

SunGuide SoftwareSM Engineering Change Proposal (ECP)2.0 Review

Liang Hsia, P.E.

Traffic Engineering Systems Section
Traffic Engineering and Operations Office
December 7, 2005



SunGuide SoftwareSM ECP 2.0 Review

Item	Cost	Voting Results	Priority	Notes
IM Through C2C	\$121,275.00	7 Yes; 1 No		
Road Ranger	\$122,916.00	6 Yes; 2 No		
Support & Maintenance	\$237,192.00	Yes	1	CMB approved for FY06 budget of \$237,192.00 in July, 2005
Travel Time	\$80,942.00	Yes	2	CMB approved in July, 2005
Performance Measures		Future		



SunGuide SoftwareSM ECP 2.0 Review

Item	Cost	Voting Results	Priority	Notes
Tag Readers		3 Yes; 1 No		
Emergency Evacuation	\$ - 42,340.00	6 Yes; 2 No	3	
Proportional Fonts	\$174,631.00	4 Yes; 1 No		



SunGuide SoftwareSM ECP 2.0 Review

Item	Cost	Note
ECP 2.0	\$694,616.32	
SunGuide Contract Under Run	\$ - 444,358.00	Based on 11/9/2005



SunGuide SoftwareSM Deployment Update

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SunGuide Software Deployment and Tentative Integration Schedule

- District 4
- District 2
- District 6
- MDX
- District 7
- District 1
- Lee County
- District 5
- District 3
- Turnpike Enterprise
- TERL



District 4 Schedule

- June 13-17, 2005:
SunGuideSM Software
deployed at D4 TMC
- June 27-28, 2005:
Operator and
Administrator Training
- August 12, 2005: 45
CCTV available
- August 16 Software
Design & Maintenance
Training
- October 2005:
Complete I/95/I595
Video Monitor System



District 2 RTMC

Oct 3-7, 2005 SunGuideSM Deployment

Oct 4-6, 2005 Operator and Administrator Training



District 6 RTMC

- August 29, 2005: Milestone Demonstration
- November 1-3, 2005: FAT
- November 7-11, 2005: SunGuideSM software deployment
- November 15-16: Operator and Administrator Trainings
- November 9, 2005: I-95 Package B project completion
- 1st Quarter 2006: Ramp Meters, C2C



MDX Schedule

- March 2006
Release 2
- March 2006
SunGuideSM Software
deployment at MDX
- March 2006
MDX TMC Operational



District 7 RTMC

June 2006: Building Construction Finish

3rd Quarter 2006: SunGuideSM Software Deployment

Deployment Budget: \$27,544.52



District 5 RTMC

FY 2004: Orlando RTMC retrofit and upgrade

September 8, 2004 - iFlorida Data Collection Process

December 2005

FY 2004-2005: iFlorida C2C between Districts 2 and 5

Deployment Budget: \$32,332



Turnpike RTMC

SunNavSM Development

April-December 2004: SunNav 1.2 Release

- NTCIP Drivers for DMS
- DMS GUI Field Sorting

November 2005 SunNav 2.0 (Final Completion)

- Web-based XML Release
- NTCIP Camera Driver
- Replication of Data
- Incident Management Dynamic Expansion
- Response Plan Upgrades

1st Quarter 2006 SunGuideSM Software

- Center-to-Center Interface Module



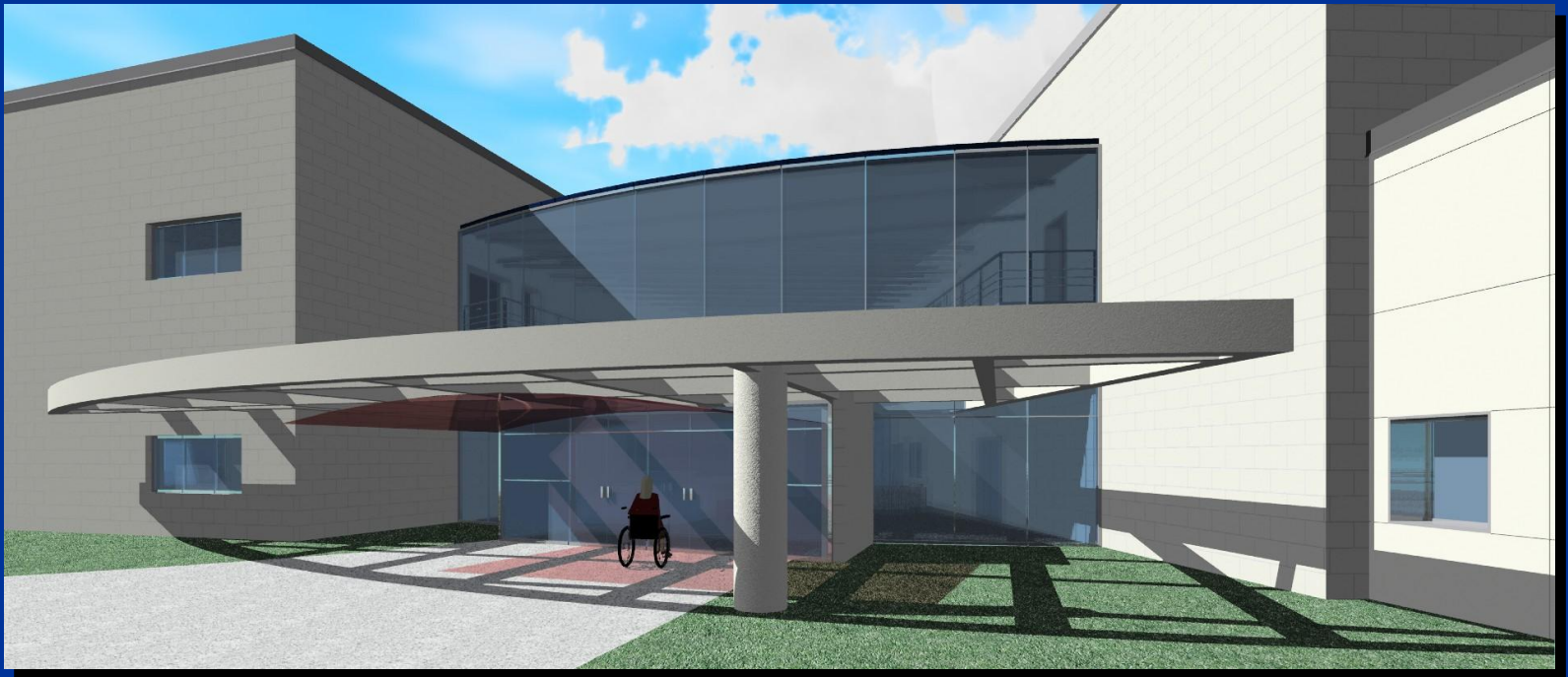
District 1

May 2005: I-75 Safety Barrier System upgrade

December 2006: SunGuideSM Deployment at Ft. Myers RTMC

FY 2011 (2005): Sarasota RTMC

Deployment Budget: \$27,395 for Ft. Meyers; \$27,545 for Sarasota



District 3

FY 2007 Pensacola RTMC

FY 2008 Tallahassee RTMC

Deployment Budget: \$29,772 for Pensacola; \$30,277 for Tallahassee



Lee County Bridge Incident Management



July 27, 2004 Lee County Public Works sent letter to FDOT indicating Lee County's participation in SunGuide Software Project

TBD SunGuide Software deployment



Traffic Engineering Research Lab

- Deployment Budget: \$9,577.52
- Early February, 2006



SunGuide SoftwareSM Future Needs

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SunGuide SoftwareSM Future Needs

- Portable SunGuide version with Microsoft Access
- Long Term Support and Maintenance –
\$1,585,413 from FY 06-FY 12

FY 06 - \$237,192.32 (Approved in July, 2005 CMB)

FY 07 – \$246,794.32

FY 08 – \$196,049.12

FY 09 – \$231,590.40

FY 10 – \$220,227.92

FY 11 – \$230,151.48

FY 12 - \$223,407.48

- Performance Measures
- Tag Readers



Traffic Engineering Research Lab for ITS

Liang Hsia, P.E.

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Traffic Engineering Systems Section

- Certification - APL
- Quality Engineering
- TERL Research Project
- Specification test and update
- Device, equipment, system test
- Signal Technical Advisory Team (STAT)



Traffic Engineering Research Lab

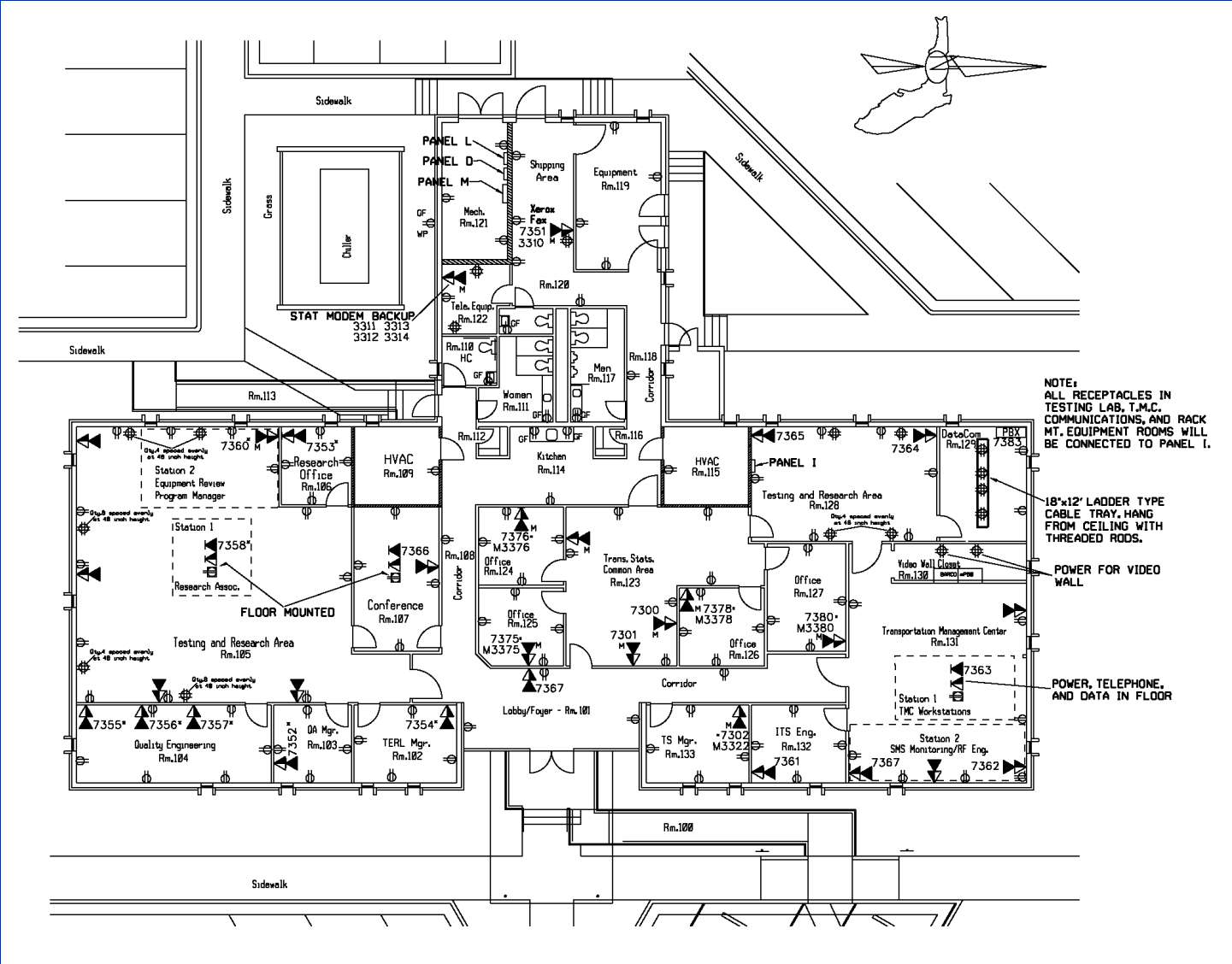
- Traffic Systems Research
- Intelligent Transportation Systems Research
- Statewide Communications Research



Research Team



TERL Facility



NOTE:
ALL RECEPTACLES IN TESTING LAB, T.M.C., COMMUNICATIONS, AND RACK MT. EQUIPMENT ROOMS WILL BE CONNECTED TO PANEL I.

18"x12" LADDER TYPE CABLE TRAY HANG FROM CEILING WITH THREADED RODS.

POWER FOR VIDEO WALL

POWER, TELEPHONE, AND DATA IN FLOOR



Proposed Traffic Engineering Systems Research

1. Quality Engineering Research and Development for the TERL ITS Lab
2. NTCIP Standards/Testing Development for Actuated Signal Controllers
3. Traffic Signal System Certification
4. Traffic Sign and Signal System Support



Proposed ITS Research Projects

1. TERL ITS and SunGuide Software Lab Setup with Ongoing Configuration Management (software, hardware, and network)
2. ITS Device Testing and Certification Processes Research to maintain and update ITS Specifications
3. ITS Devices NTCIP Florida MIB



Proposed ITS Research Projects

4. ITS Software Integration and Acceptance Tests
5. ITS Software Interfaces with DYNASMART
6. ITS Center-to-Center Communications



Traffic Signal System Research and Evaluation



Signal and Sign Support System

After Hurricane Charley, August 13, 2004





Quality Engineering Research Area





Ramp Metering, Traffic Device Test Area





Signal, Controller, QA Test Station



ITS Device Object Definitions and NTCIP Testing

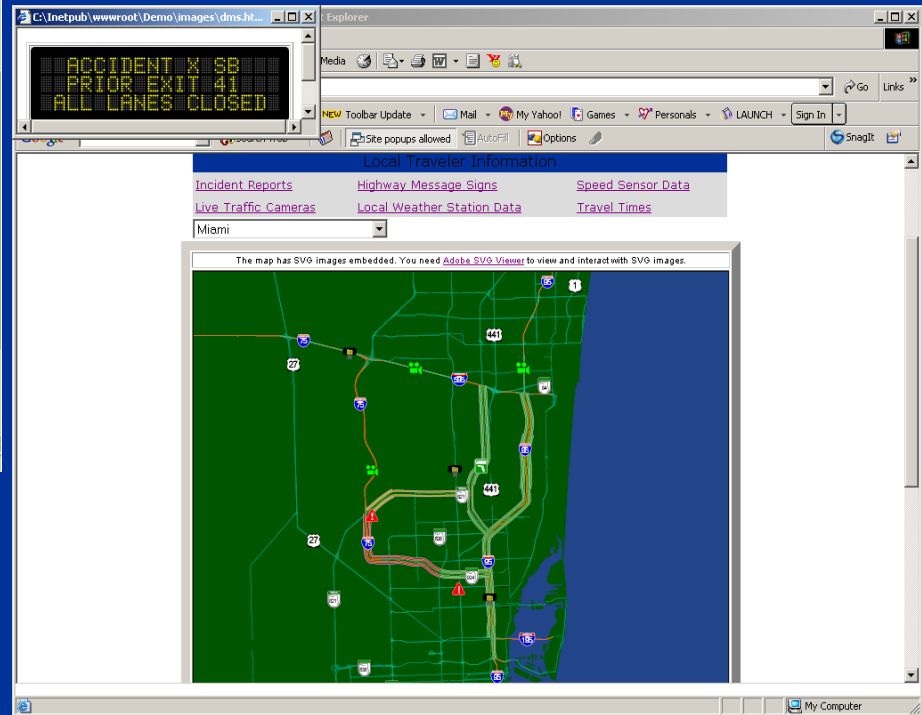
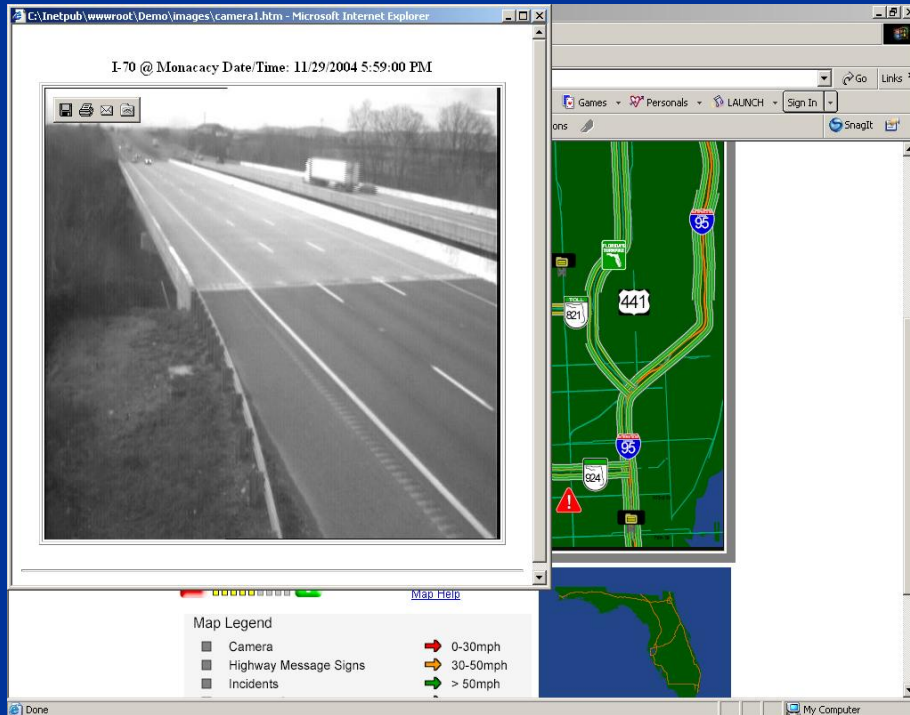
- NTCIP 1203 Dynamic Message Signs v1.0
Amendment 1
- NTCIP 1204 Environmental System Sensors
(RWIS) v02.18
- NTCIP 1205 Closed-Circuit Television Control
v01.08 Amendment 1
- NTCIP 1206 Data Collection Management
- NTCIP 1207 Ramp Meter Control
- NTCIP 1208 Video Switches v01.11
- NTCIP 1209 Transportation System Sensor



NTCIP 1203 Dynamic Message Signs



Web Server: Snapshots and DMS



NTCIP 1204 Environmental System Sensors

(RWIS on FDOT Tallahassee Microwave Tower)



NTCIP 1205 Closed-Circuit Television Control



NTCIP 1206 Data Collection Management



NTCIP 1207 Ramp Meter Control



NTCIP 1208 Video Switches



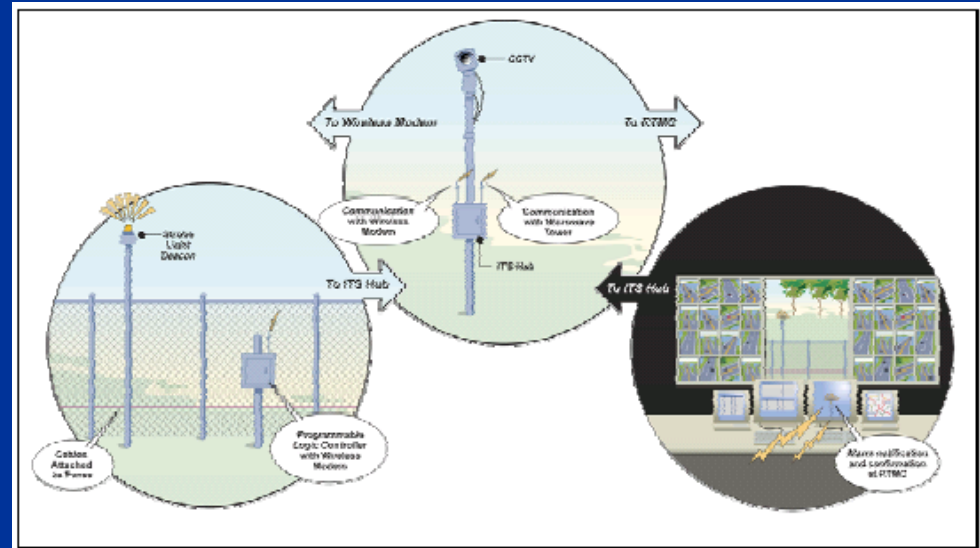
NTCIP 1209 Transportation System Sensor



Safety Barrier Cable System



Existing System



Proposed Mode of Operation



NTCIP Translator

Use of NTCIP translator devices for non-NTCIP devices

- Saves SunGuide development costs for device driver
- Facilitates integration of legacy devices



TMC Video Wall





TMC Video Wall Space





ITS Device & SunGuide Software TMC Test Area



ITS Network and Hardware

Servers for SunGuideSM Software Applications

- Database
- Production Application
- Test Application
- Configuration Management
- Simulation Host
- Web Application
- C2C
- Central Data Warehouse
- Network Administration

Storage Area Network (SAN)

Storage and Backup, Tape Backup

Network Equipment

Switches and Routers for Device and System Interconnect

Network Administration Tools





Servers, ITS Devices, & CODEC Rack Room



Traffic Engineering Research Lab

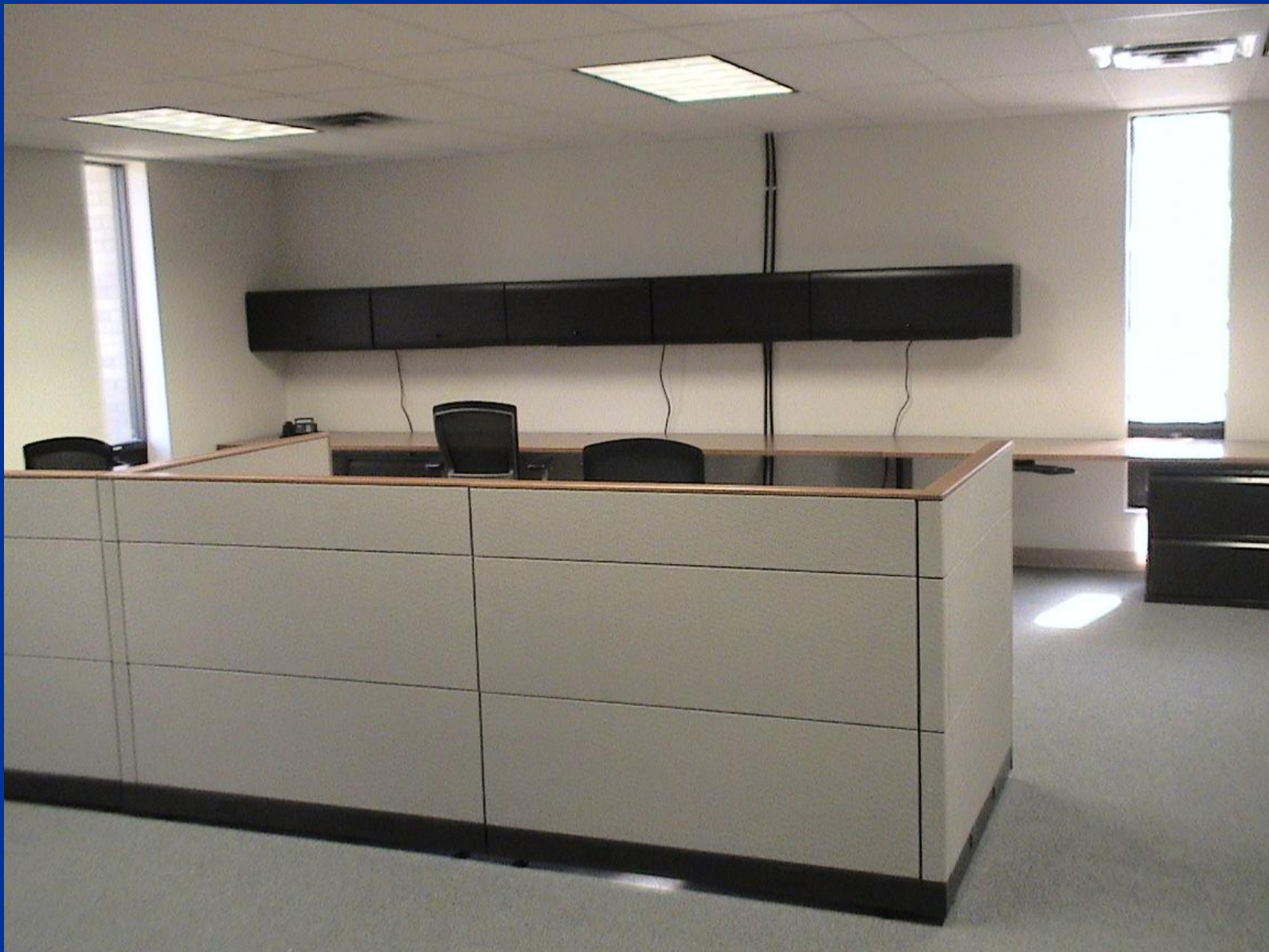
- Statewide Communications Research





Statewide Communications Test Area





TMC and Communications Test Areas



FDOT Microwave Tower





Conference Room/ Typical Office





Research Office Director's Visit

