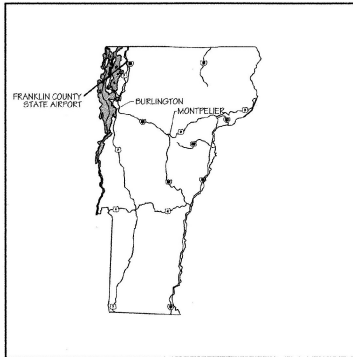


# FRANKLIN COUNTY STATE AIRPORT HIGHGATE, VERMONT

## PROPOSED IMPROVEMENTS TO INCLUDE INSTALLATION OF AUTOMATED WEATHER OBSERVATION STATIONS (AWOS)

FRANKLIN AIR 04-3144 C/1



LOCATION MAP

| SHEET                  | TITLE                                                |
|------------------------|------------------------------------------------------|
| 1                      | TITLE SHEET                                          |
| 2                      | QUANTITIES, PHASING NOTES, MISC DETAILS              |
| 3                      | CONSTRUCTION AND SAFETY NOTES                        |
| 4                      | AWOS SITE PLAN                                       |
| 5                      | SITE LAYOUT PLAN                                     |
| 6                      | ELECTRICAL DETAILS                                   |
| 7                      | FOUNDATION LAYOUT PLAN                               |
| 9                      | MAIN SENSOR SUITE FOUNDATION                         |
| 10                     | 10-METER WIND TOWER FOUNDATION                       |
| 10                     | 10-METER WIND TOWER WITH WIND SENSOR<br>INSTALLATION |
| 11                     | CENTRAL DATA PROCESSING STATION                      |
| VAOT STANDARD DRAWINGS |                                                      |
| 1                      | EROSION CONTROL DETAILS T-1                          |
| 2                      | EROSION CONTROL DETAILS T-2                          |
| 3                      | DRIVE GATE FOR WOVEN WIRE FENCE F-1                  |
| 4                      | CHAIN LINK FENCE (TYPE I) F-2                        |
| 5                      | CHAIN LINK FENCE (TYPE II) F-3                       |
| 6                      | CHAIN LINK FENCE (TYPE III) F-4                      |

INDEX OF SHEETS

### RECORD PLANS

CONTRACTOR: NECCO INC. WAITSFIELD, VT.

RESIDENT ENGINEER: D. WARNER

CONSTRUCTION BEGAN:

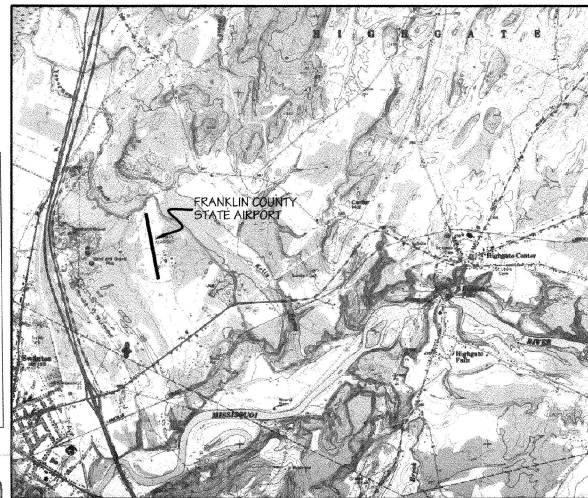
CONSTRUCTION COMPLETE: NOVEMBER 5, 2001

RECORD PLANS BY: R. RICHET

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

*D. Warner* RESIDENT ENGINEER  
DATE *5/17/01*

NOTE: Any further information concerning final quantities, amounts or other details  
relative to this project may be found on microfilm in Central Files.



FRANKLIN COUNTY STATE AIRPORT LOCATION MAP

BUILT AS DESIGNED

THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT  
FAA STANDARDS IDENTIFIED IN F.A.R. PART 152.

*James H. Tamm* 5/17/01  
DESIGN ENGINEER DATE

DUFRESNE-HENRY, INC.  
SUBMITTED BY *James H. Tamm*  
SENIOR PROJECT MANAGER

DATE *5/17/01*

VERMONT AGENCY OF TRANSPORTATION  
APPROVED BY *David C. Allen*  
DIRECTOR, MAINTENANCE & AVIATION DIVISION

DATE *5/17/01*

OFFICES:  
No. Springfield, Vermont  
Montpelier, Vermont  
St. Albans, Vermont  
Champlain, New Hampshire  
Rutland, New Hampshire  
Presque Isle, Maine  
Northford, Massachusetts  
Greenfield, Massachusetts  
Boston, Massachusetts  
Port Charlotte, Florida  
Sarasota, Florida  
Newburgh, New York  
Roxbury, New York  
Rochester, New York  
Saratoga Springs, New York

ENGINEERING DISCIPLINES  
Civil  
Electrical  
Environmental  
Industrial  
Mechanical  
Soil Waste  
Structural  
Transportation

ASSOCIATED DISCIPLINES  
Construction Management  
Site Assessment  
Surveying  
Weather/Forecast Operations

LANDSCAPE ARCHITECTURE  
Public Involvement Strategies  
Market & Trend Report Analysis  
Waterfront Master Planning  
Urban Planning & Design  
Pavement Management Planning  
Local, State and Federal Permitting

APPLIED SCIENCES  
Geologic  
Hydrologic  
Water Quality

**DH**  
**Dufresne-Henry**

Saratoga Springs, NY 12866  
Tel. (518) 587-3415 | FAX (518) 581-1294  
<http://www.dufresne-henry.com>

**DH**  
**Dufresne-Henry**  
Saratoga Springs, New York  
Tel. (518) 587-3415  
[www.dufresne-henry.com](http://www.dufresne-henry.com)

| Rev | By | Date | Description |
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AWOS INSTALLATION  
FRANKLIN AIR 04-3144 C/1  
FRANKLIN COUNTY STATE AIRPORT  
AWOS INSTALLATION

HIGHGATE



|                |          |
|----------------|----------|
| Project No.    | 610006   |
| Proj. Manager  | AVT      |
| Proj. Designer | CAF      |
| Checked By     | CAF      |
| Scale          | NTS      |
| Approved       | MC       |
| Date           | 04-25-01 |

### QUANTITIES

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE; AND SHALL HAVE THEM INSPECTED BY THE VERMONT DEPARTMENT OF TRANSPORTATION (VTDOT) ENGINEER. EROSION AND SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR MUST OBTAIN PRIOR APPROVAL FOR CHANGES TO THE SEDIMENT CONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION.
2. ALL EROSION CONTROL SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED.
3. THE CONTRACTOR SHALL APPLY SEED AND MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN 481 HOURS (FIFTEEN (15) DAYS) OF FINAL DISTURBANCE.
4. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE VERMONT DEPARTMENT OF TRANSPORTATION (VTDOT) ENGINEER'S "CONSTRUCTION SITES" AS PUBLISHED BY THE VERMONT GEOLOGICAL SURVEY.
5. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE RESPONSIBILITIES, IF REQUIRED, TO THE VERMONT AGENCY OF TRANSPORTATION (VADOT).
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY (30) CALENDAR DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PLACED IN A TRUCK OR TRAILER TO PREVENT IT FROM BEING DISPOSED IN THE ENVIRONMENT.
7. EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE AT THE END OF THE DAY OR DURING INCLEMENT WEATHER AS DIRECTED BY THE ENGINEER.
8. IF APPLICABLE, STREAMS INCLUDING BEDS AND BANKS SHALL BE STABILIZED IMMEDIATELY AFTER CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED.
9. NO SOIL, ROCK DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SIP, OR ERODE INTO A WATER RESOURCE UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE ENGINEER, AND WHEN AUTHORIZED, SUCH DUMPING OR PLACING SHALL BE LIMITED TO THE FOLLOWING: BUT NOT LIMITED TO, CONSTRUCTION OF BIRDS, CULVERTS, AND EROSION CONTROL STRUCTURES.
10. PERMANENT SEEDING SHALL BE DONE BETWEEN APRIL 30 AND SEPTEMBER 15. IF SEEDING IS DONE AT OTHER TIMES, IT SHALL BE CLASSIFIED AS "TEMPORARY SEEDING". PERMANENT SEED SHALL BE PLACED TO THE SEEDING METHOD STATED IN THE SPECIFICATIONS. TEMPORARY AND PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING PLACED AT RATES IN ACCORDANCE WITH THE SPECIFICATIONS. PERMANENT SEEDING AND MULCHING SHALL BE PAID FOR BY THE CONTRACTOR. PERMANENT SEEDING SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR TEMPORARY SEEDING OR MULCHING.
11. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY THE CONTRACTOR. THE EXISTING DRAINAGE PATTERN SHALL BE MAINTAINED BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWN THE SLOPE WITHOUT CAUSING EROSION. DICES SHALL BE PLACED AT THE TOE OF THE SLOPE TO PROMOTE STABILIZATION. FERTILIZER SHALL BE PLACED IN THE AREA TO BE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE STEADY FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF EROSION TO PREVENT EROSION UNTIL SUCH TIME AS THEY ARE REMOVED.
12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS IN UNPAVED AREAS SHALL BE STABILIZED AND PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC OR PRIVATE ROADWAYS.
13. IF PUBLIC OR PRIVATE ROADWAYS DO ACCUMULATE DEBRIS, THE CONTRACTOR SHALL USE A POWER BROOM TO REMOVE THE SEDIMENT TO THE SATISFACTION OF THE ENGINEER.
14. SALVAGED TOPSOIL WILL BE PLACED ON WELL DRAINED LAND AWAY FROM STREAMS IN ACCORDANCE WITH APPROVED EROSION AND SEDIMENT CONTROL MEASURES. IT SHALL BE PLACED IN NEAT PILES. THE CONTRACTOR WILL PROVIDE A SUFFICIENT QUANTITY OF FERTILIZER TO THE PERIMETER OF THE STOCKPILE. AT THE COMPLETION OF CONSTRUCTION, THE ENGINEER MAY CONSIDER AN EARTH DICE IN LIEU OF SILT FENCE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST RISING FROM CONSTRUCTION OPERATIONS. DUST CONTROL, USING WATER, 60% TO 100% WILL BE APPLIED WHENEVER DUST IS A PROBLEM OR WHEN

PHASING NOTES:

## GENERAL

All work to be completed within Phase I, and II.

All work must comply with the requirements of FAA AC 150/5370-2C, Operational Safety During Construction. See General Construction and Safety Notes for additional information.

The contractor must submit a schedule to the Engineer prior to commencing work on the airport. This schedule is to be upgraded weekly. No work will be allowed outside the areas included in the approved schedule.

## PHASE I

All work on Phase I to be completed with 45 calendar days of notice to proceed.

Runway 1-19 is to be opened at all times during the project except as required to install underground utilities. No work shall be allowed within the Runway 1-19 primary surface without authorization from the Engineer. Work within the Runway 1-19 primary surface will require that the runway be closed. At least 48 hours notice is required prior to closing the runway.

**CONSTRUCTION INCLUDES:**

Installation of underground utilities to provide 30A 120V/240V power for the AWOS, improve and expand existing farm road to the AWOS, clear and grub in areas shown and clear only in areas shown, construct concrete structures to support 30' AWOS wind sensor tower and AWOS components, install AWOS system and appurtenances, install AWOS data link from sensor site to terminal/hangar building using UHF radio link. Install central data platform and VHF antenna at terminal/hangar building.

## PHASE II

All work on Phase II to be completed with 30 calendar days of notice to proceed.

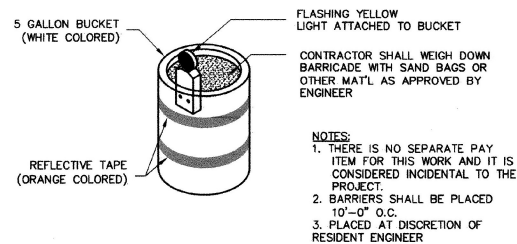
Runway 1-19 is to be opened at all times during the project. No work shall be allowed within the Runway 1-19 primary surface without authorization from the Engineer.

**CONSTRUCTION INCLUDES:**

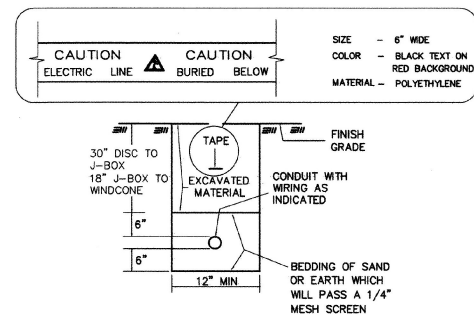
### Testing, calibration, and certification of the AWOS system.

**SPECIAL NOTE:**

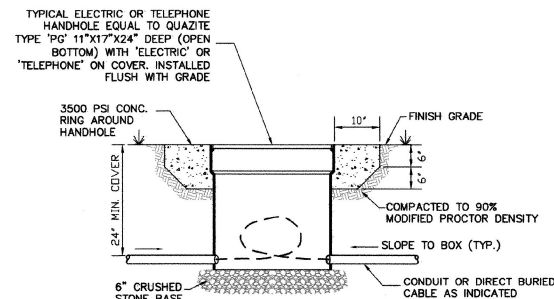
The Contractor's attention is drawn to the single and double hatched areas within the inner AWOS Critical Area depicted on Sheet 4. Prior to any earth disturbance, the contractor shall mark flag and fence the outer limit of the area to be cut and stumped (single hatching). No removal of stumps is to take place in the area which is double hatched; trees are to be clear cut only in this area. No clearing or any type of disturbance may occur immediately north of the double hatched area as this area is archeologically sensitive.



 TYPICAL SAFETY BARRICADE  
NOT TO SCALE




TYPICAL CONDUIT TRENCH SECTION  
 NOT TO SCALE




 TYPICAL HAND-HOLE DETAIL  
 NOT TO SCALE





| LEGEND                           | EXISTING |
|----------------------------------|----------|
| GROUND CONTOUR                   | ---      |
| AIRPORT PROPERTY                 | ---      |
| OBSTACLE FREE AREA (OFA)         | ---      |
| TREE LINE                        | ---      |
| SECURITY FENCE                   | ---      |
| SWALE/DITCH                      | ---      |
| R/W END IDENTIFIER LIGHTS (DEEL) | ---      |
| WETLAND BOUNDARY                 | ---      |
| UNIMPROVED ROADWAYS              | ---      |
| PAVEMENT                         | ---      |

| EXISTING | BUILDINGS                             |
|----------|---------------------------------------|
| ①        | T-Hanger 10 Units                     |
| ②        | 48' x 48' Hanger (Under Construction) |
| ③        | Hanger 3 Units Each                   |
| ④        | T-Hangers                             |
| ⑤        | GA Hanger                             |
| ⑥        | Hanger 3 Units                        |
| ⑦        | Hanger                                |
| ⑧        | Prestige Paint Shop Hanger            |
| ⑨        | Storage Building                      |
| ⑩        | Terminal / Hanger                     |
| ⑪        | T-Hanger                              |
| ⑫        | T-Hangers                             |
| EXISTING | TERMINAL AREA PAVEMENT                |
| ⑬        | Main Apron                            |
| ⑭        | Fuel Apron                            |
| ⑮        | South Apron                           |
| ⑯        | Auto Parking                          |

AWOS TOWER  
COORDINATES  
NORTH 890379.76  
EAST 1485135.50

AWOS TOWER  
COORDINATES  
NORTH 44°56'27.94919"  
WEST 73°05'58.89799"

IRON ROD 1  
3/8" IR  
NORTH 890094.70  
EAST 1485197.75  
ELEV 227.38

IRON ROD 2  
3/8" IR  
NORTH 890484.32  
EAST 1485128.36  
ELEV 228.76

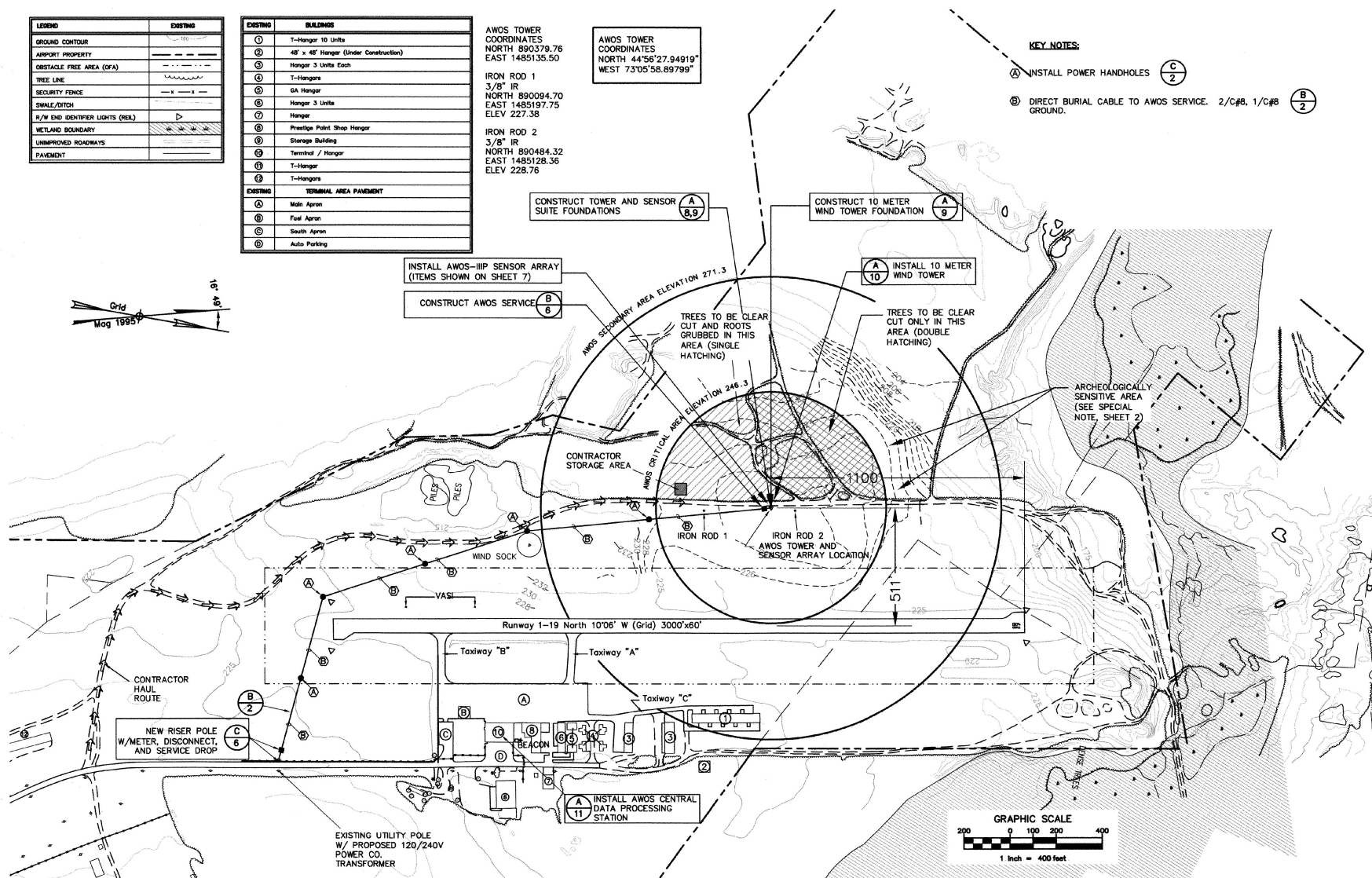
# KEY NOTES:

① INSTALL POWER HANDHOLES

②

③ DIRECT BURIAL CABLE TO AWOS SERVICE. 2/C#8, 1/C#8

④



## NOTES:

1. Horizontal Datum NAD 83 (1986) International Feet.
2. Vertical Datum NAVD 88 International Feet.
3. Existing easement & property lines based on "Airport Property Map" prepared for VAOT by Clough Harbour Associates March 1999.



| Rev. | Description | By | Date |
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VERMONT

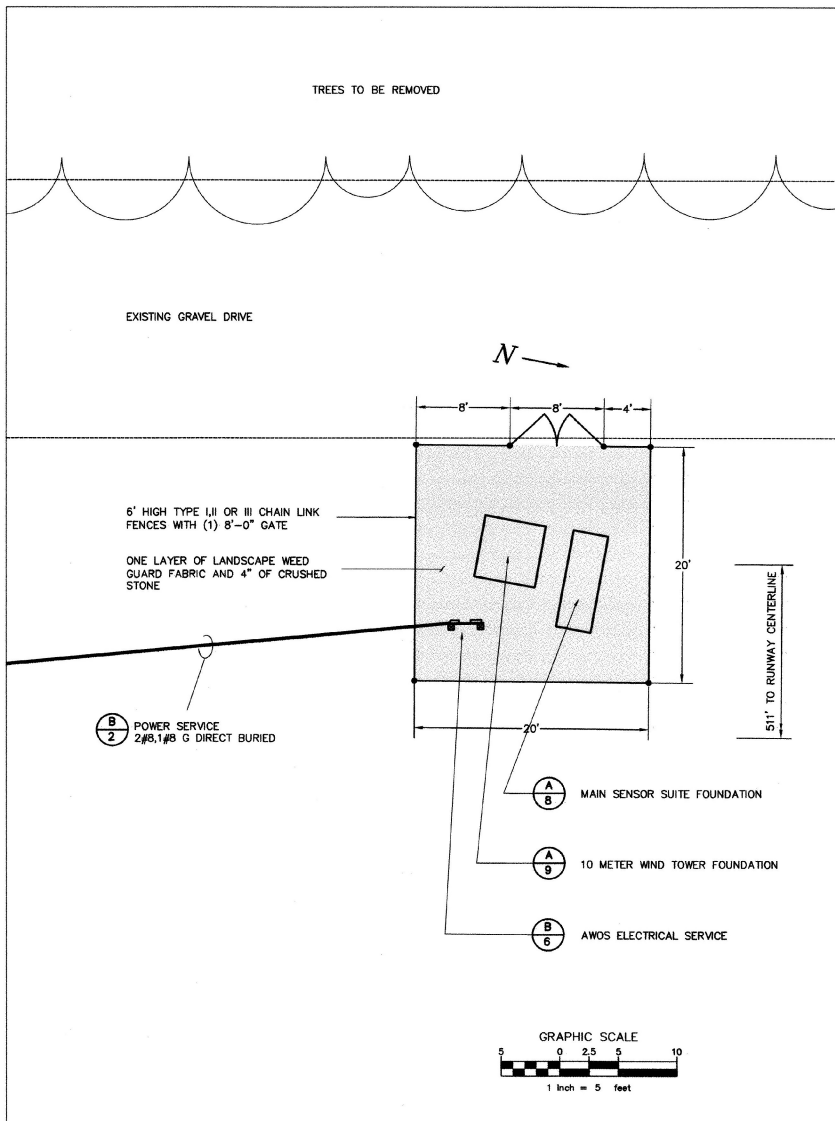
AWOS INSTALLATION  
FRANKLIN COUNTY STATE AIRPORT  
FRANKLIN COUNTY STATE AIRPORT  
AWOS SITE PLAN

HIGHGATE



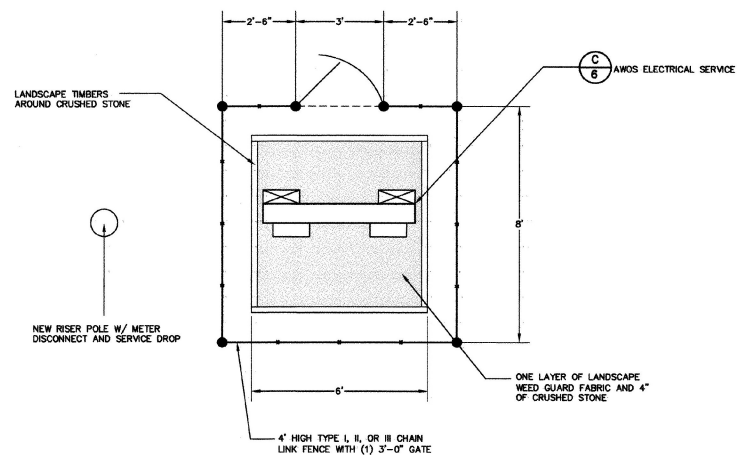
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|----------------|----------|
| Project No.    | 610006   |
| Proj. Manager  | JMT      |
| Proj. Engineer | JMT      |
| Drawn By       | WCF      |
| Scale          | AS SHOWN |
| Status         | MC       |
| Date           | 05-24-01 |

4



**A**  
5 AWOS TOWER AND SENSOR ARRAY LOCATION SITE LAYOUT DETAIL  
SCALE = 1"=5'

AIRPORT ACCESS ROAD



**B**  
5 AWOS SERVICE DROP SITE LAYOUT DETAIL  
SCALE = 1"=2'

| Rev. | Description | By | Date |
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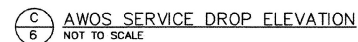
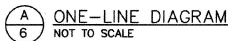
VERMONT

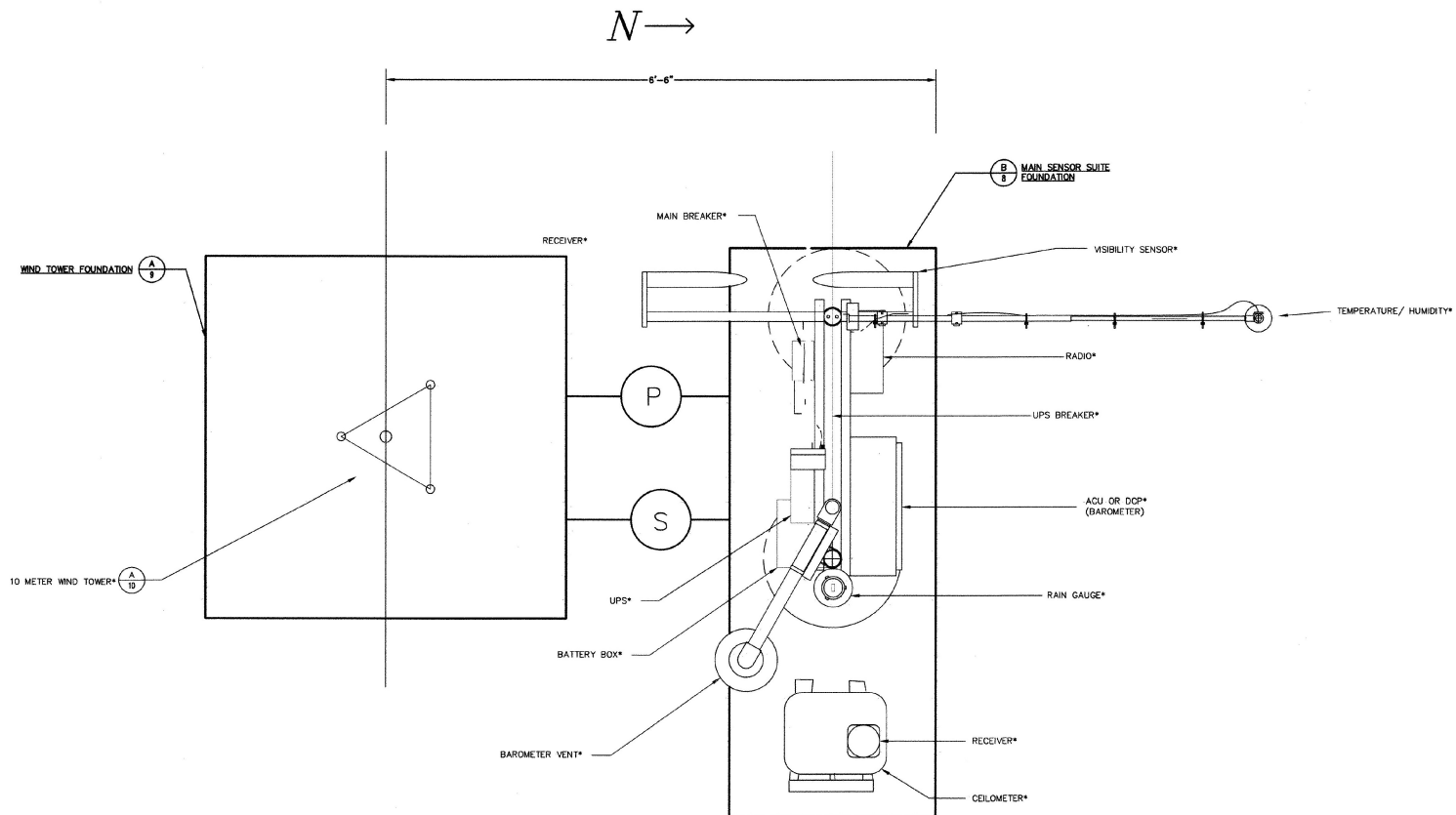
AWOS INSTALLATION  
FRANKLIN AIR 04-3144 C1  
**FRANKLIN COUNTY STATE AIRPORT**  
**SITE LAYOUT PLAN**

HIGHGATE



|                |         |
|----------------|---------|
| Project No.    | 610006  |
| Proj. Manager  | ANT     |
| Proj. Designer | ANT     |
| Drawn By       | DM      |
| Checked By     | MS      |
| Scale          | N/A     |
| Sheet          | 04-3144 |
| Date           | 06-2-21 |





**A**  
**7** FOUNDATION LAYOUT PLAN  
NOT TO SCALE

| Rev | Description | By | Date |
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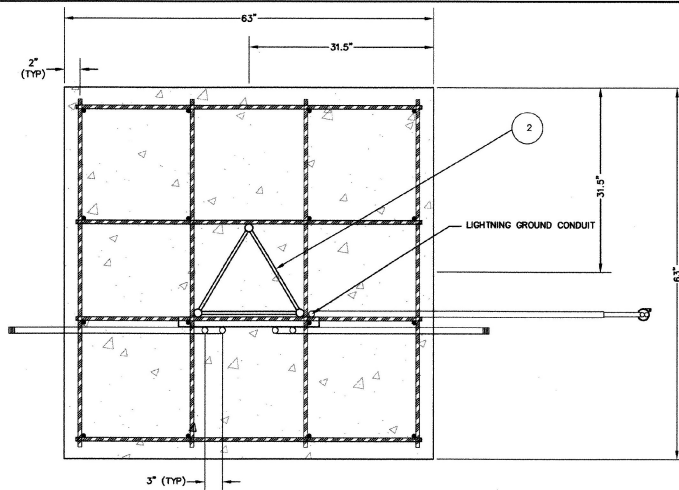


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|----------------|----------|
| Project No.    | 618006   |
| Proj. Manager  | ANT      |
| Proj. Designer | ANT      |
| Client Rep.    | DMF      |
| Drawn By       | ANT      |
| Checked By     | ANT      |
| Approved       | MC       |
| Date           | 06-27-01 |





NORTH

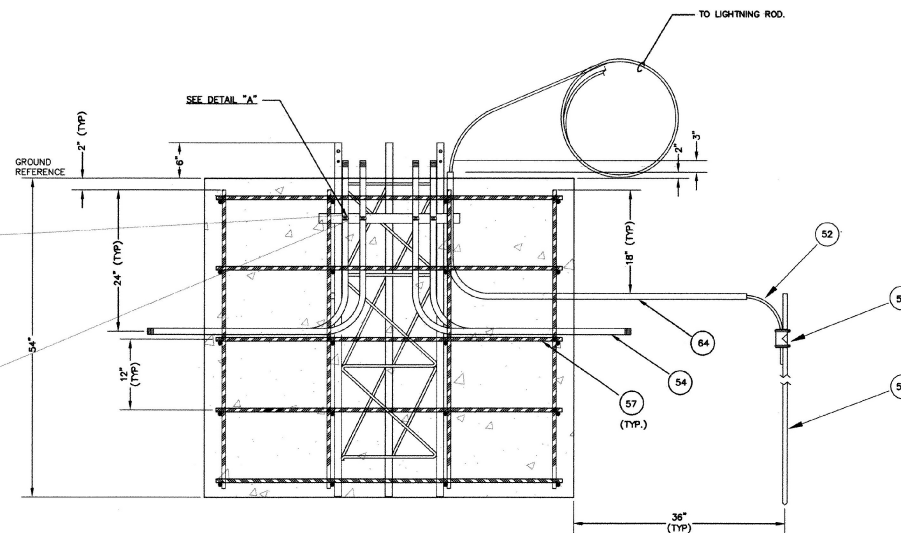


PLAN VIEW

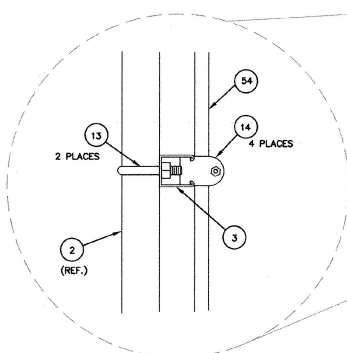
- NOTES
1. ALL DIMENSIONS IN ENGLISH (INCHES) UNLESS SPECIFIED OTHERWISE.
  2. PULL STRINGS SHALL BE PLACED IN ALL CONDUIT.
  3. FOUNDATION SIZE AND DEPTH BASED ON SOIL CONDITION OF A CBR 4.0.
  4. CONCRETE SHALL BE MINIMUM OF 3000 PSI @ 28 DAYS.
  5. CONDUIT SHALL EXIT FOUNDATION IN DIRECTION REQUIRED PER SITE.
  6. FOUNDATION SHALL BE LEVEL AND PLUMB.
  7. TOWER AND CONDUIT SHALL BE PLUMB.
  8. SEAL TOWER AND CONDUIT ENDS TO PREVENT WATER ENTRY UNTIL SYSTEM INSTALLATION.
  9. TOLERANCE =  $\pm 0.38"$ .

| Items To Be Supplied by Contractor |                                   |                                               |                   |
|------------------------------------|-----------------------------------|-----------------------------------------------|-------------------|
| Item                               | Description                       | Recommended Manufacturer Name and Part Number | Quantity Required |
| 50                                 | Ground Rod, 3/4" DIA              | Robbins #9710                                 | 2 EA              |
| 51                                 | Ground Clamp                      | Robbins #910                                  | 2 EA              |
| 52                                 | Ground Wire, 2/0 Copper           | Robb #CW 2/0S1                                | 40 Ft             |
| 54                                 | Rigid Galv. St. Conduit, 3/4" DIA | Allied #RIGID 3/4"                            | As Required       |
| 57                                 | Reinforced Steel Bar 15M          | Parker Steel International #4                 | 258 Ft            |
| 64                                 | Nonmetallic Tubing 3/4"           | Carllex #15107                                | 10 Ft             |

| Items Supplied by Velsco Inc., Artals Division |          |                                   |         |
|------------------------------------------------|----------|-----------------------------------|---------|
| Item                                           | Part No. | Description                       | QTY/U/M |
| 2                                              | 72-21957 | Tower Base Short 5' (18")         | 1 EA    |
| 3                                              | 51-22371 | Strut, 24" Cut                    | 1 EA    |
| 13                                             | 45-21271 | U-Bolt 1"x3.75" Overall Length SS | 2 EA    |
| 14                                             | 45-21378 | Clamp, Pipe 3/4 GRC and IMC       | 4 EA    |



FRONT ELEVATION



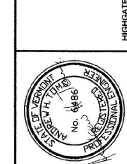
DETAIL "A"

**10 METER WIND TOWER FOUNDATION**  
NOT TO SCALE



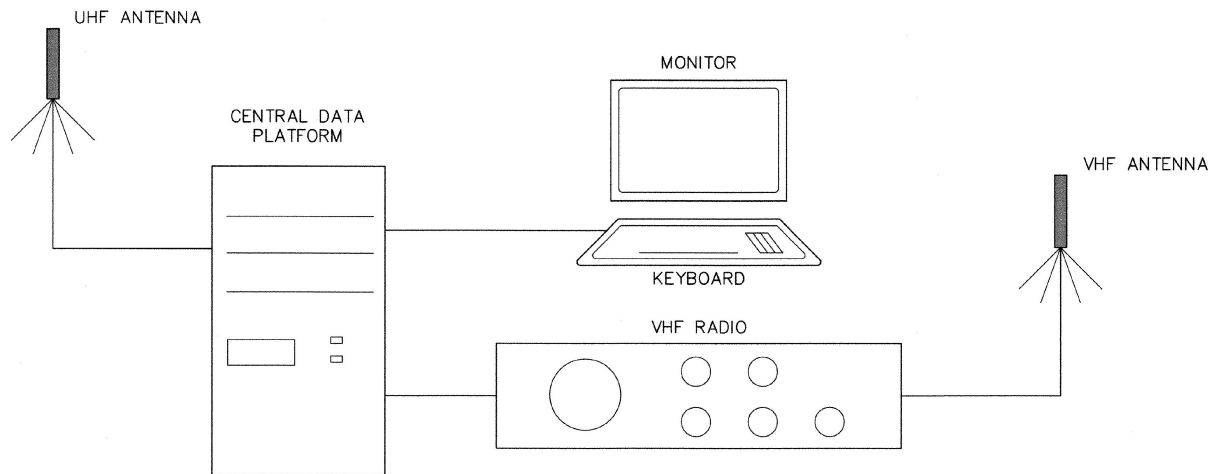
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AWOS INSTALLATION  
FRANKLIN AIR 04-3144 C1  
**FRANKLIN COUNTY STATE AIRPORT**  
**10-METER WIND TOWER FOUNDATION**



|                |          |
|----------------|----------|
| Project No.    | 819006   |
| Proj. Manager  | ART      |
| Proj. Designer | ART      |
| Drawn By       | CMR      |
| Checked By     | MC       |
| Approved By    | MC       |
| Date           | 06-01-01 |





NOTES:

- 1) THE UHF AND VHF ANTENNA ARE TO BE INSTALLED ON THE ROOF OF THE TERMINAL/HANGAR BUILDING (LOCATION @ SHEET 4). EXACT LOCATION TO BE ADVISED BY THE ENGINEER.
- 2) CENTRAL DATA PROCESSING STATION HARDWARE, INCLUDING CENTRAL DATA PLATFORM, VHF RADIO, KEYBOARD, MONITOR, ETC. WILL BE LOCATED IN THE ADMINISTRATIVE AREA OF THE TERMINAL/HANGAR BUILDING. EXACT LOCATIONS WILL BE ADVISED BY THE AIRPORT MANAGER TO SUIT HIS REQUIREMENTS.
- 3) ALL CENTRAL DATA PROCESSING STATION ITEMS, INCLUDING VHF AND UHF ANTENNAS, WILL BE SUPPLIED BY VAISALA, INC.

A  
11

AWOS CENTRAL DATA PROCESSING STATION SYSTEM SCHEMATIC  
NOT TO SCALE

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AWOS INSTALLATION  
FRANKLIN AIR 04-114-011  
**FRANKLIN COUNTY STATE AIRPORT**  
**CENTRAL DATA PROCESSING STATION**  
VERMONT  
HIGHGATE



|                |          |
|----------------|----------|
| Project No.    | 610006   |
| Proj. Manager  | AKF      |
| Proj. Engineer | AKF      |
| Checked By     | AKF      |
| Drawn By       | AKF      |
| Scale          | N/A      |
| Approved       | AKF      |
| Date           | 05-27-01 |

11