPS AND BE CONNECTED TO A GROUND ROD VIA #6 SOLID BARE Cu WIRE.
2. CABLE MARKERS SHALL BE PLACED EVERY 200 FEET ALONG TRENCH AND AT ANY CHANGE IN DIRECTION.
3. ALL TRENCHES SHALL BE FILLED IN LAYERS NOT EXCEEDING 6" AND EACH LAYER SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. FILL SHALL BE OF STRUCTURAL NATURE ONLY.
4. ALL INSULATED CABLE SHALL BE PROPERLY AND PERMANENTLY COLOR CODED AT EACH END PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL VERIFY THAT GROUND LUGS HAVE BEEN INSTALLED ON BOTH INTERIOR AND EXTERIOR OF JAQUITH CAN. IF CLAMPS DO NOT EXIST, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION.
6. CONTRACTOR SHALL FURNISH AND INSTALL BRASS IDENTIFICATION PLATES. THESE PLATES SHALL BE 8" X 6" WITH THREE ROWS OF CHARACTERS (2 FOR WORDS, 1 FOR DIRECTION ARROW), AND 1" LETTERING.
7. CONTRACTOR SHALL DRILL 1 1/2" HOLE THROUGH THE BOTTOM OF JAQUITH CAN, AND SPRAY COLD GALV. ON CAN PRIOR TO INSTALLATION.
8. INSTALL A 3'x3'x1', 3/4" CRUSHED STONE SUMP UNDER ALL JAQUITH CANS. THE CRUSHED STONE SHALL BE WRAPPED IN GEOTEXTILE FABRIC.



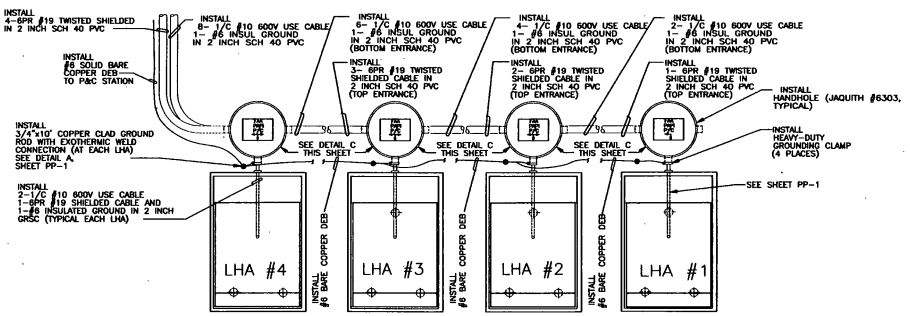
SECTION B-B
LOW VOLTAGE CABLE
TRENCH SECTION
NOT TO SCALE



SITE LAYOUT
NOT TO SCALE



DETAIL C
TYP. JAQUITH CAN
NOT TO SCALE



CABLING AT LAMP HOUSING ASSEMBLY CONFIGURATION
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King, Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
PAPI GENERAL INSTALLATION DETIALS

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1

SHEET PP-2

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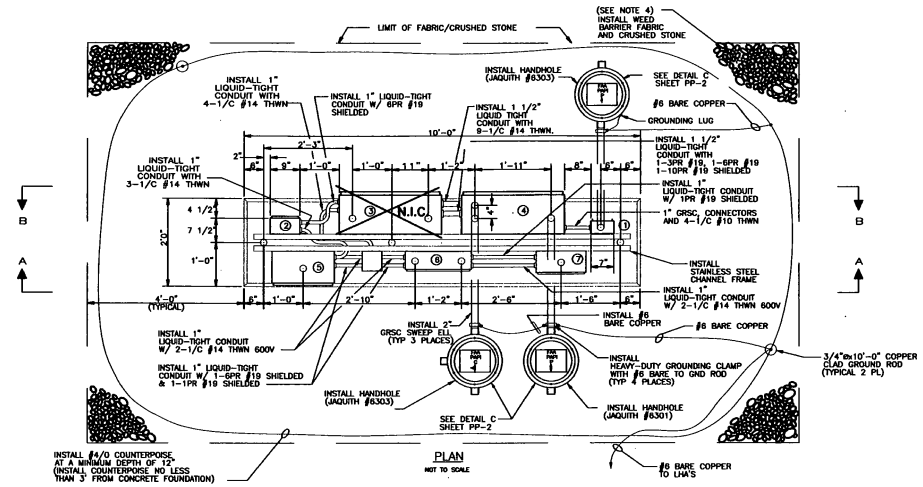
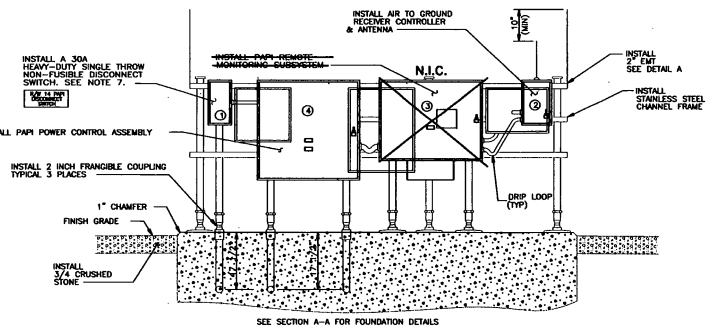


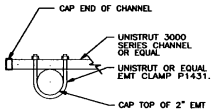
PLAN

NOT TO SCALE



SECTION B–B

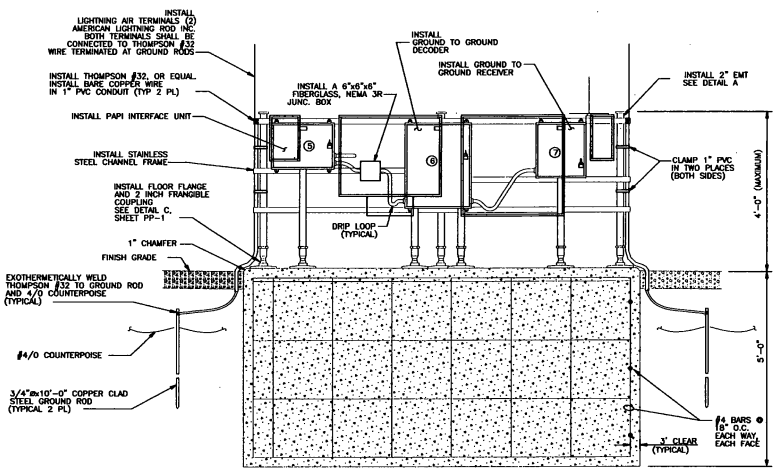
NOT TO SCALE



DETAIL A

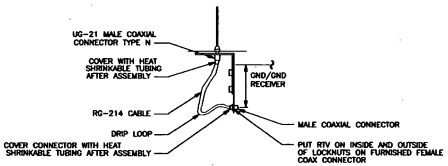
UNISTRUT CHANNEL MOUNTING DETAIL

NOT TO SCALE



SECTION A–A

NOT TO SCALE



DETAIL B

GROUND TO GROUND RECEIVER ANTENNA MOUNTING DETAIL

NOT TO SCALE

NOTES

1. FOUNDATION DEPTH SHALL BE 6 FEET (MIN.), EXCEPT WHERE THERE IS FIRM BEDROCK ABOVE THIS DEPTH. THE BOTTOM OF ALL FOUNDATION EXCAVATIONS SHALL BE FREE OF WATER AND LOOSE EARTH AND SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT AS PER AASHTO T-180, PRIOR TO INSTALLING FOUNDATIONS. WHERE REQUIRED, FILL SHALL BE PLACED IN LAYERS OF 6 INCHES (MAX) AND SHALL BE COMPACTED IN THE SAME MANNER AS DESCRIBED ABOVE.
2. CONCRETE FOUNDATIONS SHALL HAVE SMOOTH VERTICAL SURFACES SO AS TO BE RESISTANT TO FROST HEAVES.
3. CONCRETE SHALL DEVELOP MINIMUM STRENGTH OF 3000 PSI IN 28 DAYS WITH MAXIMUM SLUMP OF 3 INCHES AND MAXIMUM AGGREGATE SIZE OF 3/4 INCH. CONCRETE MIX SHALL HAVE AN AIR ENTRAINING AGENT CONFORMING TO ASTM C-260. CONCRETE SHALL BE PROTECTED FROM FREEZING DURING AND FOR 7 DAYS AFTER PLACEMENT.
4. WEED BARRIER FABRIC, COVERED WITH A 4 INCH LAYER OF CRUSHED STONE (3/4 INCH DIAM MAX), SHALL BE PLACED IN THE AREA EXTENDING 4 FEET FROM EACH SIDE OF EACH LHA AND POWER AND CONTROL STATION PAD.
5. CAP UNUSED COUPLING IN JAQUITH CANS.
6. ALL HARDWARE SHALL BE STAINLESS STEEL. CHANNEL (UNISTRUT OR EQUAL)SHALL BE STAINLESS STEEL. GRSC INDICATES GALVANIZED RIGID STEEL CONDUIT.
7. AN ENGRAVED PLASTIC OR OTHER APPROVED LABEL SHALL BE AFFIXED TO EQUIPMENT ENCLOSURE WITH EPOXY CEMENT. LABEL SHALL READ "6/W 14 PAPI" AND SHALL INCLUDE CABINET NAME(I.E. "DISCONNECT SWITCH") UNLESS OTHERWISE DIRECTED.
8. HANDHOLE COVERS SHALL BE IDENTIFIED WITH THE APPROPRIATE INFORMATION ON A 1/16"(MIN) THICK BRASS PLATE FASTENED TO THE COVER WITH A MINIMUM OF TWO 10-32 BRASS SCREWS.

LEGEND

1. DISCONNECT SWITCH
2. AIR TO GROUND RECEIVER
3. ~~REMOTE MONITORING SUBSYSTEM~~ — N.I.C.
4. POWER AND CONTROL ASSEMBLY
5. PAPI INTERFACE UNIT
6. GROUND TO GROUND DECODER
7. GROUND TO GROUND RECEIVER

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King, Inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18–36 RECONSTRUCTION
PAPI POWER AND CONTROL STATIONS AND FOUNDATION

DRAWN BY JJP	DATE MAR. 2000
CHECKED BY	PROJ. NO. N15500
PROJ. ENG. JAA	DRAW. NO. 1
SHEET PP-3	

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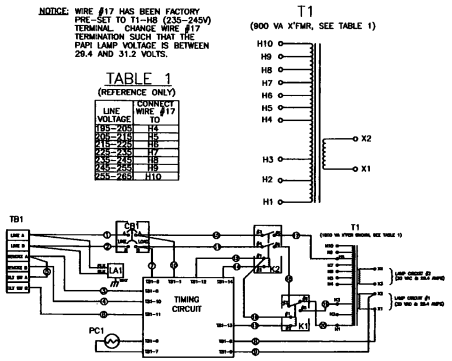
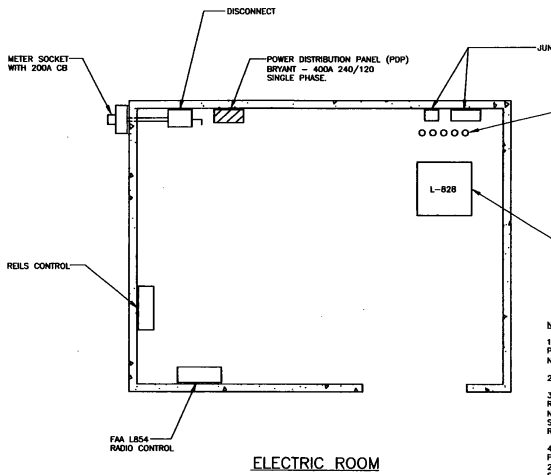
NOTICE: WIRE #17 HAS BEEN FACTORY PRE-SET TO T1-H8 (235-245V) TERMINAL. CHANGE WIRE #17 TERMINATION SUCH THAT THE PAPI LAMP VOLTAGE IS BETWEEN 29.4 AND 31.2 VOLTS.

TABLE 1
(REFERENCE ONLY)

LINE VOLTAGE	CONNECT WIRE #17 TO
185-195	H4
205-215	H5
215-225	H6
225-235	H7
235-245	H8
245-255	H9
255-265	H10



SYSTEM WIRING DIAGRAM
NOT TO SCALE
POWER & CONTROL UNIT ASSY



ELECTRIC ROOM
NOT TO SCALE

NOTES

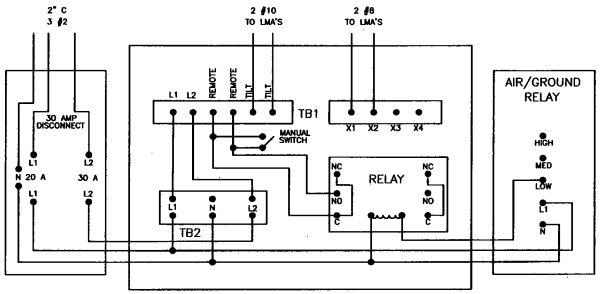
1. INSTALL NEW POWER CIRCUIT FROM PDP TO NEW L-828. PROVIDE NEW 2P, 40 ACB. USE 2#8, 1#10G, 1#C.

2. REMOVE EXISTING REILS CONTROLS

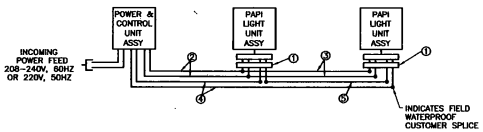
3. PROVIDE A NEW POWER CIRCUIT TO NEW REILS FROM PANEL PDP. PROVIDE NEW 20A, 2PCB. 2#8, 1#10G. SEE SHEET LP-1 FOR CONDUIT SIZE AND ROUTING.

4. PROVIDE NEW POWER FROM PDP TO PAPI. PROVIDE NEW 20A, 2PCB. 2#8, 1#10G SEE SHEET LP-1 FOR CONDUIT SIZE AND RATING.

5. RECONNECT THE AIR TO GROUND RECEIVER L-854 TO THE OPERATING CONTROLS OF THE CONSTANT CURRENT TRANSFORMER L-828 TO MATCH THE EXISTING CONTROL PATTERN. THIS WILL ALLOW FOR THREE LEVELS OF LIGHTING.



PAPI POWER AND CONTROL UNIT
NOT TO SCALE



① = CONSOLIDATING HARNESS, 4/#14 AWG LEADS (SUPPLIED)
② = OUTGOING POWER FEED FROM POWER & CONTROL UNIT ASSY T1-X TERMINALS, USE #8 AWG MIN (NOT SUPPLIED)
③ = POWER FEED FROM PREVIOUS LIGHT UNIT ASSY, USE #14 AWG MIN (NOT SUPPLIED)
④ = TILT SWITCH LEADS FROM POWER & CONTROL UNIT ASSY TB1 TERMINALS TILT SWITCH A & B, USE #14 AWG MIN (NOT SUPPLIED)
⑤ = TILT SWITCH LEAD FROM PREVIOUS LIGHT UNIT ASSY, USE #14 AWG MIN (NOT SUPPLIED)

CONSOLIDATING HARNESS LEAD COLOR CODES
RED = POWER LEADS WHITE = POWER LEAD BLACK = TILT SWITCH LEAD GREEN = TILT SWITCH LEAD

NOTE: ON 8812A-2-11 OR -20 PAPI SYSTEMS, NO TILT SWITCH WIRES (④ & ⑤) ARE REQUIRED. A JUMPER WIRE (#16 AWG MIN) MUST BE ADDED BETWEEN POWER & CONTROL UNIT ASSY TB1 TERMINALS TILT SWITCH A & B FOR UNIT FUNCTION.

L-881 STYLE "A" SYSTEM
NO SCALE
PART NO's 8812A-1, 8812A-2 & 8812A-2-11 OR -20
PAPI FIELD WIRING CONNECTIONS

NO.	DATE	REVISIONS	BY	CK'D

DuBois & King inc.
engineering planning management development

VERMONT AGENCY OF TRANSPORTATION
COVENTRY, VERMONT
NEWPORT STATE AIRPORT
RUNWAY 18-36 RECONSTRUCTION
PAPI WIRING/ ELECTRIC ROOM DIAGRAM AND DETAIL

DRAWN BY: JJP	DATE: MAR. 2000
CHECKED BY:	PROJ. NO.: N15500
PROJ. ENG.: JAA	DRAW. NO.: 1

SHEET PP-4

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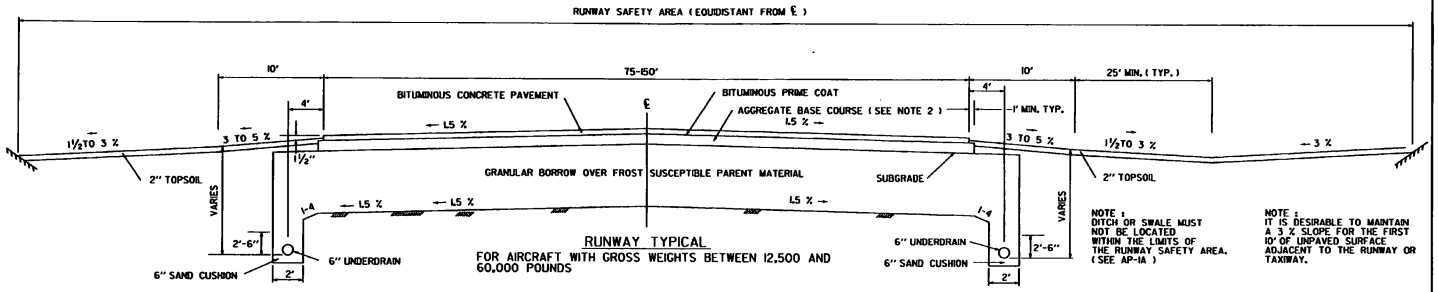
NOTES

1. PAVEMENT DESIGN IS BASED ON CURRENT FAA ADVISORY CIRCULAR .

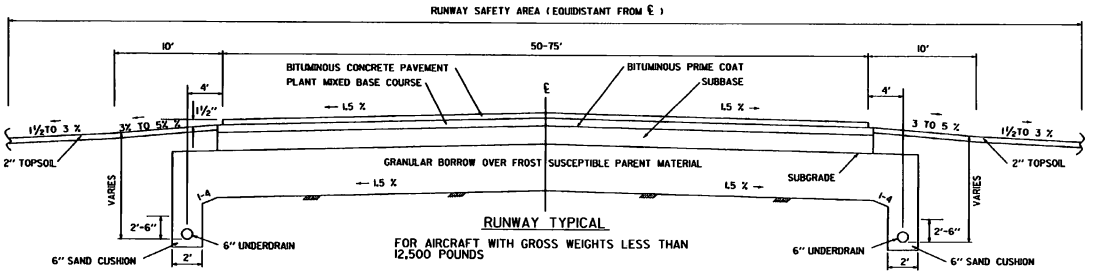
AIRPORT	AVG. FROST PENETRATION	REQUIRED PAVEMENT SECTION FOR 65 % FROST PROTECTION 65 % (MINIMUM)	REQUIRED PAVEMENT SECTION FOR 80 % FROST PROTECTION 80 % (DESIRED)
BENNINGTON	58"	38"	46"
CALEDONIA	72"	47"	58"
E.F. KNAPP	70"	45"	56"
FRANKLIN	70"	45"	56"
MIDDLEBURY	65"	42"	52"
MORRISVILLE-STOWE	72"	47"	58"
NEWPORT	75"	49"	60"
RUTLAND	65"	42"	52"
HARTNESS	60"	39"	48"

2. FOR SURFACES DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS GREATER THAN 30,000 POUNDS, USE CRUSHED AGGREGATE BASE COURSE, TYPE II. FOR SURFACES DESIGNED FOR AIRCRAFT WITH GROSS TAKEOFF WEIGHTS BETWEEN 12,500 POUNDS AND 30,000 POUNDS, USE EITHER CRUSHED AGGREGATE BASE COURSE, TYPE I OR UNCRUSHED AGGREGATE BASE COURSE.

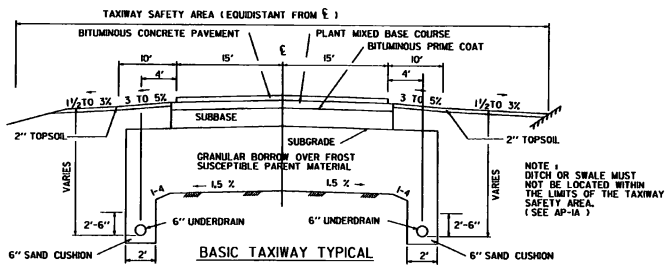
3. FOR AIRPORT DESIGN GROUP CRITERIA, REFER TO CURRENT FAA ADVISORY CIRCULAR .



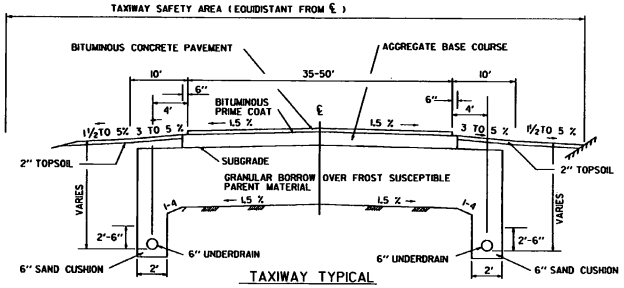
RUNWAY TYPICAL
FOR AIRCRAFT WITH GROSS WEIGHTS BETWEEN 12,500 AND 60,000 POUNDS



RUNWAY TYPICAL
FOR AIRCRAFT WITH GROSS WEIGHTS LESS THAN 12,500 POUNDS



BASIC TAXIWAY TYPICAL
FOR AIRCRAFT WITH GROSS WEIGHTS LESS THAN 12,500 POUNDS



TAXIWAY TYPICAL
FOR AIRCRAFT WITH GROSS WEIGHTS BETWEEN 12,500 AND 60,000 POUNDS

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

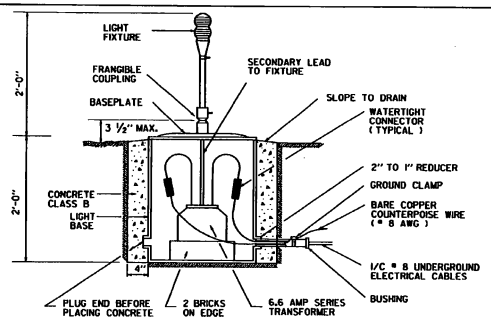
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY AND TAXIWAY TYPICALS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
AP-1

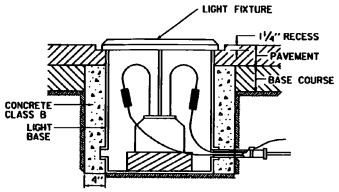


NOTES :

1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
2. SEAL END OF CONDUIT (DUCT SEAL)
3. PROVIDE ½" PER FT. PITCH ON ALL CONDUITS

BASE MOUNTED UNIT

ELEVATED LIGHT
NO SCALE



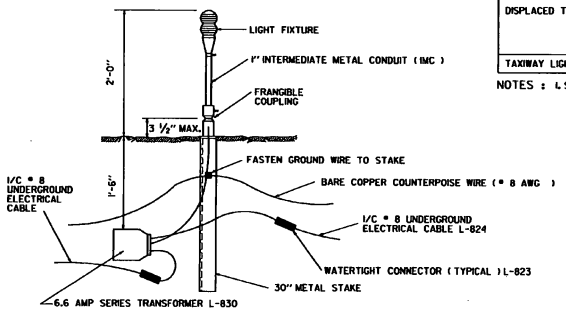
NOTE : FOR ALL OTHER DETAILS, SEE BASE MOUNTED UNIT FOR ELEVATED LIGHT.

BASE MOUNTED UNIT

SEMI-FLUSH LIGHT
NO SCALE

LENS AND LAMP SELECTION TABLE			
LIGHT LOCATION	LAMP: MEDIUM INTENSITY	LAMP: HIGH INTENSITY	LENS
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 15-20W	360° CLEAR 180° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 15-20W	180° RED/180° GREEN
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W	6.6A, 15-20W	360° RED 180° RED/180° CLEAR 180° OBSCURED/180° GREEN 180° CLEAR/180° GREEN
TAXIWAY LIGHT	6.6A, 30W		360° BLUE

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



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 ⅜" WITH A SUITABLE TAPPED FITTING BOLTED AT THE TOP TO RECEIVE THE FRANGIBLE COUPLING.

STAKE MOUNTED UNIT

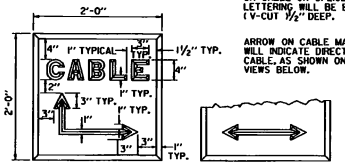
ELEVATED LIGHT
NO SCALE

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

NOTES

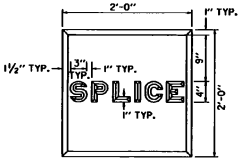
HAND LETTERING NOT ALLOWED ON CABLE OR SPLICE MARKERS. LETTERING WILL BE EMBOSSED (V-CUT ½" DEEP.

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



PLAN VIEW WITH ARROW INDICATING CHANGE IN DIRECTION OF CABLE.

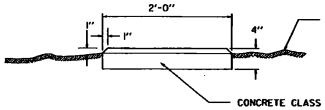
PARTIAL PLAN VIEW WITH ARROW INDICATING STRAIGHT-LINE CABLE INSTALLATION.



PLAN VIEW
SPLICE MARKER

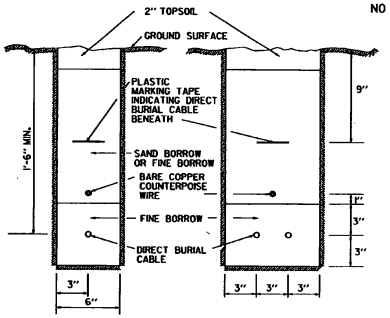
CABLE MARKER

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



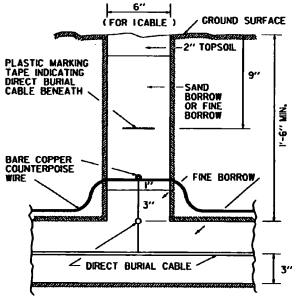
ELEVATION VIEW (TYPICAL FOR CABLE AND SPLICE MARKERS)

CABLE AND SPLICE 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

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

LIGHTING & ELECTRICAL DETAILS

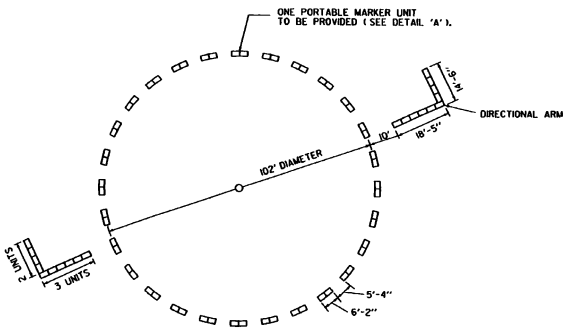
VERMONT AGENCY OF TRANSPORTATION

STANDARD
AP-2

NOTES

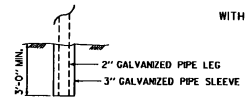
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.

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.



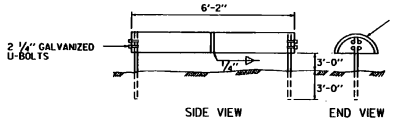
SEGMENTED CIRCLE LAYOUT

WITH DIRECTIONAL ARMS



LEG DETAIL FOR PORTABLE MARKER UNIT

DETAIL 'A'

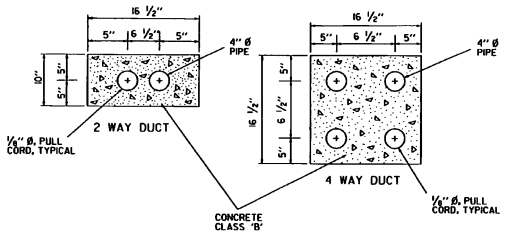


MARKER UNIT — STANDARD 55 GALLON METAL DRUM, CUT IN HALF AND WELDED END TO END. MARKER UNITS TO BE PAINTED AVIATION ORANGE.

PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE. STATIONARY UNITS HAVE LEGS OF 2" Ø GALVANIZED PIPE OR 1 1/2" x 3/8" L (GALV.).

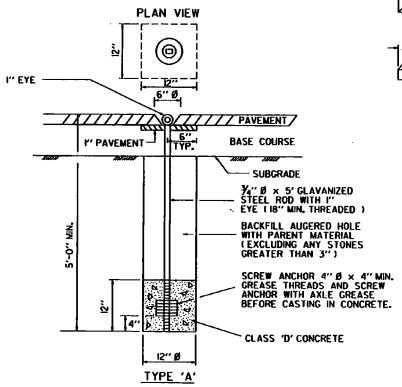
SEGMENTED CIRCLE MARKER UNIT

SECTION A-A

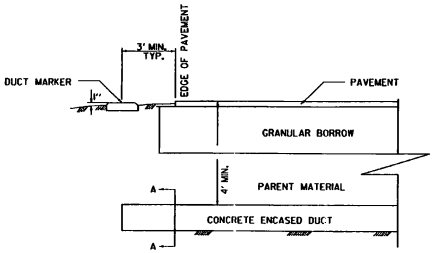


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

SEE STANDARD AP-2 FOR DIRECT BURIAL CABLE DETAILS.

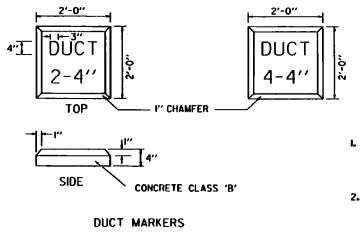


AIRCRAFT TIE DOWN ANCHOR



AIRPORT UNDERGROUND ELECTRICAL DUCT

(IN EARTH)

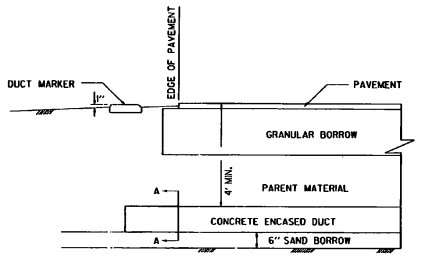


DUCT MARKERS

NOTES

1. LETTERING ON DUCT MARKERS TO BE EMBOSSED, 'V' CUT, 1/2 " DEEP.

2. HAND LETTERING NOT ALLOWED



AIRPORT UNDERGROUND ELECTRICAL DUCT

(IN ROCK)

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE

MAR. 5, 1990 - SHEET UPDATED

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

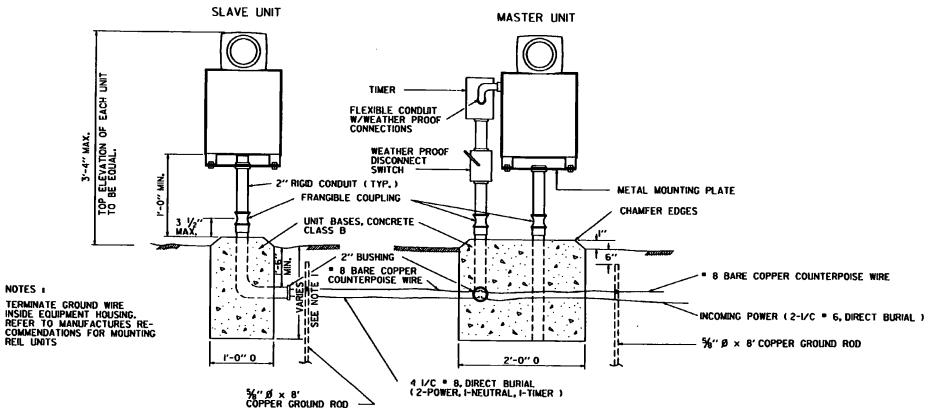
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

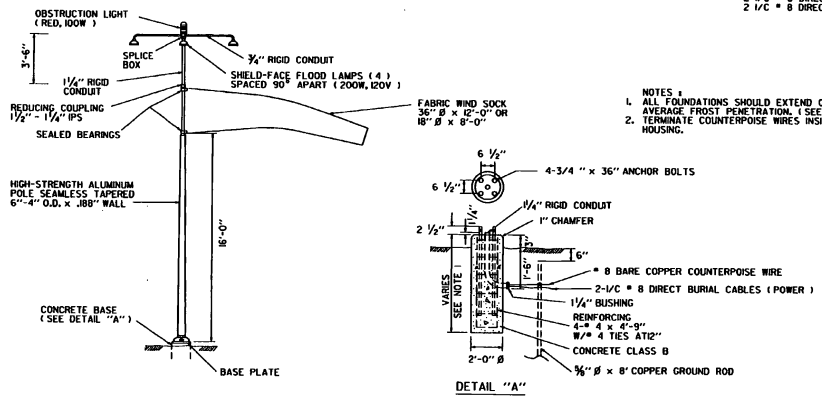
MISCELLANEOUS AIRPORT DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD AP-3



RUNWAY END IDENTIFIER LIGHTS (REILS) L-849

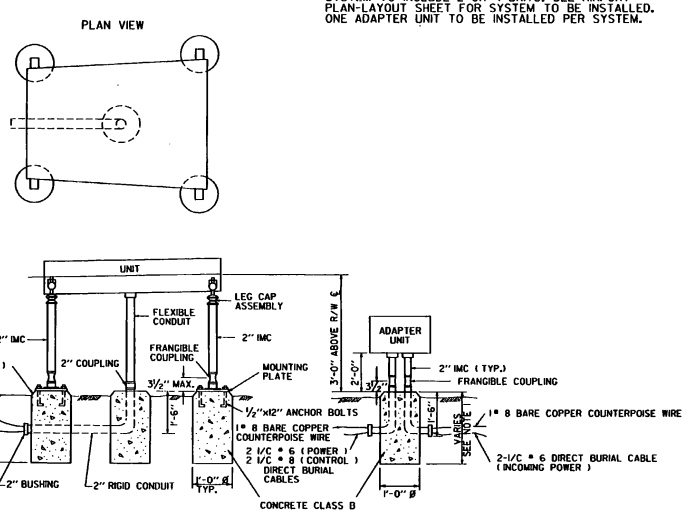


DETAIL "A"

NOTES :
1. ALL FOUNDATIONS SHOULD EXTEND ONE (1) FOOT BELOW AVERAGE FROST PENETRATION. (SEE STANDARD AP-1)
2. TERMINATE COUNTERPOISE WIRES INSIDE EQUIPMENT HOUSING.

EIGHT FOOT OR TWEVLE FOOT ILLUMINATED WIND CONE L-806

NOTES :
SYSTEM TO INCLUDE 2 OR 4 UNITS. SEE AIRPORT PLAN-LAYOUT SHEET FOR SYSTEM TO BE INSTALLED. ONE ADAPTER UNIT TO BE INSTALLED PER SYSTEM.



L880 (4 LIGHT UNITS)

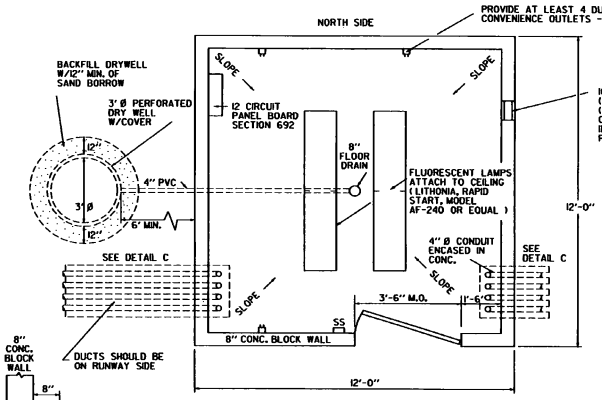
PRECISION APPROACH PATH INDICATOR (PAPI)

L881(2 LIGHT UNITS)

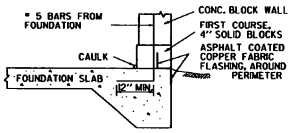
REVISIONS AND CORRECTIONS	APPROVED	VISUAL APPROACH AIDS	STANDARD AP-4
DEC. 15, 1981 - ORIGINAL APPROVAL DATE MAR. 5, 1990 - SHEET UPDATED JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.	APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. (FHWA FINAL APPROVAL PENDING.) DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT		VERMONT AGENCY OF TRANSPORTATION

NOTES

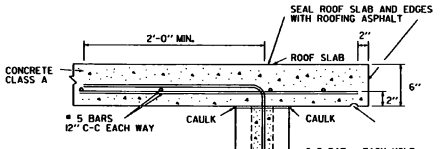
1. MOUNT CONTACTORS, BOOSTER TRANSFORMERS AND MISC. HARDWARE ON SAME WALL AS NEW 12 CIRCUIT PANEL BOX.
2. PROVIDE GROUND BUS BENEATH 12 CIRCUIT PANEL BOX.
3. INSTALL ELECTRIC PANEL ON ¾" PLYWOOD, SET OFF FROM WALL ON 2" x 4" s. ALL WOOD TO BE PAINTED .
4. PROVIDE AT LEAST 1% ROOF SLOPE (TO EAST).
5. 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.

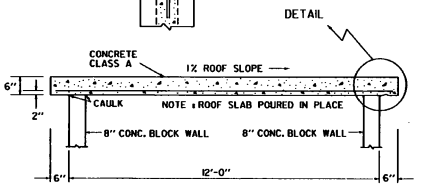


PLAN

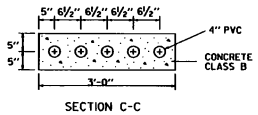


DETAIL A

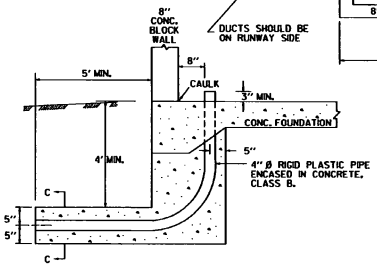




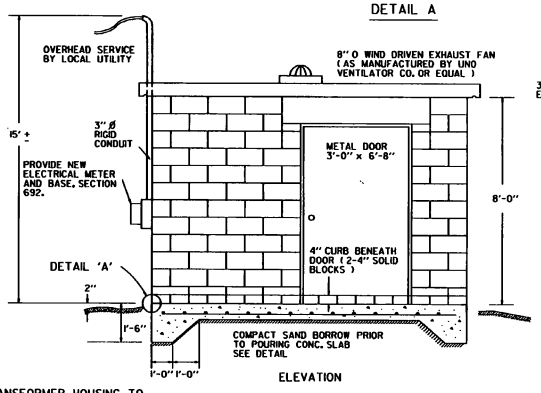
ROOF DETAIL



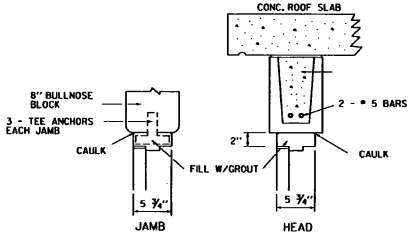
SECTION C-C



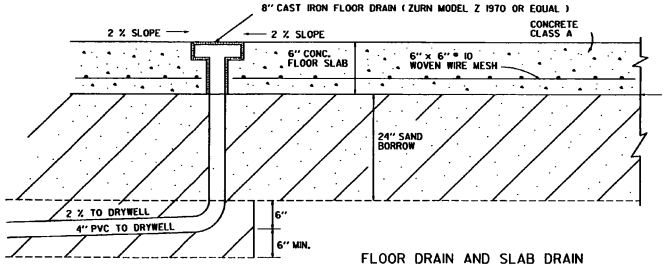
DETAIL C



ELEVATION



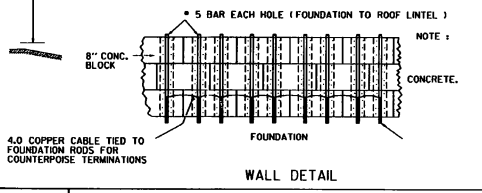
DOOR DETAILS FOR HOLLOW METAL FRAMES



FLOOR DRAIN AND SLAB DRAIN

NOTE :
AIRPORT TRANSFORMER HOUSING TO BE CONSTRUCTED AS PER CURRENT FAA ADVISORY CIRCULAR.

AIRPORT TRANSFORMER VAULT



4.0 COPPER CABLE TIED TO FOUNDATION RODS FOR COUNTERPOISE TERMINATIONS

WALL DETAIL

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

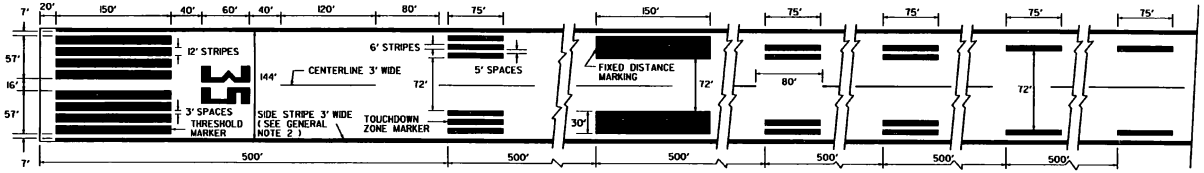
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

TRANSFORMER VAULT DETAILS

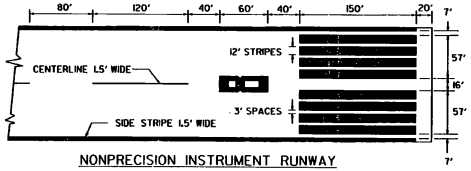
VERMONT AGENCY OF TRANSPORTATION

STANDARD
AP-9



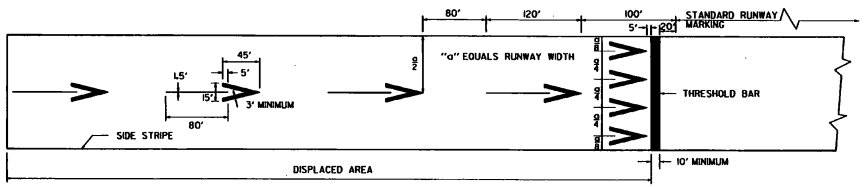
PRECISION INSTRUMENT RUNWAY

NOT TO SCALE



NONPRECISION INSTRUMENT RUNWAY

NOT TO SCALE

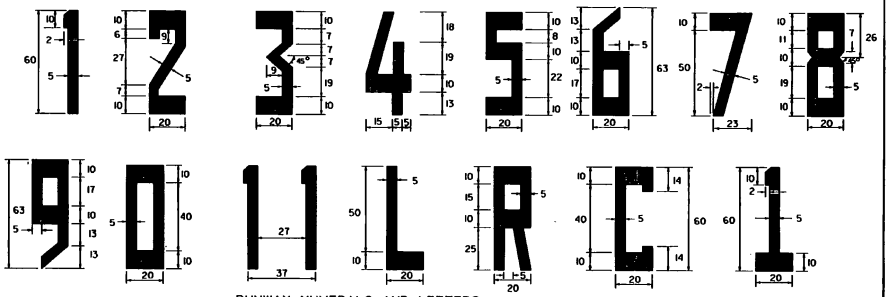


DISPLACED THRESHOLD MARKINGS

NOT TO SCALE

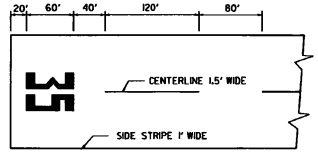
NOTES

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.



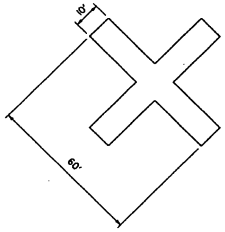
NOTES

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



VISUAL RUNWAY

NOT TO SCALE



TEMPORARY
CLOSED RUNWAY MARKER

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.

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 150' 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 :
MARKING OF RUNWAY SHOULD BE
BASED ON FAA SPECIFICATIONS.
SEE CURRENT FAA ADVISORY CIRCULAR.

REVISIONS AND CORRECTIONS

JUNE 29, 1982 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

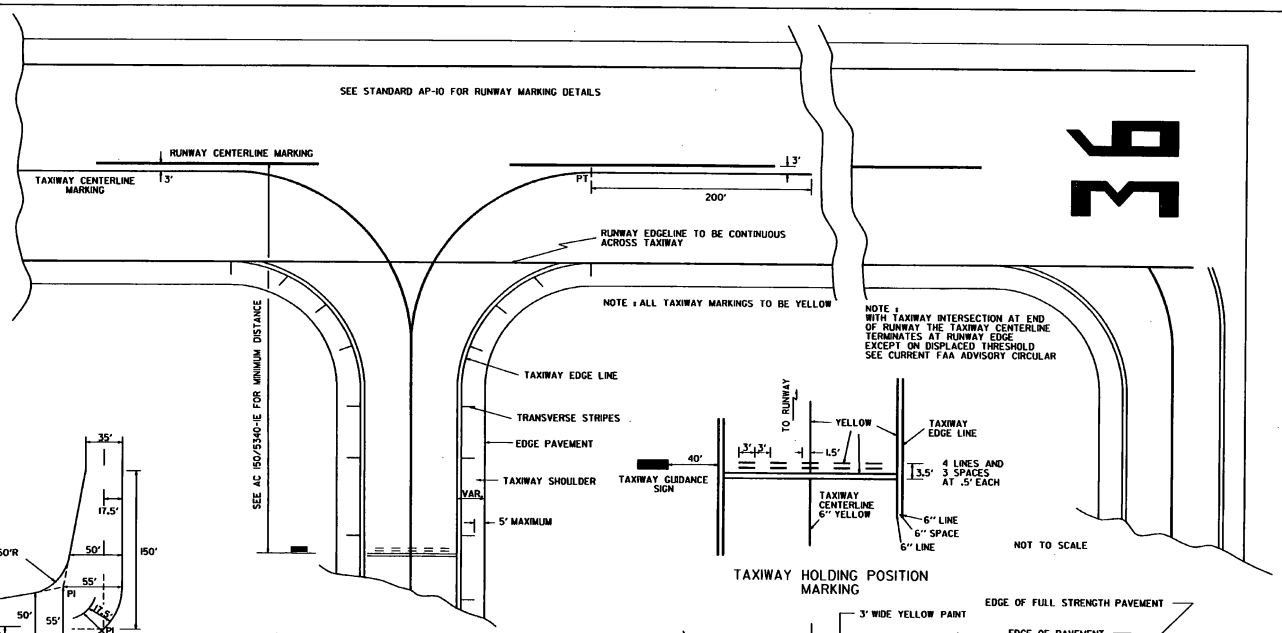
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

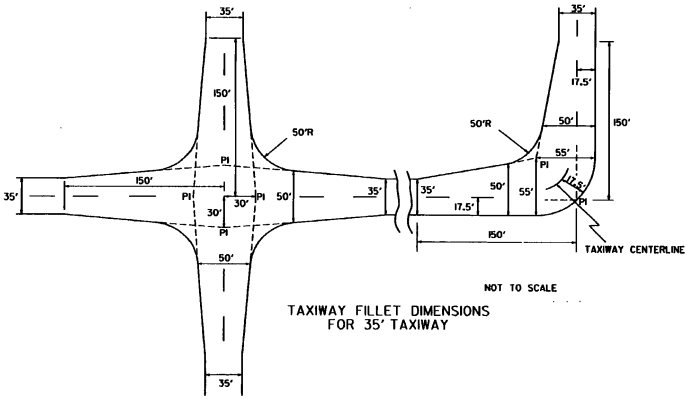
RUNWAY MARKING DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
AP-10

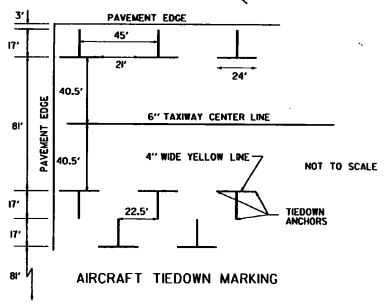
NOTE :
ON LIGHT COLORED PAVEMENTS THE CONTRAST OF THE MARKINGS IS TO BE INCREASED BY OUTLINING ALL MARKINGS WITH A 6" BLACK BORDER.



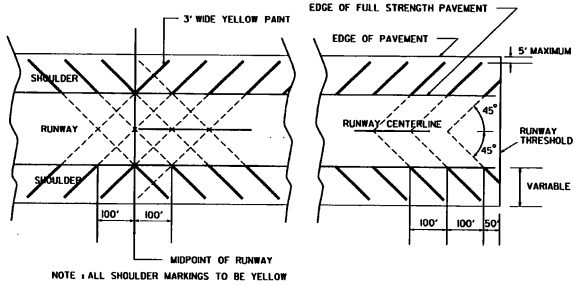


TAXIWAY FILLET DIMENSIONS
FOR 35' TAXIWAY

TAXIWAY HOLDING POSITION
MARKING



AIRCRAFT TIEDOWN MARKING



NON-FULL STRENGTH
RUNWAY SHOULDER MARKING

REVISIONS AND CORRECTIONS

MAR. 1, 1990 - SHEET UPDATED

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

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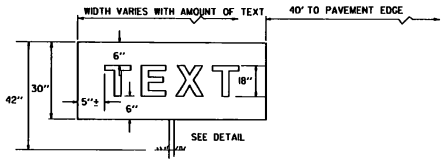
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

TAXIWAY AND APRON MARKING DETAILS

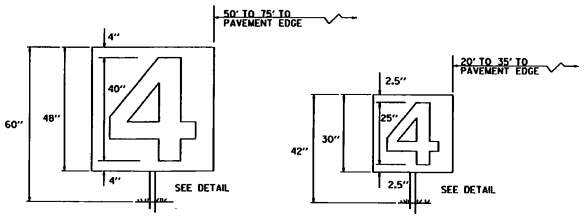
VERMONT AGENCY OF TRANSPORTATION

STANDARD
AP-11



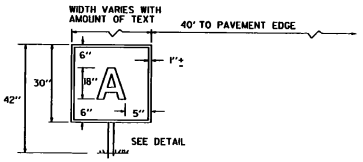
MANDATORY SIGNS

- 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.



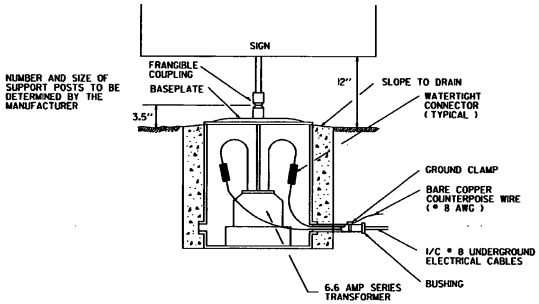
RUNWAY DISTANCE REMAINING SIGNS

- 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.



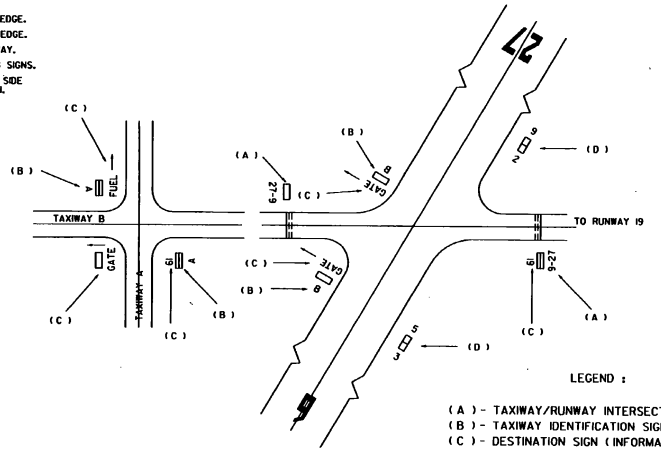
INFORMATION SIGNS

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



BASE FOR LIGHTED SIGNS

DETAIL



TYPICAL SIGN APPLICATIONS

LEGEND :

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

REFER TO CURRENT FAA ADVISORY CIRCULAR .

REVISIONS AND CORRECTIONS

MAR. 1, 1990 - SHEET UPDATED

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURE.

APPROVED

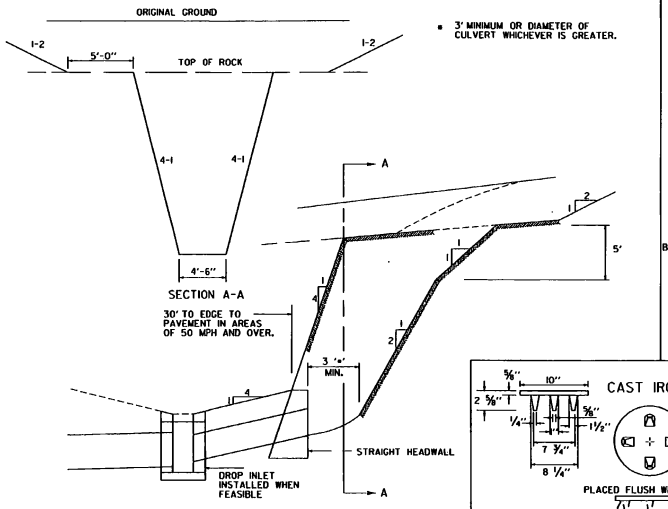
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

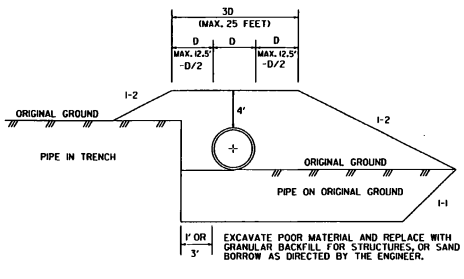
SIGN SYSTEMS

VERMONT AGENCY OF TRANSPORTATION

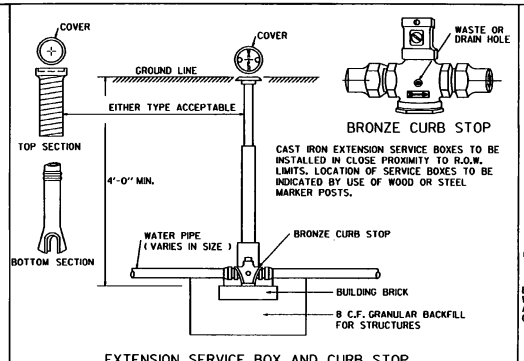
STANDARD AP-12



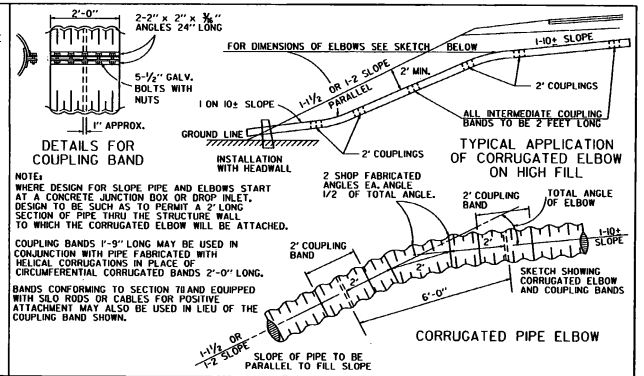
TYPICAL WATERFALL FOR CULVERT UP TO AND INCLUDING 48" DIAMETER

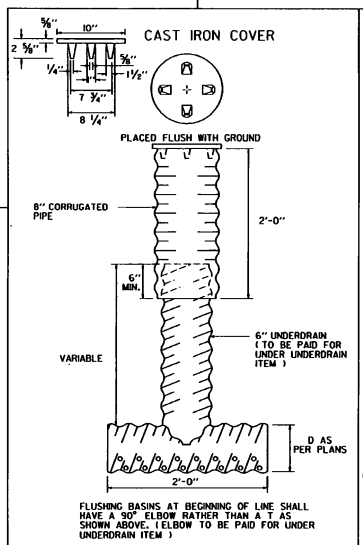


GRANULAR MATERIAL AT CULVERT LOCATIONS

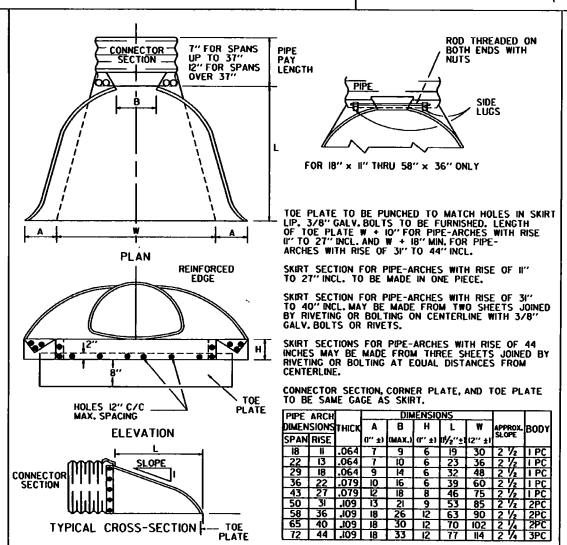


EXTENSION SERVICE BOX AND CURB STOP



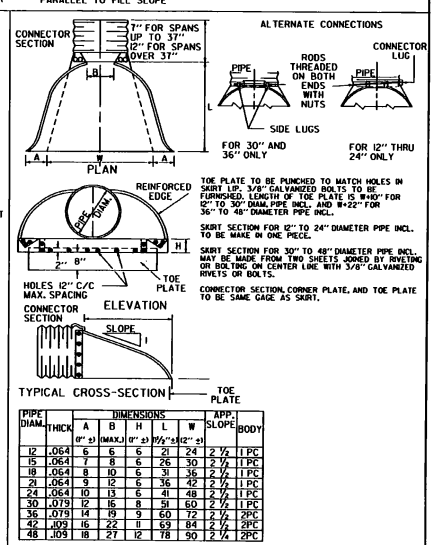


UNDERDRAIN FLUSHING BASIN



PIPE ARCH DIMENSIONS SPAN	RISE	THICK	DIMENSIONS A (0" ±)	B (MAX.)	H (0" ±)	L 11½"±	W (12" ±)	APPROX. SLOPE	BODY
18	11	.064	7	9	6	19	30	2 ½	1 PC
22	13	.064	7	10	6	23	36	2 ½	1 PC
29	18	.064	9	14	6	32	48	2 ½	1 PC
36	22	.079	10	16	6	39	60	2 ½	1 PC
43	27	.079	12	18	8	46	75	2 ½	1 PC
50	31	.109	13	21	9	53	85	2 ½	2PC
58	36	.109	18	26	12	63	90	2 ½	2PC
65	40	.109	18	30	12	70	102	2 ¼	2PC
72	44	.109	18	33	12	77	114	2 ¼	3PC

CORRUGATED STEEL PIPE ARCH END SECTION



PIPE DIAM.	THICK	DIMENSIONS A (0" ±)	B (MAX.)	H (0" ±)	L 11½"±	W (12" ±)	APP. SLOPE	BODY
12	.064	6	6	6	21	24	2 ½	1 PC
15	.064	7	8	6	26	30	2 ½	1 PC
18	.064	8	10	6	31	36	2 ½	1 PC
21	.064	9	12	6	36	42	2 ½	1 PC
24	.064	10	13	6	41	48	2 ½	1 PC
30	.079	12	16	8	51	60	2 ½	1 PC
36	.079	14	19	9	60	72	2 ½	2PC
42	.109	16	22	11	69	84	2 ½	2PC
48	.109	18	27	12	78	90	2 ¼	2PC

CORRUGATED STEEL PIPE END SECTION

REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL DATE
JULY 17, 1972 - HELICAL CORRUGATED COUPLING NOTE ADDED
JULY 24, 1975 - GRANULAR MATERIAL AT CULVERT LOCATIONS CORRECTED
OCT. 30, 1985 - REVISED TO CONFORM TO 1986 SPECIFICATIONS
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF ENGINEERING

DESIGN ENGINEER

TYPICAL WATERFALL FOR CULVERTS UP TO AND INCLUDING 48" DIAMETER
EXTENSION SERVICE BOX AND CURB STOP
CORRUGATED PIPE ELBOW
GRANULAR BORROW AT CULVERT LOCATIONS
UNDERDRAIN FLUSHING BASIN
CORRUGATED STEEL PIPE END SECTION
CORRUGATED STEEL PIPE ARCH END SECTION

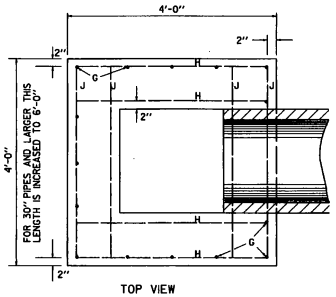
VERMONT AGENCY OF TRANSPORTATION

STANDARD
D-4

REINFORCED CONCRETE DROP INLET WITH GRATE (BOTTOM SECTION)

ANY OF THE COMBINATIONS OF TOPS, CURBS AND GRATES FOUND ON SHEETS D-6, D-9, D-10, D-11, D-15 AND D-16 CAN BE ADAPTED FOR USE WITH THIS STRUCTURE.

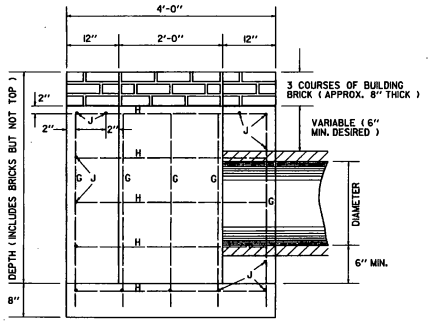
MINIMUM DEPTH FOR
15" 3'-6"
18" 3'-6"
24" 4'-0"



STEEL SCHEDULE FOR DROP INLET (BOTTOM SECTION ONLY)												
DEPTH	12" TO 24" DIAMETER 4' x 4' D.I.						30" DIAMETER 4' x 6' D.I.					
	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH
3'-0"	12	3'-8"	13	3'-8"	15	2'-8"						
3'-6"	12	3'-8"	13	3'-8"	15	3'-2"						
4'-0"	14	3'-8"	15	3'-8"	15	3'-8"						
4'-6"	14	3'-8"	15	3'-8"	15	4'-2"	12	5'-8"	17	3'-8"	17	4'-2"
5'-0"	16	3'-8"	17	3'-8"	15	4'-8"	14	5'-8"	19	3'-8"	17	4'-8"
5'-6"	16	3'-8"	17	3'-8"	15	5'-2"	14	5'-8"	19	3'-8"	17	5'-2"
6'-0"	18	3'-8"	19	3'-8"	15	5'-8"	16	5'-8"	21	3'-8"	17	5'-8"

DEPTH	36" DIAMETER 4' x 6' D.I.					
	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH
5'-0"	14	5'-8"	19	3'-8"	17	4'-8"
5'-6"	14	5'-8"	19	3'-8"	17	5'-2"
6'-0"	16	5'-8"	21	3'-8"	17	5'-8"

CONCRETE AND STEEL QUANTITIES FOR DROP INLETS (BOTTOM SECTION ONLY)						
DEPTH	12"-24" DIA.		30" DIA.		36" DIA.	
	CONC BY C.Y.	STEEL	CONC BY C.Y.	STEEL	CONC BY C.Y.	STEEL
3'-0"	1.73	138				
3'-6"	1.95	145				
4'-0"	2.17	168				
4'-6"	2.40	176	3.08	210		
5'-0"	2.62	199	3.37	238	3.29	238
5'-6"	2.84	207	3.67	247	3.59	247
6'-0"	3.06	230	3.97	276	3.89	276



1. TO FIND VOLUME OF CONCRETE FOR THE ENTIRE STRUCTURE, ADD THE VOLUME FOR THE TOP USED, TO THE VOLUME IN THIS TABLE. FOR VOLUME IN TOP, SEE SHEETS D-9, D-10.

2. ALL REINFORCING STEEL TO BE NO. 5 0 DEFORMED BARS, EVENLY SPACED WITH A MAXIMUM SPACING OF 12" CENTER TO CENTER.

3. DROP INLET TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501.

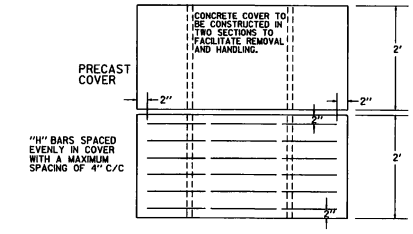
4. FURNISHING AND LAYING OF BRICKS FOR ADJUSTING ELEVATION OF GRATE, SHALL BE INCLUDED IN UNIT BID PRICE FOR CONCRETE, CLASS B AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES.

5. MORTAR, TYPE II, TO BE USED FOR JOINT FILLER AND LAYING OF BRICK.

6. FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE.

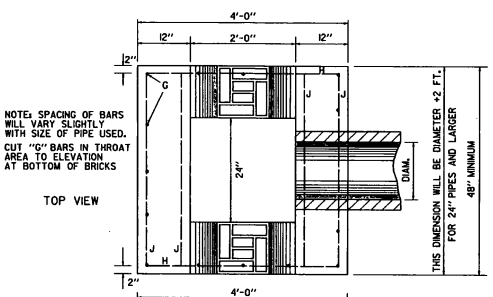
REINFORCED CONCRETE DROP INLET WITH PRECAST COVER

DROP INLET AND COVER TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501

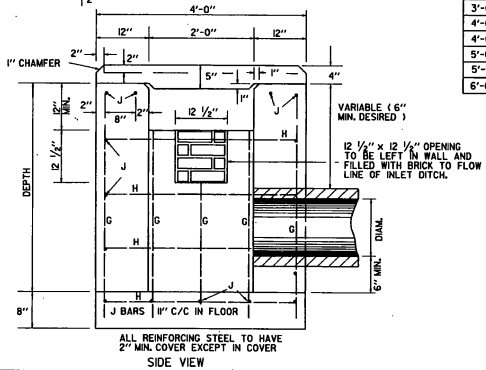


STEEL SCHEDULE FOR DROP INLETS WITH PRECAST COVERS										
DEPTH	12" TO 24" DIAMETER				30" DIAMETER					
	G	LENGTH	H-J	LENGTH	G	LENGTH	J	LENGTH	H	LENGTH
2'-0"	15	2'-4"	31	3'-8"						
2'-6"	15	2'-10"	33	3'-8"						
3'-0"	15	3'-4"	36	3'-8"						
3'-6"	15	3'-10"	36	3'-8"	16	3'-10"	12	4'-2"	23	3'-8"
4'-0"	15	4'-4"	39	3'-8"	16	4'-4"	14	4'-2"	23	3'-8"
4'-6"	15	4'-10"	39	3'-8"	16	4'-10"	14	4'-2"	25	3'-8"
5'-0"	15	5'-4"	42	3'-8"	16	5'-4"	16	4'-2"	25	3'-8"
5'-6"	15	5'-10"	42	3'-8"	16	5'-10"	16	4'-2"	27	3'-8"
6'-0"	15	6'-4"	45	3'-8"	16	6'-4"	18	4'-2"	27	3'-8"

DEPTH	36" DIAMETER					
	G	LENGTH	J	LENGTH	H	LENGTH
4'-0"	16	4'-4"	14	4'-8"	28	3'-8"
4'-6"	16	4'-10"	14	4'-8"	28	3'-8"
5'-0"	16	5'-4"	16	4'-8"	30	3'-8"
5'-6"	16	5'-10"	16	4'-8"	30	3'-8"
6'-0"	16	6'-4"	18	4'-8"	32	3'-8"



CONCRETE AND STEEL QUANTITIES FOR DROP INLETS OF VARIOUS DEPTHS								
DROP INLETS WITH PRECAST COVERS								
DEPTH	12" 15" 18"		24"		30"		36"	
	CONC BY C.Y.	STEEL LBS	CONC BY C.Y.	STEEL LBS.	CONC BY C.Y.	STEEL LBS	CONC BY C.Y.	STEEL LBS.
2'-0"	1.4	155						
2'-6"	1.6	171	1.6	171				
3'-0"	1.8	190	1.8	190				
3'-6"	2.0	198	2.0	198	2.1	204		
4'-0"	2.3	217	2.3	217	2.3	221	2.5	248
4'-6"	2.5	225	2.5	225	2.6	237	2.7	256
5'-0"	2.7	244	2.7	244	2.8	254	3.0	282
5'-6"	2.9	252	2.9	252	3.0	270	3.2	290
6'-0"	3.2	271	3.2	271	3.3	287	3.5	316



REVISIONS AND CORRECTIONS
DEC. 6, 1971 - ORIGINAL APPROVAL
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
JAN. 3, 2000 - CORRECTED TITLE AND MINOR EDITORIAL CHANGES

APPROVED

DIRECTOR OF PROJECT DEVELOPMENT

ROADWAY AND TRAFFIC DESIGN ENGINEER

REINFORCED CONCRETE DROP INLET WITH PRECAST COVER

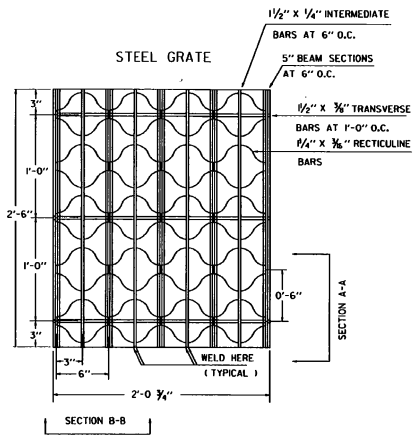
REINFORCED CONCRETE DROP INLET WITH GRATE (BOTTOM SECTION)

VERMONT AGENCY OF TRANSPORTATION

STANDARD

D - 8

STEEL GRATE

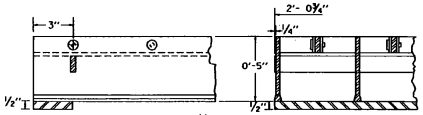


PLAN

GRATE SIZE SINGLE 24 ⅜" X 30"
DOUBLE 24 ¾" X 54"

WEIGHT 95 LBS OR MORE
GRATES SHALL BE CAPABLE OF SUPPORTING H-20 (32,000 LB. AXLE LOAD) INCLUDING 30% IMPACT.

UNIT STRESSES (LBS PER SQ. IN.)		18,000	20,000
MAIN BAR PARALLEL TO TRAFFIC	H-20	49"	53"
MAIN BAR PERPENDICULAR TO TRAFFIC	H-20	39"	42"

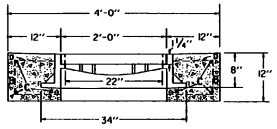


SECTION A-A SECTION B-B

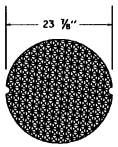
CAST IRON COVER WITH FRAME

BAR	NO.	LENGTH	
B	4		8" 3'-8" 8"
C	6	3'-8"	STRAIGHT
D	4	3'-8"	STRAIGHT

ALL REINFORCING STEEL TO BE No. 5 DEFORMED BARS



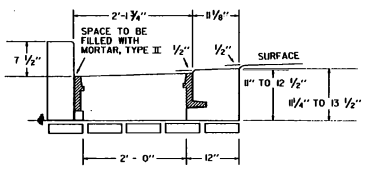
ELEVATION



GENERAL NOTES:
WEIGHT OF FRAME AND COVER = 425 LBS.

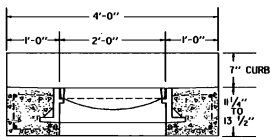
PLAN

CAST IRON GRATE WITH FRAME



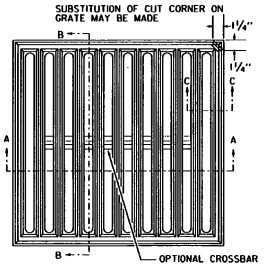
ELEVATION OF REINFORCED CONCRETE DROP INLET WITH VERTICAL GRANITE CURB AND 3 FLANGE CAST IRON FRAME FOR CAST IRON GRATE

SEE STANDARD D-9 FOR CONCRETE VOLUME, REINFORCING STEEL SCHEDULE, AND CURB JOINT DETAIL.

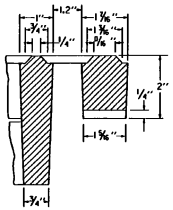


ELEVATION

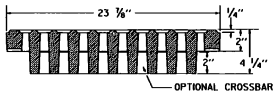
CAST IRON GRATE, TYPE A



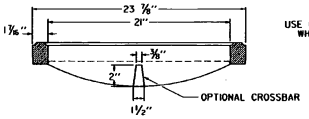
PLAN



SECTION C-C



SECTION A-A

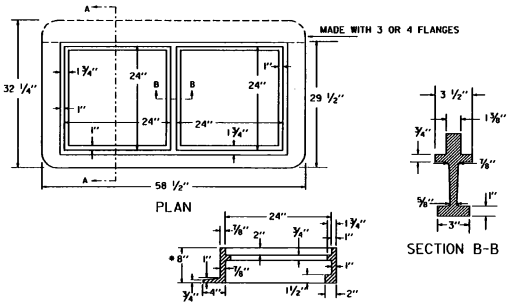


SECTION B-B

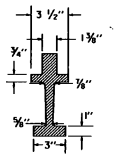
USE OF THE TYPE A GRATE IS PROHIBITED WHERE BICYCLE TRAFFIC IS EXPECTED

WEIGHT OF 3 FLANGED FRAME AND GRATE

GRATE	220 LBS
FRAME	260 LBS
TOTAL	480 LBS



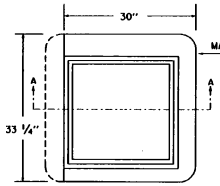
PLAN



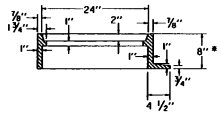
SECTION B-B

SECTION A-A

RECTANGULAR CAST IRON FRAME FOR TWO 24" SQUARE CAST IRON GRATES



PLAN



SECTION A-A

SQUARE CAST IRON FRAME FOR CAST IRON GRATE TYPE A

* NOTE: FRAME DEPTH TO BE "6" WHEN USED IN CONJUNCTION WITH DROP INLET DETAILED ON STANDARD D-6.

THIS FRAME TO BE PLACED IN DROP INLET TOP BEFORE CONCRETE IS POURED.

4 FLANGES UNLESS OTHERWISE INDICATED. FRAMES TO BE FURNISHED WITH 3 FLANGES WHEN USED IN CONJUNCTION WITH CURB OR AS DIRECTED BY THE ENGINEER.

REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL
APR. 25, 1972 - CAST IRON COVER CHANGED FROM SQUARE TO CIRCULAR
SEPT. 4, 1980 - OPTIONAL CROSSBAR ADDED TO A GRATE; NOTE ADDED TO A GRATE FRAME DETAIL
AUG. 25, 1981 - NOTE ADDED RESTRICTING USE OF TYPE A GRATE
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF ENGINEERING

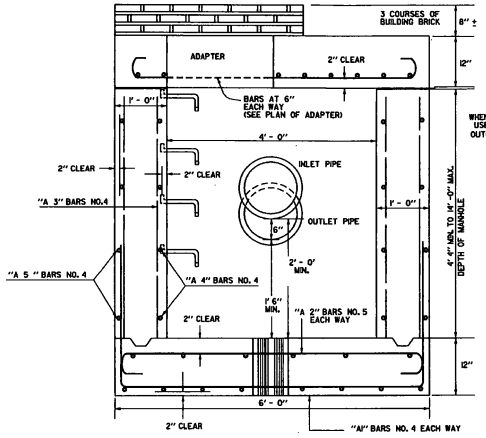
DESIGN ENGINEER, PE

STEEL GRATE
CAST IRON GRATE TYPE A
CAST IRON COVER

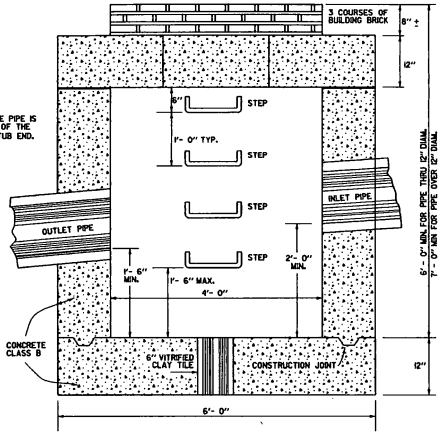
VERMONT AGENCY OF TRANSPORTATION

STANDARD
D-11

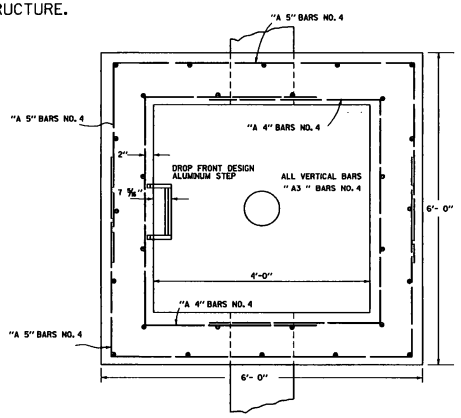
ANY OF THE COMBINATIONS OF TOPS, CURBS AND GRATES FOUND ON SHEETS D-6, D-9, D-10, D-11, D-15, AND D-16 CAN BE ADAPTED FOR USE WITH THIS STRUCTURE.



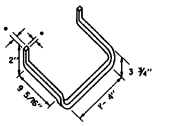
FRONT ELEVATION



SIDE ELEVATION

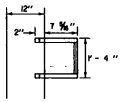


PLAN VIEW



ALUMINUM STEP (DROP FRONT)

* - INDIVIDUAL METAL RUNGS SHALL HAVE A MINIMUM DIMENSION OF 1" AND SHALL BE PAINTED OR OTHERWISE TREATED TO RESIST CORROSION AND RUSTING.

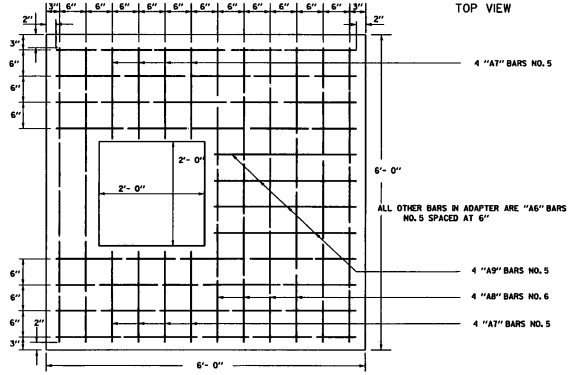


STEP DETAIL
TOP VIEW

REINFORCING STEEL SCHEDULE FOR CATCH BASIN						
BAR	HEIGHT					
	4'-4" MIN.	5'-0"	8'-0"	10'-0"	12'-0"	14'-0"
A 1	16 BARS NO. 4 AT 9 "	16	16	16	16	16
A 2	12 BARS NO. 5 AT 15 "	14 NO.5 AT 12"	14 NO.5 AT 12"	16 NO.5 AT 10"	18 NO.5 AT 9"	18 NO.5 AT 9"
A 3	28 BARS NO. 4 AT 18 "	28	28	28	28	28
A 4	8 BARS NO. 4 AT 15 "	10	14	18	20	24
A 5	8 BARS NO. 4 AT 15 "	10	14	18	20	24
A 6	12 BARS NO. 5 AT 6 "	12	12	12	12	12
A 7	8 BARS NO. 5 AT 6 "	8	8	8	8	8
A 8	4 BARS NO. 6 AT 6 "	4	4	4	4	4
A 9	4 BARS NO. 5 AT 6 "	4	4	4	4	4
TOTAL WEIGHT(LBS)	576	654	756	873	954	1060

1. MORTAR TYPE II TO BE USED FOR JOINT FILLER AND LAYING OF BRICK.
2. THREE COURSES OF BUILDING BRICK TO BE PLACED ON TOP OF CONCRETE ADAPTER PRIOR TO PLACING CONCRETE SEAT TO FACILITATE CHANGING ELEVATION OF CATCH BASIN OR MANHOLE
3. ALL REINFORCING BARS SPACED AS SHOWN OR NOTED. FOR SIZE AND LENGTH, SEE SCHEDULE. ALL REINFORCING STEEL TO BE ROUND DEFORMED BARS.
4. THE ADAPTER SHALL BE PLACED ON THE CATCH BASIN SO AS TO PROVIDE DIRECT ACCESS TO STEPS.
5. A7 AND A9 BARS MAY BE CUT FROM A6 BARS INORDER TO REDUCE THE NUMBER OF DIFFERENT BAR MARKS.

A1 BARS NO. 4	A2 BARS NO. 5	A3 BARS NO. 4 STRAIGHT		A4 BARS NO. 4	A5 BARS NO. 4	A6 BARS NO. 5	A7 BARS NO. 5	A8 BARS NO. 6	A9 BARS NO. 5
TOTAL LENGTH 11'- 3"	TOTAL LENGHT 6'- 10"	HEIGHT	LENGTH	TOTAL LENGHT 10'- 11"	TOTAL LENGHT 13'- 4"	TOTAL LENGHT 6'- 10"	TOTAL LENGHT 2'- 3"	TOTAL LENGHT 6'- 10"	TOTAL LENGHT 3'- 3"
B=2'-10" D=2'-10" C = 5'- 7"	A= 7" G= 7" B=5'- 8"	4'- 4"	4'- 2"	B=3'-3" D=3'-5" C = 4'- 5"	B=3'-10" D=3'-10" C = 5'- 8"	A= 7" G= 7" B=5'- 8"	A= 7" B=1'- 8"	A= 7" G= 7" B=5'- 8"	A= 7" B=2'- 8"
		6'- 0"	5'- 10"						
		8'- 0"	7'- 10"						
		10'- 0"	9'- 10"						
		12'- 0"	11'- 10"						
		14'- 0"	13'- 10"						



PLAN VIEW OF ADAPTER STEEL LAYOUT

REVISIONS AND CORRECTIONS

DEC. 14, 1971 - ORIGINAL APPROVAL
AUG. 10, 1981 - REVISED STEP AND ADAPTER DESIGN
MAR. 23, 1994 - ADDED STEP DETAIL
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
JAN3,2000 - CORRECTED TITLE AND MINOR EDITORIAL CHANGES

APPROVED

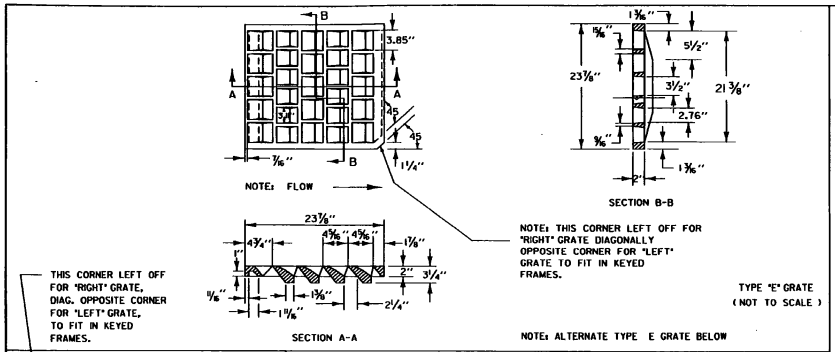
DIRECTOR OF PROJECT DEVELOPMENT

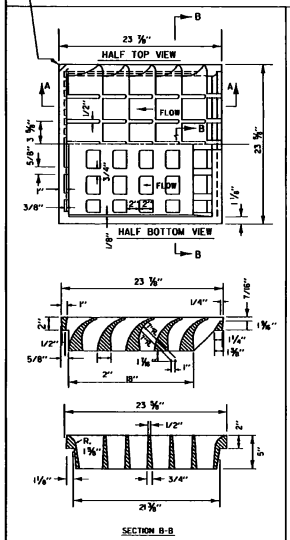
ROADWAY AND TRAFFIC DESIGN ENGINEER

CONCRETE CATCH BASIN

VERMONT AGENCY OF TRANSPORTATION

STANDARD D-13



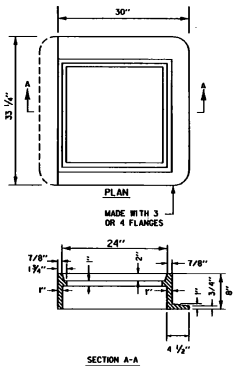


CAST IRON GRATE
TYPE E

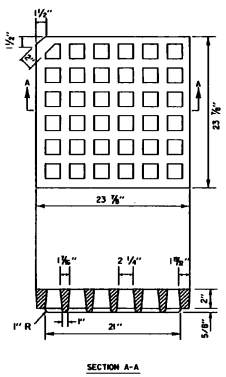
NOTE: THIS FRAME TO BE PLACED IN DROP INLET TOP BEFORE CONCRETE IS POURED.

4 FLANGES UNLESS OTHERWISE INDICATED.

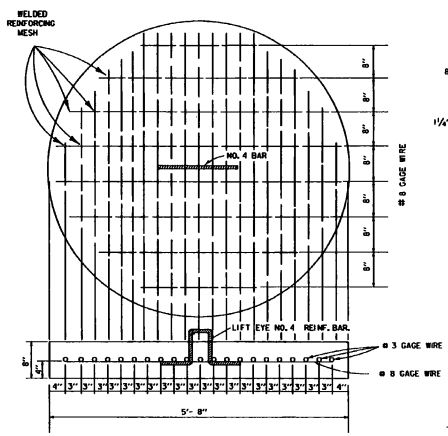
FRAMES TO BE FURNISHED WITH 3 FLANGES WHEN USED IN CONJUNCTION WITH CURB OR AS DIRECTED BY THE ENGINEER.



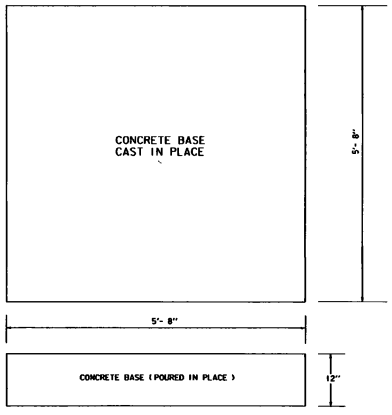
FRAME
FOR
TYPE D OR TYPE E
GRATE

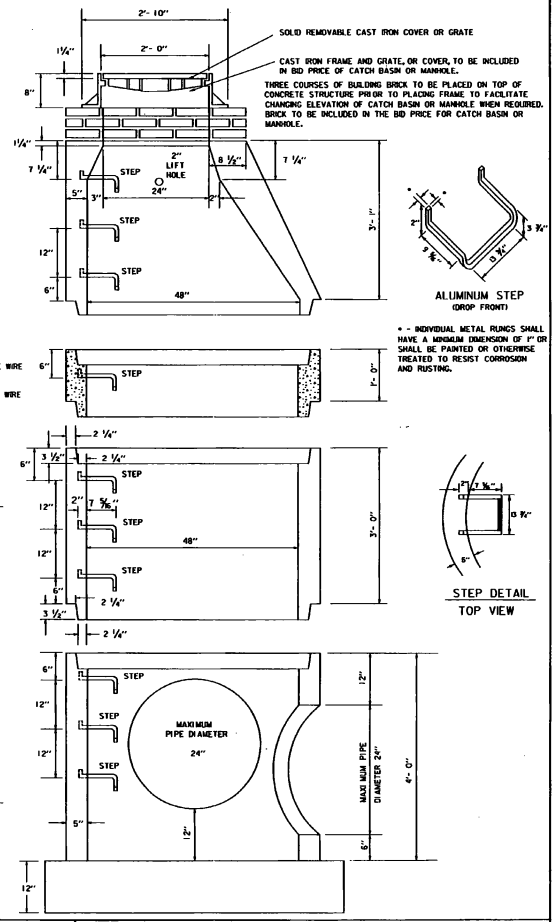


CAST IRON GRATE
TYPE D



PRECAST REINFORCED CONCRETE BASE





ALUMINIUM STEP
(DROP FRONT)

* - INDIVIDUAL METAL RUNGS SHALL HAVE A MINIMUM DIMENSION OF 1" OR SMALL BE PAINTED OR OTHERWISE TREATED TO RESIST CORROSION AND RUSTING.

STEP DETAIL
TOP VIEW

REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL
OCT. 22, 1976 - CAST IRON GRATE WITH FRAME, TYPE E ADDED
OCT. 6, 1978 - TYPE D GRATE ADDED
OCT. 30, 1985 - IMPERFECT TRENCH DETAILS DELETED
FEB. 17, 1993 - SECOND CAST IRON GRATE TYPE E ADDED.
MAR. 23, 1994 - ADDED NOTE FOR STEP DETAILS
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF ENGINEERING

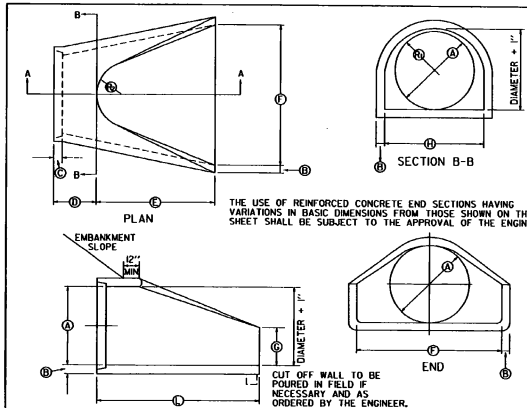
DESIGN ENGINEER

PRECAST REINFORCED CONCRETE CATCH BASIN W/ CAST IRON GRATE
PRECAST REINFORCED CONCRETE MANHOLE W/ CAST IRON COVER

CAST IRON GRATE WITH FRAME, TYPE D
CAST IRON GRATE WITH FRAME, TYPE E

VERMONT AGENCY OF TRANSPORTATION

STANDARD D-15

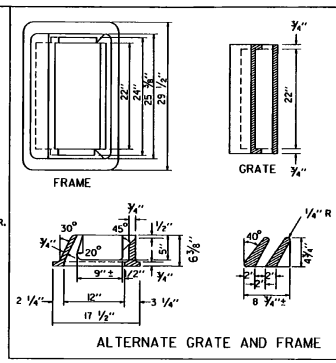


BASIC DIMENSIONS													
A	B	C	D	E	F	G	H	DIAM.+1"	SLOPE	R_1	R_2	RATIO *	L
12"	2"	SEE NOTE	48 3/8"	24"	24"	4"	19 3/8"	13"	2.7 :1	10 1/2"	9"	1.92	6'-0 3/8"
18"	2 1/2"		46"	27"	36"	9"	29"	19"	2.7 :1	15 1/2"	12"	1.88	8'-11"
24"	3"		30"	43 1/2"	48"	9 1/2"	33 3/8"	25"	2.8 :1	16 3/8"	14"	1.58	6'-11 1/2"
30"	3 1/2"		19 3/4"	54"	60"	12"	37"	31"	2.8 :1	18 1/2"	15"	1.41	6'-11 1/2"
36"	4"		34 1/4"	63"	72"	15"	47 1/8"	37"	2.9 :1	24 5/8"	20"	1.50	8'-11 1/2"
42"	4 1/2"		35"	63"	78"	21"	53 3/4"	43"	2.9 :1	27 1/2"	22"	1.46	8'-2"
48"	5"		26"	72"	87"	24"	59 1/2"	49"	2.9 :1	30"	22"	1.40	8'-2"

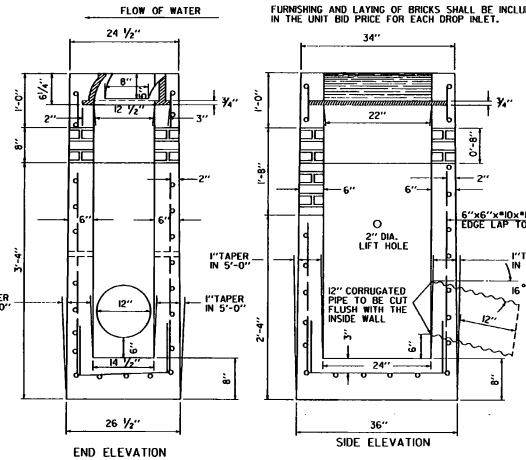
* AREA-1 = AREA OF NOMINAL DIAMETER
AREA-2 = AREA THRU SECTION B-B

NOTE: JOINTS SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT AS REQUIRED AND DIMENSIONS SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE SPECIFICATIONS.

REINFORCED CONCRETE PIPE END SECTION



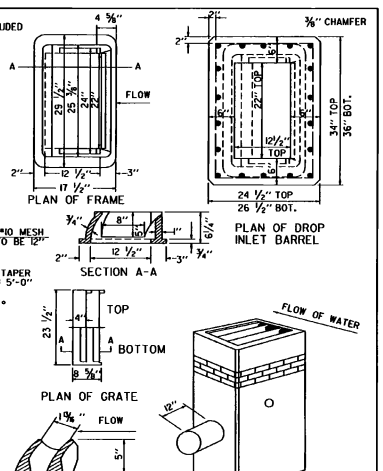
ALTERNATE GRATE AND FRAME

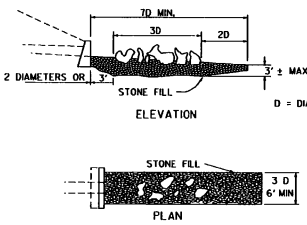


FURNISHING AND LAYING OF BRICKS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EACH DROP INLET.

ALLOW FOR 1'-8" OF BRICKS ON SIDE OPPOSITE OUTLET PIPE, 0'-8" BRICKS ON OTHER 3 SIDES.

PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE





FOR USE ONLY AT LOCATIONS OF VERY HIGH DISCHARGE AND ERODABLE SOIL CONDITIONS.

IRREGULAR COBBLES APPROXIMATING THE MAXIMUM SIZE FOR TYPE OF SPECIFIED STONE FILL TO BE PLACED IN GENERAL PATTERN AS SHOWN. NO STONE TO BE CLOSER THAN 2D TO OUTLET OF PIPE. STONES SHOULD NOT BE PLACED TO DAM FLOW, BUT TO INDUCE TURBULENCE AND REDUCE VELOCITY. PLAN MAY BE ADAPTED TO FIELD CONDITIONS PREVAILING AT OUTLET. WHERE FLOW IS TO ULTIMATELY FOLLOW TOE OF SLOPE, DESIGN MAY BE SHORTENED OR WIDENED TO ACT AS A STILLING BASIN, AND DIRECT FLOW INTO DITCH.

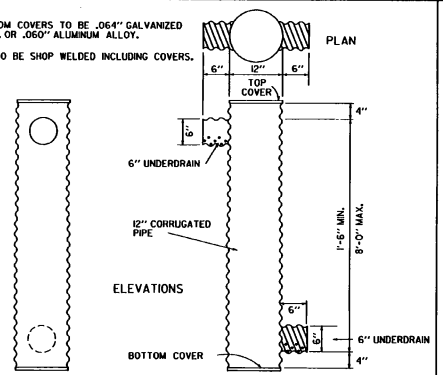
STONES FORMING BREAK SHOULD PROJECT ABOVE AND BELOW SURFACE OF STONE FILL APPROXIMATELY 1/4 THE DIAMETER OF THE PIPE.

STONE FILL TYPE TO BE SPECIFIED ON PLANS.

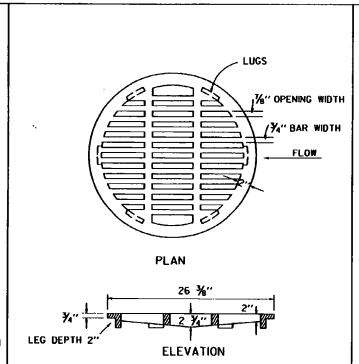
ENERGY DISSIPATOR FOR CULVERTS

TOP AND BOTTOM COVERS TO BE .064" GALVANIZED IRON OR STEEL, OR .060" ALUMINUM ALLOY.

ALL FITTINGS TO BE SHOP WELDED INCLUDING COVERS.

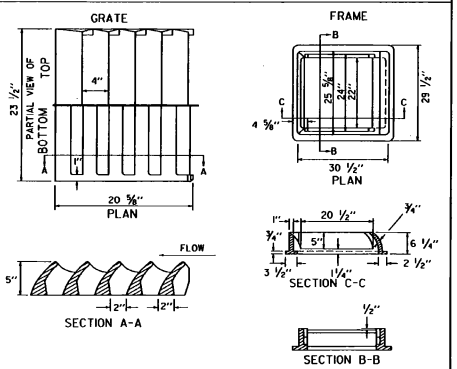


UNDERDRAIN RISER



CAST IRON GRATE, TYPE C

TO BE USED IN CONJUNCTION WITH 24" CORRUGATED STEEL PIPE



CAST IRON GRATE WITH FRAME, TYPE B

REVISIONS AND CORRECTIONS

DEC. 8, 1971 - ORIGINAL APPROVAL

NOV. 14, 1972 - RCP END SECTION DIMENSION VARIANCE NOTE ADDED

OCT. 30, 1985 - REVISED TO CONFORM WITH 1986 SPECIFICATIONS

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

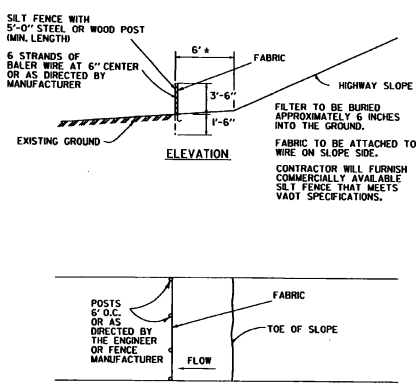
DIRECTOR OF ENGINEERING

DESIGN ENGINEER

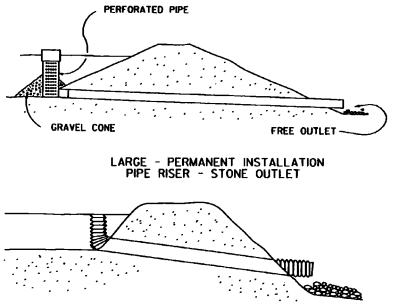
PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE
CAST IRON GRATE, TYPE B
CAST IRON GRATE, TYPE C
UNDERDRAIN RISER
REINFORCED CONCRETE PIPE END SECTION
ENERGY DISSIPATOR FOR CULVERT

VERMONT AGENCY OF TRANSPORTATION

STANDARD D-16



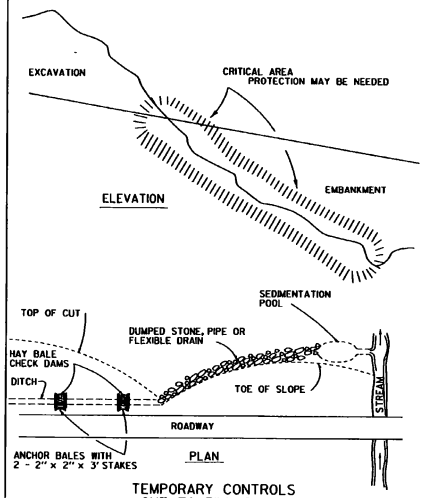
SILT FENCE



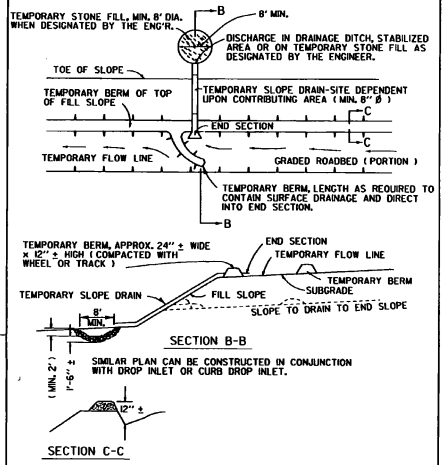
LARGE - PERMANENT INSTALLATION
PIPE RISER - STONE OUTLET

SMALL - TEMPORARY INSTALLATION
ACCM PIPE WITH RISER - STONE OUTLET

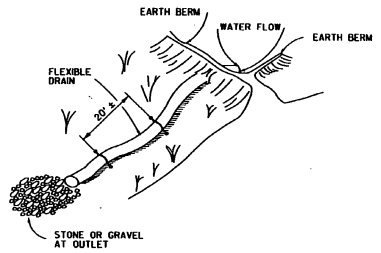
SEDIMENT DAMS



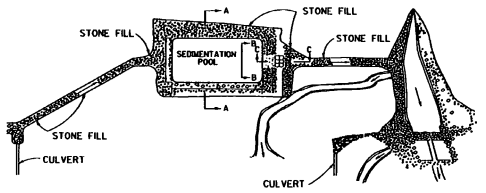
TEMPORARY CONTROLS
CUT TO FILL SLOPE



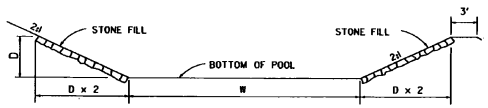
TEMPORARY BERMS AND SLOPE DRAINS
FOR FILL SLOPES



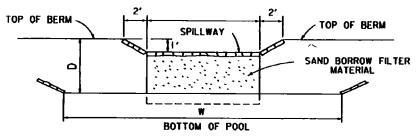
TEMPORARY FLEXIBLE SLOPE DRAIN



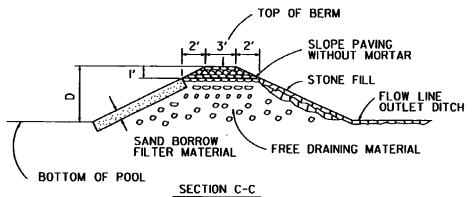
SEDIMENTATION POOL



SECTION A-A



DETAILS OF SPILLWAY TO BE DETERMINED BY HYDRAULIC SECTION.
SECTION B-B



SECTION C-C

REVISIONS AND CORRECTIONS

JUL. 5, 1972 - ORIGINAL APPROVAL
JUN. 14, 1973 - SEDIMENT TRAPS REMOVED FROM TEMPORARY BERMS & SLOPE DRAINS FOR FILL SLOPES
FEB. 26, 1976 - SILT FENCE ADDED
DEC. 7, 1976 - HAY BALE ANCHOR NOTE ADDED
JUN. 1, 1994 - SILT FENCE NOTES AND DIMENSIONS CHANGED

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

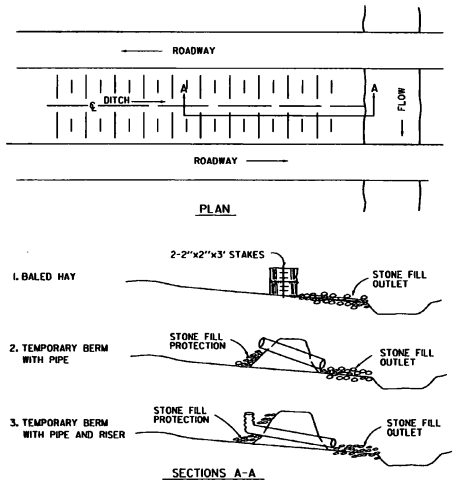
DIRECTOR OF ENGINEERING

DESIGN ENGINEER

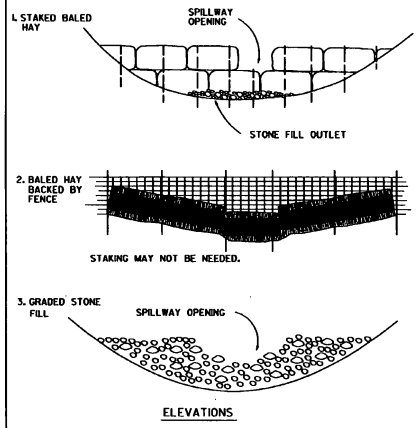
TEMPORARY EROSION CONTROL DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
T-1

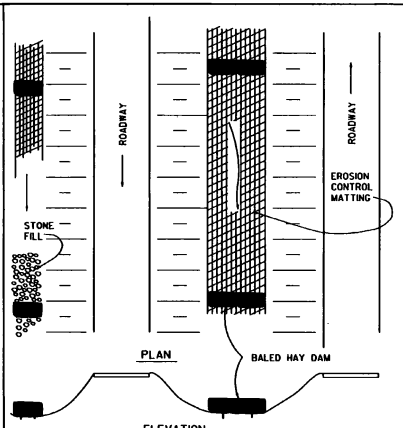


PROTECTION AT STREAM CROSSING
MEDIAN AND SIDE DITCHES

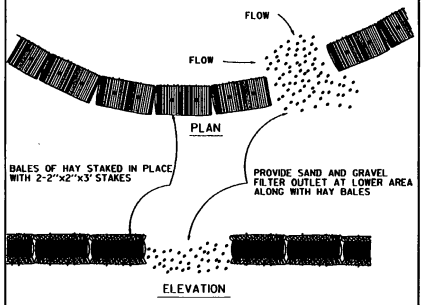


TYPES OF TEMPORARY DAMS

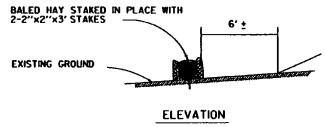
DAM SHOULD EXTEND FAR ENOUGH UP DITCH SIDE SLOPES TO EFFECTIVELY POND THE RUNOFF AND PREVENT EROSION AND WASHOUT.

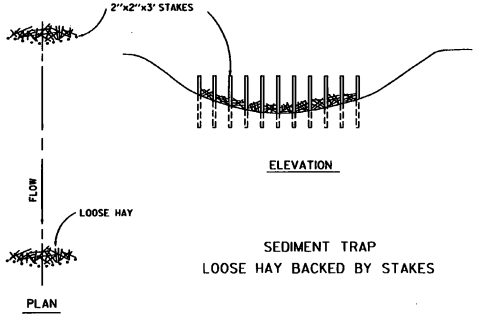


BALED HAY DAMS USED IN DITCHES

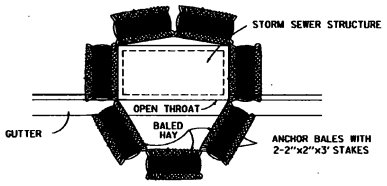


BALED HAY DAMS ALONG TOE OF SLOPE

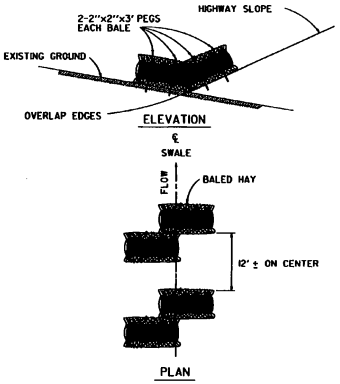




SEDIMENT TRAP
LOOSE HAY BACKED BY STAKES

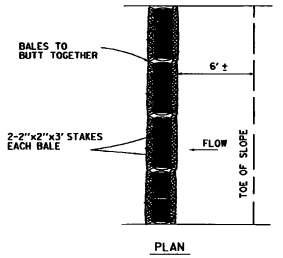


INLET PROTECTION
TEMPORARY BARRIER - HAY BALES



TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES IN TOWARD THE EMBANKMENT. BALES WILL BE ALLOWED TO ROT IN PLACE.

BALED HAY EROSION CHECKS



TO BE USED WHERE THE EXISTING GROUND SLOPES AWAY FROM THE HIGHWAY EMBANKMENT.

BALED HAY EROSION CHECKS

REVISIONS AND CORRECTIONS

JUL. 5, 1972 - ORIGINAL APPROVAL

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

DIRECTOR OF ENGINEERING

DESIGN ENGINEER

TEMPORARY EROSION CONTROL DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
T-2