

Note: This is a SAMPLE Template ONLY. The ESS network and contact information are fictitious and used solely for illustrative purposes.

***Clarus* Multi-state Regional Demonstration
Connection Incentive Program (CIP) Application
Technical Plan**

Section 1: Applicant Details

a. Contributing Transportation Agency Name

AnyState Department of Transportation (AnyDOT)
Rural Route 130
Mytown, AnyState 99999

b. Contact Name

Main PoC: Joe Snowstorm, State Maintenance Supervisor
JSnowstorm@state.any.us, 999-555-1223
Communications PoC: Fred Engineer, State ITS Supervisor
FEngineer@state.any.us, 999-555-1257

Section 2: ESS Network Details

- a. **Number of participating ESS:** 11 which is the entire ESS network. See figure 1 for a state map.
- b. **Sample File:** We use an XYZ RWIS data server to access our ESS. There will be two files available: one for atmospheric observations and one for surface observations. See figure 2 for a sample of a text-based, comma-delimited file with atmospheric observations.
- c. **Polling Frequency:** During the summer, we poll the ESS every hour. During the winter, we poll every 20 minutes.
- d. **Data Transfer Method:** We can compile two text-based files and place them on our server every 20 minutes. The server is behind a firewall and our security/ITS personnel will have to provide password access for your FTP pull.

Section 3: Implementation Details

- a. **Data Exchange:** AnyDOT will allow access to our ESS server so that our ESS data can be processed by *Clarus*.
- b. **Assuring Network Communications:** We will make our State ITS Supervisor available to assure access to our ESS server.
- c. **Data Distribution:** AnyDOT will allow for all ESS data to be made available to the greater community except for chemical concentration and freeze point data.
- d. **Metadata**
 - A member of the AnyDOT maintenance division will be assigned to visit the ESS sites in the state during September and October to collect both geographic and instrument-related metadata as shown on the *Clarus* critical metadata sheet (found on www.clarusinitiative.org).
 - AnyDOT does not have a weather service provider to compile climate information, but we will work with the *Clarus* system administrator to set this up.
 - We have not seen the *Clarus* quality checking reports. However, once AnyDOT data are processed in *Clarus*, we will work with the *Clarus* system administrator to provide feedback on the quality checking reports.
 - We plan on participating in the first available CIP Webcast.

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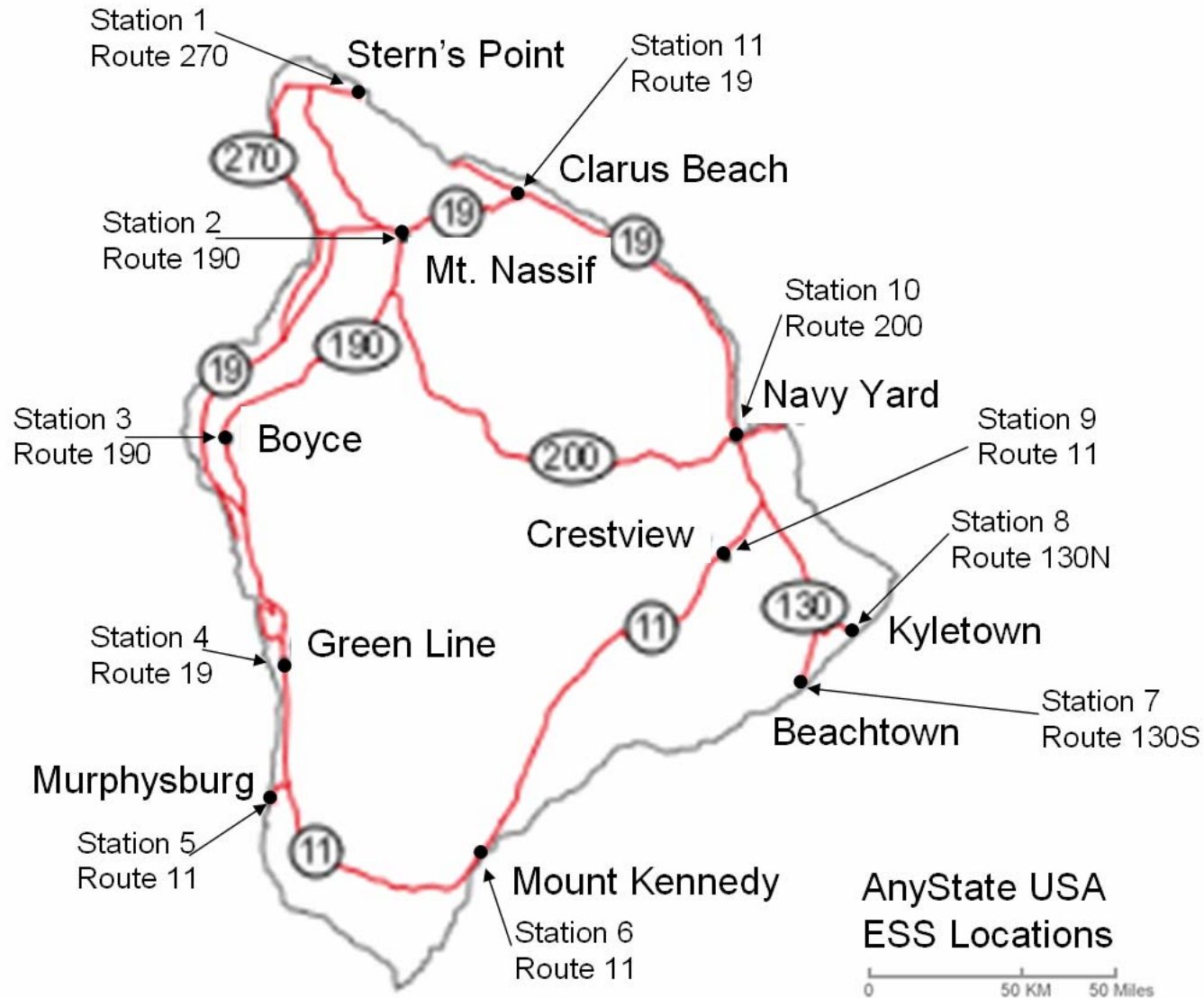


Figure 1: AnyDOT Statewide ESS Deployment Map

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```
sysid,Rpuid,Senid,DtTm,AirTemp,Dewpoint,Rh,SpdAvg,SpdGust,DirMin,DirAvg,DirMax,Pressure,PcIntens,PcType,PcRate,Pc10Min,Visibility,Pc1Hr,Pc3Hr,Pc6Hr,Pc12Hr,Pc24Hr,Height,snowdepth,,
351,1,0,03/27/07 16:13,-2080,-2210,89,1,3,,220,220,65535,None,None,-1,-1,-1,-1,-1,-1,-1,2147483643,,
351,2,0,03/27/07 16:31,-880,-1060,87,12,15,,275,280,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,3,0,03/27/07 16:31,-1210,-1520,78,7,19,,50,59,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,4,0,03/27/07 16:20,-2120,-2290,86,3,6,,110,165,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,5,0,03/27/07 16:33,-1220,-1820,61,2,8,,35,350,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,6,0,03/27/07 16:05,-870,-1080,84,3,6,,325,318,65535,Other,Other,-1,-1,-1,-1,-1,-1,-1,2147483643,,
351,7,0,03/27/07 16:07,-1810,-1870,95,5,8,,60,63,65535,Other,Other,-1,-1,-1,-1,-1,-1,-1,,
351,8,0,03/23/07 00:31,90,-1000,44,3,11,,110,99,65535,Unknown,Yes,-1,-1,-1,-1,-1,-1,-1,,
351,9,0,03/27/07 16:30,-2290,-2450,87,1,2,,325,9,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,10,0,03/27/07 16:32,-2330,-2510,85,2,3,,60,65,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
351,11,0,03/27/07 16:09,-1110,-1670,64,4,9,,355,4,65535,None,None,-1,-1,-1,-1,-1,-1,-1,,
```

Figure 2: Sample comma-delimited text file from the ESS Server for the 11 stations

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**Clarus Multi-state Regional Demonstration
Connection Incentive Program (CIP) Application
Financial Plan**

AnyDOT is requesting \$9,100 from the FHWA CIP to support becoming a contributor to the *Clarus* System. The funding is broken down into the following categories:

Site Metadata: \$2,600 is requested to support travel (mileage, lodging and meals) for AnyDOT personnel to travel to the ESS for the recording of metadata. Four (4) trips are expected to be required to cover the 11 stations in the network.

Trip 1: 600 miles, 1 night. Estimate \$600

Trip 2: 900 miles, 2 nights. Estimate \$900

Trip 3: 500 miles, 1 night. Estimate \$500

Trip 4: 600 miles, 1 night. Estimate \$600

Climate Metadata: No funding is requested for climate metadata. We do not have a weather vendor under contract and opt to use the default values initially. We will work with the *Clarus* system administrator to change climate metadata if it is necessary.

Equipment: \$2,000 is requested to acquire a handheld GPS unit and digital camera to assist our personnel in collecting site metadata.

Software/Hardware: \$4,500 is requested to:

- Contract with XYZ RWIS vendor to modify the text output to accurately reflect all sensors deployed
- Purchase a larger/faster hard drive to support ESS operations
- Purchase an external backup drive to support ESS operations

Summary of Financial Plan

Travel for site metadata	\$2,600
Equipment	\$2,000
Software/Hardware	\$4,500
Total Requested	\$9,100
State Match/Cost Share 20%	\$2,275
Total Cost for Project	\$11,375

AnyDOT understands that a 20% cost share is required to obtain this federal grant. AnyDOT is committed to participating in the *Clarus* Multi-state Regional Demonstration and will cover the cost share by in-kind contributions based upon paying for labor hours for personnel to travel to ESS sites and collect necessary metadata and review/change climate metadata as needed.