

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

March 2, 2005

CHANGE NOTICE NO. 5
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431 Sharonl.minton@SAIC.com		TELEPHONE (937) 431-4373
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517) 241-1647 Irene Pena
Contract Compliance Inspector: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police		
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2006		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		

NATURE OF CHANGES:

Effective February 28, 2005, this contract has EXTENDED to local units of government through the MiDEAL Program.

NOTE: The vendor contact information is CHANGED to Sharon L. Minton. Her contact information is: Sharon L. Minton@SAIC.com

AUTHORITY/REASON:

Per vendor and agency agreement, and DMB/ACQUISITION SERVICES approval.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: \$3,168,860.32

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

May 14, 2004

CHANGE NOTICE NO. 4
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431 stephen.d.Schultz@SAIC.com	TELEPHONE (937) 431-4373
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-1647 Irene Pena
Contract Compliance Inspector: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police	
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2006	
TERMS <p style="text-align: center;">N/A</p>	SHIPMENT <p style="text-align: center;">N/A</p>
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	

NATURE OF CHANGES:

Effective immediately this contract is hereby extended to May 15, 2006. All other terms, conditions, specifications, and pricing remain unchanged.

AUTHORITY/REASON:

Per vendor and agency agreement, and DMB/ACQUISITION SERVICES approval.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: \$3,168,860.32

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

April 9, 2004

CHANGE NOTICE NO. 3
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431 stephen.d.Schultz@SAIC.com		TELEPHONE (937) 431-4373
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517) 241-1647 Irene Pena
Contract Compliance Inspector: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police		
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2004		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		

NATURE OF CHANGES:

Effective immediately this contract is hereby INCREASED to \$500,000.00 to cover the attached statement of work. All other terms, conditions, specifications, and pricing remain unchanged.

AUTHORITY/REASON:

Per vendor and agency agreement, and DMB/ACQUISITION SERVICES approval.

INCREASE: \$500,000.00

TOTAL REVISED ESTIMATED CONTRACT VALUE: \$1,556,010.20



ETGIS4 Michigan State Police (MSP) District Offices ETeam Deployment
Period of Performance (POP): 04 January 2004 – 30 June 2005

Task ETGIS4, Michigan State Police District Offices ETeam Services

SAIC will provide technical and engineering services to expand the Phase I statewide EMD EM/GIS ETeam Critical Incident Management System (CIMS) to accommodate County, Local and Michigan State Police (MSP) District Office ETeam user participation at the MSP District Offices.

SAIC will assist EMD in identifying the critical infrastructure resources baseline map features for each MSP District Office. SAIC will create MSP District Office and situation (also known as map scenarios) baseline maps both for ETeam and GIS ArcIMS.

SAIC will conduct application, integration and communication tests on all MSP District Office ETeam servers. Tests will include:

- Interoperations and communications between the State Emergency Operations Center (SEOC), EMD Windows, Lotus (ETeam), GIS and MSP District Offices' ETeam system configurations
- Remote access from each MSP District Office ETeam server to the SEOC ETeam server
- Ability to create, save and modify reports, logs, models, lists in ETeam
- Verification that email addresses, URLs including attached documents and other web links are functioning
- Faxing into and out of the MSP District offices
- Ability for MSP District Office ETeam servers to relinquish and reaccept ETeam project data and project (incident) ownership from other ETeam servers

SAIC will assist EMD in setting up each MSP District Offices' ETeam Security, Distribution and Notification groups, user roles and user access levels in accordance with the current version of Lotus Domino and ETeam system requirements.

SAIC will provide a maximum of 4 ETeam training sessions (4-6 hours) to a maximum of 12-15 MSP District Office users at the Collins Road SEOC. SAIC will provide a maximum of 6 hands-on ETeam training sessions to a maximum of 3-6 MSP District Office ETeam users at each MSP District Office. SAIC will assist EMD in preparing user-training cheat sheets and instructions.

Task ETGIS4, Michigan State Police District Offices ETeam Deliverables

MSP District Office ETeam map scenarios
State of Michigan ETeam Enterprise license



ETGIS4 Michigan State Police (MSP) District Offices ETeam Deployment
 Period of Performance (POP): 04 January 2004 – 30 June 2005

Task ETGIS4, Michigan State Police District Offices ETeam Costs

Services, Labor*	Qty/Hrs	Totals
Labor - Program Control Analyst	26	\$ 2,103
Labor - Jr Computer Systems Engineer, Lotus Windows, CATS/GIS	180	\$ 21,622
Labor - Sr Computer Systems Engineer, Lotus	180	\$ 21,622
Labor - Sr SW Engineer/Web Designer, SDL	100	\$ 8,184
Labor - Sr System/Communication Network Engineer	24	\$ 2,405
Labor - Team Leader/System Analyst EMD EM/GIS, ETeam/CATS	255	\$ 20,601
Labor - Trainer for CATS	60	\$ 8,008
TOTAL	825	\$ 84,545

Estimated Travel Costs	Qty	Totals
Travel - from Salt Lake UT, 6, 4-day trip (airfare, rental car, per diem)	6	\$ 15,278
Travel - from San Diego CA, 6, 4-day trip (airfare, rental car, per diem)	6	\$ 18,462
Travel - from Beaver Creek OH, 10, 3-day trip (airfare, rental car, per diem)	10	\$ 15,049
		\$ 48,789

Estimated Other Direct Charges	Totals
Other Direct Charges (ODC) misc materials and supplies, mailings, FedEx	\$ 359
	\$ 359

Services, Value Added Software Reseller	Qty/Hrs	Totals
Software - ETeam Enterprise License (final payment) plus Yr 1 Maintenance	1	\$ 366,306
		\$ 366,306
		\$ 500,000

Use or disclosure of this data is subject to the restrictions on the title page of this proposal

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

December 10, 2003

CHANGE NOTICE NO. 3
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431 stephen.d.Schultz@SAIC.com		TELEPHONE (937) 431-4373
		VENDOR NUMBER/MAIL CODE
		BUYER (517) 241-1647 Irene Pena
Contract Administrator: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police		
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2004		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		

NATURE OF CHANGES:

Effective immediately this contract is hereby INCREASED by \$1,612,850.26 to accomplish the attached work.

AUTHORITY/REASON:

Per vendor (Manuel Joaquin) and agency (Dan Sibo) agreement, and DMB/ACQUISITION SERVICES approval.

INCREASE: \$1,612,850.26

TOTAL REVISED ESTIMATED CONTRACT VALUE: \$2,668,860.32

TASK ETGIS3
EMD EM/GIS ETeam CIS
 Phase I
 Costs

Services, Labor	Qty/Hrs	Cost	Totals
Labor - Documentation Clerk	96.0	\$78.34	\$7,520.64
Labor - Jr Computer Systems Engineer, GIS	48.0	\$79.20	\$3,801.60
Labor - Jr Programmer, ETeam, CATS, GIS	120.0	\$61.13	\$7,335.60
Labor - Program Control Analyst	120.0	\$78.34	\$9,400.80
Labor - Program Manager	40.0	\$132.21	\$5,288.40
Labor - Sr Computer Systems Engineer, Lotus, Windows, CATS/GIS	120.0	\$129.14	\$15,496.80
Labor - Sr Computer Systems Engineer, Lotus	1428.0	\$129.14	\$184,411.92
Labor - Sr SW Engineer/Web Designer, SDL	1428.0	\$92.53	\$132,132.84
Labor - Sr System Engineer/Graphic Designer (SDL/Web)	120.0	\$92.53	\$11,103.60
Labor - Sr System/Communication Network Engineer	55.0	\$96.98	\$5,333.90
Labor - Team Leader/System Analyst EMD EM/GIS, ETeam and CATS	3009.0	\$98.20	\$295,483.80
Labor - Trainer for ETeam/CATS	480.0	\$98.20	\$47,136.00
Total	7064		\$724,445.90

Travel	Qty/Hrs	Cost	Totals
Travel - from San Diego CA, 5-day trip, 1 person	10	\$3,046.40	\$30,464.00
Travel - from Salt Lake UT, 5-day trip, 1 person	10	\$3,571.43	\$35,714.30
Travel - from Benavercreek OH, 5-day trip, 1 person	16	\$2,181.65	\$34,906.40
Total			\$101,084.70

Other Direct charges (ODC)	\$	500.00
Services Total	\$	\$826,030.47

Commodities - Software Purchases	Qty/Hrs	Cost	Totals
Software - Consequences Assessment Tool Set (CATS), current version (2/Agility, SBOC/remote)	8	\$650.00	\$5,200.00
Software - GeoRover (First Responder PDA Enhancement)	1	\$1,619.66	\$1,619.66
Software - Option 1, ETeam Unlimited License (FY01 or 3Yr License) w/maintenance	650	\$1,200.00	\$780,000.00
Commodities Total			\$786,819.66

SAIC Total \$1,612,850.26

Use or disclosure of the data contained on this page is subject to the restrictions on the title page of this proposal



**ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS),
CIMS Phase I Mission Critical Agency Deployment
Period of Performance (POP): 01 September 2003 – 30 September 2004**

Task ETGIS3, EMD EM/GIS ETeam Critical Incident Management System (CIMS)

SAIC will provide technical and engineering services to expand the EMD EM/GIS ETeam Pilot Project to a statewide EMD EM/GIS ETeam Critical Incident Management System (CIMS) that will accommodate the emergency operations of 4 Mission Critical State Agencies and 24 Mission Support Agencies. This expansion will be accomplished in 3 phases. Phase I will be CIMS implementation for Mission Critical Agencies, Phase II will be the implementation of the Mission Support Agencies and Phase III will be the integration of all Agencies into CIMS. The Mission Critical and Mission Support Agencies are listed below:

Mission Critical EOC Agencies:
Department of Agriculture (MDA)
Department of Community Health (MDCH)
Department of Environmental Quality (MDEQ)
Department of State Police (MSP) including:
MSP District 1 Headquarters
MSP District 2 Headquarters
MSP District 3 Headquarters
MSP District 5 Headquarters
MSP District 6 Headquarters
MSP District 7 Headquarters

MSP District 8 Headquarters

Mission Support Agencies:
Corrections
Customer & Information Services (CIS)
Department of Attorney General
Department of Career Development (MDCD)
Department of Civil Rights
Department of Civil Service (MDCS)
Department of Education (MDE)
Department of Information Technology (MDIT)
Department of Management & Budget (MDMB)
Department of Military & Veterans Affairs (MDMVA)
Department of Natural Resources (MDNR)
Department of Secretary of State (MSOS)
Department of Transportation (MDOT)
Department of Treasury
Family Independence Agency (FIA)
Governor's Office
MSP Headquarters
Office of Services to the Aging

Task ETGIS3A, EMD EM/GIS ETeam CIMS Phase I PreDeployment Hardware / Software Acquisition

SAIC will obtain and deliver new and/or updated quotes from vendors for CIMS hardware, software, communications components and services required to expand and/or upgrade the EMD EM/GIS ETeam pilot system to CIMS. SAIC will assist EMD in defining the infrastructure support (facilities, square footage, heating, air conditioning, ventilation and communication networks) required to support CIMS. SAIC will assist EMD in the preparation of the hardware, software and communication documentation to acquire the system components.

Task ETGIS3B, EMD EM/GIS ETeam CIMS Phase I Hardware, Software and Network Deployment

SAIC will oversee the installation of the CIMS Phase I Mission Critical Agency Dell hardware and network components at the SEOC primary and alternate sites (4000 Collins and Osborne Roads, Lansing). SAIC will assist EMD in relocating the existing SEOC GIS Web, Data and Office application hardware racks and network and power connections.

Task ETGIS3C, EMD EM/GIS ETeam CIMS Phase I BackUp Tape System Reconfiguration

SAIC will assist EMD in uninstalling the existing EMD EM/GIS tape backup software and in dismantling the EMD EM/GIS backup tape library hardware at the SEOC, Collins Road and reinstalling the required hardware and software at the alternate SEOC Osborne Road site. SAIC will assist EMD in setting up the new tape library operations at both SEOC sites.

Use or disclosure of this data is subject to the restrictions on the title page of this proposal.



**ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS),
CIMS Phase I Mission Critical Agency Deployment
Period of Performance (POP): 01 September 2003 – 30 September 2004**

Task ETGIS3D, EMD EM/GIS ETeam CIMS Phase I Network SetUp

SAIC will configure each SEOC site servers and Mission Critical Agency server with their own unique Internet Protocol (IP) address and Uniform Resource Locator (URL). SAIC will recommend any additional hardware, software, network and/or network firewall requirements to EMD via email as required. SAIC will assist EMD in configuring all CIMS applications to support the State of Michigan Enterprise Application Integration (EIC) secured user-access login scripts.

Task ETGIS3E, EMD EM/GIS ETeam CIMS Phase I Software Suite

SAIC will install the EMD EM/GIS ETeam CIMS Phase I Mission Critical Agency software suite (Windows 2000 Server, Lotus Domino, Notes and Sametime, ETeam, antivirus and faxing). SAIC will install the existing SEOC ETeam ArcIMS baseline map on each Mission Critical Agency server. SAIC will perform operating system and application tests on each of the new Agency and SEOC servers.

Task ETGIS3F, EMD EM/GIS ETeam CIMS Phase I Baseline Map(s)

SAIC will assist EMD in identifying the critical infrastructure resources baseline map features for each Mission Critical Agency. SAIC will create Agency and situation (also known as map scenarios) baseline maps both for ETeam and GIS ArcIMS. For example, Community Health's baseline map features may include hospitals, medical centers and laboratories; Environmental Quality's baseline map features may include hazardous sites, wells and streams; Agriculture's baseline map features may include farms, farmland, and food processing plants; Michigan State Police District 1's baseline map features may include streets for only District 1 and Counties surrounding District 1, police stations, fire stations and schools. SAIC will create 1 situation map for each Mission Critical Agency and 1 duplicate Mission Critical Agency map for the SEOC ETeam and GIS ArcIMS application.

Task ETGIS3G, EMD EM/GIS ETeam CIMS Phase I Application, Integration and Communication Tests

SAIC will conduct application, integration and communication tests at both SEOC sites on all SEOC and Mission Critical Agency servers. Tests will include:

- interoperations and communications between the SEOC and EMD Windows, Lotus (ETeam) and GIS system configurations
- remote access from each Mission Critical Agency's EOC site to their SEOC Agency server
- ability to create, save and modify reports, logs, models, lists in ETeam
- verification of email addresses, URLs including attached documents and other web links are functioning
- faxing into the SEOC and out of the SEOC and faxing from the Agency remote sites
- ability for Agency servers to relinquish and reaccept ETeam project (incident) ownership

Task ETGIS3H, EMD EM/GIS ETeam CIMS Phase I User Privileges and Groups

SAIC will assist EMD in setting up each Mission Critical Agency's ETeam Security Distribution and Notification groups, user roles and user access levels in accordance with the Lotus Domino v5+ and ETeam System Administration Guide v2.1

Task ETGIS3I, EMD EM/GIS ETeam CIMS Phase I Training

SAIC will provide a maximum of 4 ETeam training sessions (4-6 hours) to a maximum of 12-15 Mission Critical Agency users at the Collins Road SEOC. SAIC will provide a maximum of 4 hands-on ETeam training to a maximum of 3-6 Mission Critical Agency users (per Agency) at the Agency's remote site. SAIC will assist EMD in preparing user-training cheat sheets and instructions.

Use or disclosure of this data is subject to the restrictions on the title page of this proposal.



ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS), CIMS Phase I Mission Critical Agency Deployment Period of Performance (POP): 01 September 2003 – 30 September 2004

Task ETGIS3J, EMD EM/GIS ETeam CIMS Phase I Prototype Library

SAIC will expand the capabilities of the GIS Spatial Data Library (SDL) to facilitate the ability to organize, find, create and share SEOC and EMD program/project and mission-critical Agency data SAIC will develop and/or enhance existing SDL capabilities to/for:

- Check-in and check-out documentation
- Collaborate on-line changes and/or additions to documentation
- Secured access in accordance with EIC
- Embedded and multiple keyword searches
- Office application access to documentation and for searching
- Track document versions and history
- Unified searches over multiple servers and operating systems
- User subscriptions and notification services
- Web tools (plugins, desktop tools)
- Basic or in-depth Wizard full text and/or phrase, date and document type searches with quantity (hits) limits, sorts and with/without summaries
- Content news

SAIC will reconfigure the SDL Home Page one single user interface "CIMS Library Home" page to accommodate all CIMS-related applications (CATS, ETeam, GIS) with links to other State of Michigan, EM, Homeland Security, Public Safety applications and websites. SAIC will design the CIMS Phase I Mission Critical Agency library home page capabilities similar to State of Michigan Enterprise Application Portal, Michigan Health Alert and ETeam Below is an example of the SDL website to date



EMD EM/GIS Spatial Data Library (SDL) Portal, August 2003

Use or disclosure of this data is subject to the restrictions on the title page of this proposal.



**ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS),
CIMS Phase I Mission Critical Agency Deployment
Period of Performance (POP): 01 September 2003 – 30 September 2004**

Task ETGIS3K, EMD EM/GIS ETeam CIMS Phase I GeoSpatial Database Support Services

SAIC will assist EMD in obtaining, formatting and adding Mission Critical Agency EOC information for populating ETeam tables. Information includes but not limited to resources (equipment, facilities (public, hospitals, shelters, utilities), personnel), planned events/activities, jurisdiction information, services and lists (call, distribution, notification). SAIC will add a maximum of 500 new records per Mission Critical Agency into ETeam resource tables.

SAIC will merge, link to and/or geocode SEOC, EMD and Mission Critical Agency resource and critical infrastructure information into geospatial datafiles (databases and shapefiles). SAIC will review online websites for additional and/or updated address, telephone, cellular and/or fax data and points of contact information on the critical infrastructure resources listed below. SAIC will crosscheck existing SDL datasets for currency, content and duplication. A maximum of 25 datafiles and 5 linked databases per Mission Critical Agency will be created.

Bank/Finance	Banks, financial institutions, credit unions
Commercial/Industrial	Plants and facilities for chemicals, radiology or biological components, centers, co-ops, agriculture, livestock and malls/shopping centers, hotels/convention centers
Communications	Television, telephone, radio and computer facilities, switching stations, satellite support facilities, transmission towers
Electric Power	Electric generation stations, distribution facilities, transmission lines, utilities poles, buildings
Emergency Services	Law enforcement, fire, local emergency operations centers emergency responder stations, emergency medical services
Government	Federal, Regional, State and Local government office building, courthouses, military installations (including reserve and national guard), foreign government offices and consulates
Law Enforcement	Prisons, jails, correctional facilities, camps, reformatories
Oil/Gas	Petroleum refineries, major gas/oil storage and shipment facilities, pumping stations, pipelines, control stations
Public Facilities	Science research facilities, academic institutions, museums, schools
Public Health	Hospitals, emergency medical centers, mental institution, rehab centers, care facilities
Recreation	Sports arenas, auditoriums, theaters parks, casinos, concert halls/pavilions
Religious Facilities	Churches, temples, missions, centers, camps
Transportation	Railheads/rail yards, interstate highways, tunnels, bridges, subways, airports (buildings, runways), bus terminals, bridges, ferries, truck terminals, air navigation aids, seaports (buildings, pavement, wharves)
Water Supply	Water supply plants, water purification systems, water distribution systems, waste water plants, dams, reservoirs
Environmental Concerns	Landfills, hazardous sites
Miscellaneous	Special events/interest, parades, religious services, festivals, celebrations, scenic tours, family planning clinics, alternate life style facilities, other large gathering places/events, trailer and mobile home parks, fairgrounds

Task ETGIS3L, EMD EM/GIS ETeam CIMS Phase I GIS GeoDatabase Repository Development

SAIC will develop the EMD EM/GIS ETeam CIMS geospatial database repository capability that will link existing CIMS databases with other SEOC, Mission Critical Agency, State of Michigan, Federal and National databases. SAIC will install, integrate and test the ESRI ArcSDE and Oracle Enterprise applications with the Microsoft SQL Server on a EMD/EM GIS server SAIC will reconfigure the existing

Use or disclosure of this data is subject to the restrictions on the title page of this proposal

4

9 September 2003



**ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS),
CIMS Phase I Mission Critical Agency Deployment
Period of Performance-(POP): 01 September 2003 – 30 September 2004**

Microsoft TerraServer SQL database linkage. SAIC will add all database/repository linkages on the CIMS Library Home Page

Task ETGIS3M, EMD EM/GIS ETeam CIMS Phase I GeoSpatial Symbology

SAIC will review Local, County, State, National, Federal and International geospatial feature symbology (markers, lines, hatches, color palettes, fonts, styles) for incorporation into the EMD EM/GIS ETeam CIMS suite of markers and symbols.

Task ETGIS3N, EMD EM/GIS ETeam CIMS Phase I Operational Support

SAIC will provide technical support to assist the EMD CIMS Phase I Mission Critical Agency system manager, system operator and database administrator in administering and maintaining CIMS Phase I via telephone, e-mail, SecurID or on-site while working on other task order activities during normal work hours (8:00a.m EST – 5:00 p.m. EST) and provide 24/7 support services for a maximum of 6 planned exercises and/or declared emergencies. SAIC will assist EMD in defining and developing backup procedures for the Phase I CIMS. SAIC will assist EMD in conducting a minimum of 1 annual mock CIMS Phase I Mission Critical Agency disaster recovery exercise.

Task ETGIS3O, EMD EM/GIS ETeam CIMS Phase II Work Plan and Configuration

SAIC will develop and deliver a work plan for the deployment and implementation of the Phase II EMD EM/GIS ETeam CIMS. SAIC will update and deliver updates, as required, the EMD EM/GIS ETeam CIMS System configuration diagram (CIMS for DIT, 16Jun03.ppt, delivered under Task ETGIS1) All CIMS Phase I and SEOC Enhancement (Task ETGIS2) hardware, software and network additions and replacements will be added to the configuration diagrams.

Task ETGIS3P, EMD EM/GIS ETeam CIMS Phase I Program Management, Analysis and Liaison Support

SAIC will provide technical support services required to plan coordinate manage and provide status on SAIC activities for Phase I, EMD EM/GIS ETeam CIMS.

SAIC will provide technical and coordination liaison support services to State of Michigan Agencies, County and Local governments and organizations that support these agencies relative to emergency management, public safety and health, hazardous material management and incidents, law enforcement, homeland security, weapons of mass destruction and terrorism activities. The purpose of the liaison role is to assist EMD in providing information and guidance to those agencies that may desire or plan to integrate their EOC applications with the State's CIMS.

SAIC will provide technical and subject matter expert assistance to EMD in preparing the documentation and conducting informational briefing and meetings and in designing and preparing informational pamphlets and handouts.

SAIC will provide technical analytical support to identify and quantify projected technological opportunities that will enable CIMS Phase I Mission Critical Agency to enhance and/or provide additional capabilities of CIMS. These activities include review of commercial and governmental hardware, software applications and technology processes. SAIC will analyze a maximum of 3 Commercial-off-the-Shelf (COTS) and/or Government-off-the-Shelf (GOTS) EM-related applications that State of Michigan Agencies and EMD consider as potential integration applications with CIMS. SAIC will prepare and deliver recommendations via e-mail. The following product(s) have been identified to date: Virtual Alert



**ETGIS3 EMD EM/GIS ETeam Critical Incident Management System (CIMS),
CIMS Phase I Mission Critical Agency Deployment
Period of Performance (POP): 01 September 2003 – 30 September 2004**

Task ETGIS3, EMD EM/GIS ETeam CIMS Phase I Deliverables

Vendor hardware, software, communications and services requirements and quotes
SAIC Value Added Resaler software media
Agency and SEOC ETeam and GIS ArcIMS baseline maps and datafiles
CIMS Library Home Page
Mission Critical Agency datasets/databases
Agency and GIS geocoded shapefiles
CIMS Phase II Work Plan
CIMS Configuration Diagram
CIMS capabilities and enhancement upgrade recommendations

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 ACQUISITION SERVICES
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

October 13, 2003

CHANGE NOTICE NO. 2
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431 stephen.d.Schultz@SAIC.com		TELEPHONE (937) 431-4373
		VENDOR NUMBER/MAIL CODE
		BUYER (517) 241-1647 Irene Pena
Contract Administrator: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police		
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2004		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		

NATURE OF CHANGES:

Effective October 7, 2003, this contract has been INCREASED by \$84,101.20. The new contract value is \$1,056,010.06. All other terms, specifications, conditions, and pricing remain the same.

AUTHORITY/REASON:

Per vendor contact (Manuel Joaquindy) dated 7/23/03, agency approval (Shelley Warstler) dated 8/26/03 and DMB/Acquisition Services.

INCREASE: \$84,101.20

TOTAL REVISED ESTIMATED CONTRACT VALUE: \$1,056,010.06

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 OFFICE OF PURCHASING
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

January 28, 2003

CHANGE NOTICE NO. 1
TO
CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonial Glenn Hwy Beavercreek, OH 45431		TELEPHONE (937) 431-4373
		VENDOR NUMBER/MAIL CODE
stephen.d.Schultz@SAIC.com		BUYER (517) 241-1647 Irene Pena
Contract Administrator: Dan Sibel Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police		
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2004		
TERMS N/A	SHIPMENT N/A	
F.O.B. N/A	SHIPPED FROM N/A	
MINIMUM DELIVERY REQUIREMENTS N/A		

NATURE OF CHANGES:

The following contract is hereby **INCREASED** by \$502,000.00 to complete the attached statement of work. Also, the vendor's address has been changed to:

4161 Campus Point Ct.
Sand Diego, CA 92121

Mail code: 001

AUTHORITY/REASON:

Per agency's request (Shelly Warstter) on 12/20/02 and DMB/ACQUISITION SERVICES approval.

INCREASE: \$502,000.00

TOTAL REVISED ESTIMATED CONTRACT VALUE: \$971,908.86

EMD Geographical Information System (GIS) E Team Integration**Task ETGIS1, EMD GIS E Team Integration**

Provide engineering services to integrate the E Team emergency management software with the EMD GIS.

Task ETGIS1, EMD GIS E Team Integration Purpose

The purpose of the following tasks is to install the command and control software known as E Team, supplemented by the Consequence Assessment Tool Set (CATS) for the Michigan State Police State (MSP), Emergency Management Division (EMD), at the State Emergency Operations Center (SEOC). The end result of the project will be the installation and training of the above software for approximately 60 members of the State emergency response staff and the integration of the E Team/CATS capabilities with the EMD GIS.

Task ETGIS1a, Phase I EMD GIS E Team/CATS/ESRI Suite Integration

Phase I EMD GIS E Team/CATS and Environmental Systems Research Institute's (ESRI) ArcView and Spatial Analyst integration activities will include:

- Deliver and install E Team licenses on the EMD GIS WebServer and on a minimum of 15 SEOC-owned desktop PCs in the SEOC.
- Configure E Team licenses, including log-in and passwords, appropriate permissions and off-the-shelf E Team configuration requirements.
- Configure the existing EMD/SEOC CATS license with E Team and deliver a minimum of 3 additional CATS licenses and/or upgrades for Agency use.
- Conduct hands-on E Team and CATS PC installation training to the EMD GIS computer technician who will assist Agency and SEOC personnel with the installation and setup of E Team (45 licenses) and CATS at their respective Agency desktop/PC location.
- Configure and integrate E Team/CATS software with ArcIMS v4 and the EMD GIS Michigan Framework streetmapping baseline v2, established under EMD GIS Task Order SDL3a.
- Conduct a maximum of 5, 2-day E Team/CATS training sessions at the SEOC. The initial session will be for key EMD and SEOC personnel with the purpose of assuring the completeness of the E Team/CATS/ESRI suite installation and integration.
- Document and prepare an EMD GIS/E Team Integration and Training Session Action Item List.
- Develop EMD GIS/E Team draft backup DataServer, WebServer and GIS technical workstation operational maintenance and backup procedures and incorporate into the EMD GIS Web/DataServer and ArcIMS backup procedures (Task Order WSS2)
- Identify a minimum of 3 EMD GIS/E Team off-site host backup and storage scenarios.
- Compare existing and under-development EMD GIS critical infrastructure geospatial dataset features (Task Order SDL3a-b, SDL1a-b, A1c4d5-6 and A1C2a) and the features' digital orthophoto quarter quads area thumbnails with E Team features and identify record duplications and new attributes.
- Review E Team feature symbology with EMD GIS feature symbology and identify new palette and style objects
- Catalog new E Team/CATS feature datasets into the EMD GIS Spatial Data Library (SDL) repository index.
- Design, test and implement an E Team/GeoData input WebPage on the EMD GIS WebServer and IPAQs for adding new or updating existing geospatial dataset records. New webpages shall be incorporated into the SDL (Task Order WSS1).
- Identify and prioritize in input order existing EM and SEOC operational support data and lists, for example, points of contacts, directories, call lists, supplies lists, resource locations (addresses) for data inputs and geocoding.



Use or disclosure of data contained on this sheet is subject to contract restrictions.

- Identify manual-to-GeoEForm geospatial data input and GeoReport generation requirements based on information collected during the training sessions.
 - Identify Agency candidate geospatial datasets and resources based on information collected during the training sessions required to catalog the data to the EMD GIS SDL repository index.
 - Identify EMD GIS GeoPlasma and GeoTV screens for real-time digital mapping and multi-media display design and implementation requirements.
 - Identify a minimum of 2 methods of maintaining EMD GIS/E Team WebServer, DataServer, GIS technician workstations (2) and the GeoPlasma screens time synchronization solutions
- NOTE: EMD chosen solution will be implemented under Task Order WSS2.

Task ETGIS1a, Phase I EMD GIS E Team/CATS/ESRI Suite Integration Deliverables

EMD GIS/E Team/CATS/ESRI Emergency Management and integration software
 Updated SDL Home, State, County WebPages
 GeoSpatial data input and update webpage for the repository index/E Team and IPAQs
 EMD GIS/E Team Integration and Training Session Action Item List with solutions recommendations and resources requirements
 Revised E Team/ArcIMS v4 installation, backup, storage and archiving procedures
 Geospatial new dataset attributes and symbology recommendations
 Agencies EM and SEOC operations data and geospatial data requests (incorporate in the EMD GIS/E Team Integration and Training Session Action Item List)
 EMD GIS/E Team off-site host backup and storage scenario recommendations
 GeoEForms and GeoReports development recommendations
 GeoPlasma and GeoTV display recommendations
 Time synchronization recommendations

Task ETGIS1a, Phase I EMD GIS E Team/CATS/ESRI Suite Integration General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan
 Costs valid for 30 days.
 Incremental funding authorized.
 Period of Performance dates listed under the "costs" section of this document are subject to change-based on the official contract confirmation and actual start work dates.
 EMD will provide a list(s) of personnel to be trained, training session's dates and coordinate all training sessions logistics. The goal for training is to have all E Team training accomplished for this phase of E Team/EMD GIS integration by 27 November 2002.
 EMD will provide hard and digital forms and reports samples
 EMD will provide technical and operational information on the EMD GIS IPAQ, GeoPCs, GeoPlasma and GeoTV hardware and software configuration, Michigan framework files for State and all Counties and DOQQ tiles



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Task ETGIS1a, Phase I EMD GIS E Team/CATS/ESRI Suite Integration

SAIC Proposal: 01-0190-71-2003-174R1 ETGIS1

Michigan State Police, EMD GIS

Estimated Period of Performance: 05 Oct 2002 – 31 Dec 2002

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	40	\$3,133.60
	Team Leader/System Analyst	\$98.20	300	\$29,460.00
*	Team Leader/System Analyst for E Team	\$207.29	25	\$5,182.25
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	80	\$4,072.80
	Sr SW Engineer/Web Designer	\$92.53	180	\$16,655.40
	Programmer	\$61.13	0	0
*	Trainer for E Team and CATS	\$58.71	235	\$13,796.85
*	Sr Computer Systems Engineer for E Team	\$129.14	490	\$63,278.60
*	Computer Systems Engineer for E Team	\$71.87	150	\$10,780.50
	Computer Systems Engineer	\$79.20	80	\$6,336.00

Subtotal Hrs 1580 \$152,696.00

* New rates which are subject to final review and approval by the State of Michigan Acquisition Dept.

1) 3 day trip for 2 People from San Diego, CA to East Lansing MI (5 Trips Total)

2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$ 4,684.80	5	\$23,424.00
	Travel - Car Rental	\$ 144.40	5	\$722.00
	Travel - Motel	\$ 321.24	5	\$1,606.20
	Travel - Meals	\$ 311.36	5	\$1,556.80
	Travel - Mileage reimbursement to/from airport	\$ 28.00	5	\$140.00
	Travel - Airport Parking	\$ 111.20	5	\$556.00
	*estimated burdened rate		Subtotal	\$28,005.00

2) 3 day trip for 1 person from Beavercreek, OH to East Lansing, MI (5 Trips Total)

2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$ 807.80	5	\$4,039.00
	Travel - Car Rental	\$ 144.40	5	\$722.00
	Travel - Motel	\$ 160.57	5	\$802.85
	Travel - Meals	\$ 155.63	5	\$778.15
	Travel - Mileage reimbursement to/from airport	\$ 13.80	5	\$69.00
	Travel - Airport Parking	\$ 55.60	5	\$278.00
	*estimated burdened rate		Subtotal	\$6,689.00



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3) 4 day trip for 3 People from San Diego, CA to East Lansing MI (1 Trip Total)

2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$ 7,027.00	1	\$7,027.00
	Travel - Car Rental	\$ 193.00	1	\$193.00
	Travel - Motel	\$ 722.52	1	\$722.52
	Travel - Meals	\$ 622.48	1	\$622.48
	Travel - Mileage reimbursement to/from airport	\$ 43.00	1	\$43.00
	Travel - Airport Parking	\$ 223.00	1	\$223.00
	<i>*estimated burdened rate</i>		Subtotal	\$8,831.00

4) 4 day trip for 1 person from Beavercreek, OH to East Lansing, MI (1 Trip Total)

2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$ 808.00	1	\$808.00
	Travel - Car Rental	\$ 193.00	1	\$193.00
	Travel - Motel	\$ 240.66	1	\$240.66
	Travel - Meals	\$ 207.34	1	\$207.34
	Travel - Mileage reimbursement to/from airport	\$ 13.00	1	\$13.00
	Travel - Airport Parking	\$ 74.00	1	\$74.00
	<i>*estimated burdened rate</i>		Subtotal	\$1,536.00

3	Labor, ODC and G&A	Unit \$\$	Quantity	Amount \$\$
	E Team Emergency Management SW Licenses (Quote for 80 licenses)	\$107,630.00	1	\$107,630.00
	E Team CATS Licenses (Quote Per License, Per User)	\$689.00	3	\$2,067.00
			Subtotal	\$109,697.00

**Inclusive of SAIC approved indirect burdens*

TOTAL EFFORT

\$307,455.00



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Task A1c4d5 - EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 5

This task will provide EMD GIS technical engineering support to analyze, design and create new single feature/layer shapefiles from the multi-feature/layer ArcGIS v8.1 files. A maximum of 75 ArcGIS State coverages will be reviewed with the new ArcView v3.2 shapefiles created under Tasks A1c4d1, A1c4d2, A1c4d3 and A1c4d4 to identify duplicate data and to determine which ArcGIS files need to be cut down. Duplicate ArcView files will be copied and converted (imported) to ArcGIS files under Task A1c4d6.

The purpose for these new shapefiles is to support the EMD GIS WebServer MapServices and ArcIMS and ArcExplorer JAVA and XML capabilities and its requirements for single feature/layer shapefiles and to reduce the number of duplicate features.

SAIC will create ArcGIS legends, "thumbnails" jpgs and zips of the new layer files and add the resulting files to the appropriate EMD GIS DataServer (30-SEOC-FS2) folder. The following ArcGIS8 files will be reviewed.

admin_units_world00_ArcGIS8	institutions_ArcGIS8	rivers_MI_ArcGIS8
airports_ArcGIS8	interstates_ArcGIS8	rivers_world_ArcGIS8
areacode_ArcGIS8	lakes_ArcGIS8	road_names_ArcGIS8
areas_dominant_influence_ArcGIS8	lakes_world_ArcGIS8	roads_ArcGIS8
buildings_public_ArcGIS8	landmarks_area_ArcGIS8	roads_MI_ArcGIS8
cemeteries_ArcGIS8	landmarks_parks_ArcGIS8	schools_ArcGIS8
census_block_groups_ArcGIS8	lands_federal_ArcGIS8	states_ArcGIS8
census_tracts_ArcGIS8	lands_federal_area_ArcGIS8	states_details_ArcGIS8
census_tracts_MI_ArcGIS8	lands_public_ArcGIS8	summits_ArcGIS8
churches_ArcGIS8	latlong_ArcGIS8	terminals_transportation_ArcGIS8
cities_world_ArcGIS8	localities_ArcGIS8	timezone_ArcGIS8
continent_ArcGIS8	nad27_ArcGIS8	urban_areas_ArcGIS8
counties_details_ArcGIS8	nad83_ArcGIS8	urban_details_ArcGIS8
country_world_ArcGIS8	places_populated_ArcGIS8	utm_zones_ArcGIS8
country_world00_ArcGIS8	places_pts_world_ArcGIS8	water_area_ArcGIS8
country_world92_ArcGIS8	population_ArcGIS8	water_bodies_major_ArcGIS8
drainage_world_ArcGIS8	quad100k_ArcGIS8	water_lines_ArcGIS8
earthquakes_history_ArcGIS8	quad24k_ArcGIS8	world30_world_ArcGIS8
ecoregions_wildlife_ArcGIS8	quad250k_ArcGIS8	zipcode_areas_MI_ArcGIS8
geogrid_world_ArcGIS8	railroads_ArcGIS8	zipcode3_areas_ArcGIS8
golf_areas_ArcGIS8	recreational_areas_ArcGIS8	zipcode3_pts_ArcGIS8
highways_ArcGIS8	regions_world_ArcGIS8	zipcode5_areas_ArcGIS8
highways_US_ArcGIS8	retail_centers_ArcGIS8	
hospitals_ArcGIS8	rivers_ArcGIS8	

Phase II, Interim Task A1c4d5, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 5 Deliverables

Create/update a report listing the new ArcGIS layer files

Phase II, Interim Task A1c4d5, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 5 General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan

Costs valid for 30 days.

Incremental funding authorized.

Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates.



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Phase II, Interim Task A1c4d5, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 5 Costs

SAIC Proposal: 01-0190-71-2003-174-A1c4d5

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Oct 2002 – 28 Feb 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	6	\$470.04
	Team Leader/System Analyst	\$98.20	140	\$13,748.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Jr SW Eng/Web Designer	\$50.91	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	100	\$7,920.00
			Subtotal Hrs	246 \$22,138.04
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
			Subtotal	\$0.00
			*estimated burdened rate	
3	Labor, ODC and G&A		Total Price	<u>\$22,138.04</u>



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Task A1c4d6 - EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 6

This task will provide EMD GIS technical engineering support to analyze, design and create new single feature-type ArcView shapefiles and ArcGIS layer files by merging the like, feature-type files not accomplished or identified under Tasks A1c4d1, A1c4d2, A1c4d3 and A1c4d4.

Both ArcView and ArcGIS merging and/or appending processes require each like, file type have the same number of and labeled columns. ArcView will be used to merges and results will be imported and converted into ArcGIS layer files.

The purpose of the single merged feature-type file is to reduce the number of datasets that contain the same information and records and to provide one feature source for quick review and downloading.

The following multi-source, like-type features will be merged into one file per feature type.

airports (and heliports)	dams	railroads
airways	docks (and piers, wharfs)	recreational areas
arenas	fire departments/stations	reservoirs
auditoriums	golf courses	retail centers (and shopping)
bars (land feature)	halls	rivers
bays	highways	roads (and trails)
beaches	hospitals (and interstates)	runways
boundaries (County, economic areas, parks)	lakes (and ponds)	schools
bridges	librarys	sites
campgrounds and camps	locks	stations
canals (and ditches)	lodging	streams (and creeks)
census info (blocks, tracts)	military bases (and installations)	terminals
channels	mines	tunnels
cemeteries	museums	warehouses
churches	population areas (and urban areas)	water bodies
cities (towns and localities)	plants	wells
colleges (and universities)	police	wetlands
County Info	prisons (and jails)	zipcodes

SAIC will create ArcGIS legends, "thumbnails" jpgs and zips of the new layer files for each County in both ArcView and ArcGIS formats and add the resulting files to the appropriate EMD GIS DataServer (30-SEOC-FS2) folder.

Phase II, Interim Task A1c4d6, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 6 Deliverables

Create and/or update listing the new shapefiles

Phase II, Interim Task A1c4d6, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 6 General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan.

Costs valid for 30 days.

Incremental funding authorized.

Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates.



Use or disclosure of data contained on this sheet is subject to contract restrictions.

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Phase II, Interim Task A1c4d6, EMD GIS Prototype Shapefile Feature/Layer Extraction, Set 6 Costs

SAIC Proposal: 01-0190-71-2003-174-A1c4d6

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Oct 2002 – 30 Apr 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	6	\$470.04
	Team Leader/System Analyst	\$98.20	160	\$15,712.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Jr SW Eng/Web Designer	\$50.91	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	60	\$4,752.00
			Subtotal Hrs	226 \$20,934.04
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
			Subtotal	\$0.00
	*estimated burdened rate			
3	Labor, ODC and G&A		Total Price	\$20,934.04



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2

Phase II, Interim Task A1c2a, GeoCode Agency Data

This task will provide interim EMD GIS engineering support for the development of new geocoded shapefiles of Michigan Agency data.

SAIC will geocode and create new County shapefiles of address on-line information obtained from the State of Michigan agencies to date. SAIC will check this information against the existing shapefile information for currency and duplication and update existing shapefiles as required. SAIC will review agency's file for currency, content, and quantity. A minimum of 5 shapefiles per agency will be created.

Geocode address information gathered from:

State Agencies:**MDEQ**

- Abandoned wells sites (check for updates)
- Air pollution sites
- Biosolids discharge sites
- Brownfield / Superfund sites (review/update existing shapefiles)
- Combined sewer overflow (CSO) facilities
- Communities in subdivision Floodplain
- Contaminated water sites
- Contaminated well sites
- Gas and oil well permits and production sites
- Hazardous and non-hazardous solid waste disposal sites
- Hazardous waste management, part111.dbf (check for updates)
- Household waste collection sites
- Leaking tanks
- Locations of intakes for surface water sources (sensitive data)
- Monitored land threatened lakes
- Open and closed underground and above ground storage tanks
- Public water supply intakes
- Scrap tire haulers and collection sites
- Solid waste management, part115.dbf (check for updates)
- Storage tanks (underground, above ground) sites
- Storm water drainage permit sites
- Various Agency POCs lists
- Waste discharge permit site
- Waste disposal haulers
- Waste disposal sites
- Waste haulers and transporters
- Well sites and permits

MDNR

- Campsite locations
- Fishing piers
- Hunting and fishing license agents and sites
- Public boat launch sites
- Public hunting on private land areas and land owners
- Public shooting ranges (some include archery) over 150
- State parks
- Various Agency POCs lists
- Wildlife areas



Wildlife offices and POCs

MDOT

- Airports addresses (over 250)
- Amtrak stations
- Bus carriers (licensed)
- Carpool parking lots and rideshare offices (over 200)
- Ferries
- Harbors (linked to MDNR)
- Hazmat testing facilities (just over 100)
- Historic bridge locations (over 60)
- Limousine carriers (licensed)
- MDOT transportation service centers
- Passenger Transportation MDOT project managers (per county)
- Ports of entry
- Public transportation offices
- Transit providers (about 57)
- US Customs offices
- Various Agency POCs lists

MCIS and Michigan Public Service Commission (MPSC)

- Electric and natural gas service providers by town and/or city
- Investor owned and municipal electric and natural gas utilities offices and POCs
- Natural gas storage field locations
- Regulated telephone companies
- Telecommunication service providers offices and POCs
- Various Agency POCs lists

Phase II, Interim Task A1c2a, GeoCode Agency Data Deliverables

New and updated EMD GIS agency shapefiles
List of additional features to be geocoded.

Phase II, Interim Task A1c2a, GeoCode Agency Data Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan
EMD will assist in determining feature symbology.
Costs valid for 30 days.
Incremental funding authorized.
Period of Performance dates listed under the "costs" section of this document are subject to change -
based on the official contract confirmation and actual start work dates.



Phase II, Interim Task A1c2a, GeoCode Agency Data Costs

SAIC Proposal: 01-0190-71-2003-174-A1c2a Update
Michigan State Police, Emergency Management Division
Approximate Period of Performance: 1 Dec 2002 – 31 Jul 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	4	\$313.36
	Team Leader/System Analyst	\$98.20	170	\$16,694.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	100	\$7,920.00
			Subtotal Hrs	274 \$24,927.36
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (4 days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (3 nights)	\$0.00	0	\$0.00
	Travel - Meals (4 days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (4 days, \$15.00/day)	\$0.00	0	\$0.00
	<i>*estimated burdened rate</i>		Subtotal	\$0.00
3	Labor, ODC and G&A		Total Price	<u>\$24,927.36</u>



EMD GIS SDL Critical Infrastructure Resource Identification

Provide Engineering Services to identify critical infrastructure features and to create new and/or update existing SDL resources (information, shapefiles and imagery) to support the mission of EMD's emergency management, safety, hazard mitigation and homeland security.

Task SDL1a, EMD GIS SDL Critical Infrastructure Resource Identification

SAIC will review existing source data collected as of 1 June 2002 (existing shapefiles and non-shapefile data from Michigan State and Federal agencies) that support the following critical infrastructure resources. SAIC will identify existing and new SDL resources (See Note below) for EMD review and approval. SAIC will query on-line and EMD-provided Michigan information sources and directories of businesses, organizations (yellow and white pages, 2000 Census, North American Industry Classification System (NAICS), US Standard Industrial Classification (SIC)). A maximum of 10 new sources per infrastructure will be reviewed based on EMD's approved list:

- | | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Bank/Finance | Banks, financial institutions, credit unions |
| • Commercial/Industrial | Plants and facilities for chemicals, radiology or biological components, centers, co-ops, agriculture, livestock and malls/shopping centers, hotels/convention centers |
| • Communications | Television, telephone, radio and computer facilities, switching stations, satellite support facilities, transmission towers |
| • Electric Power | Electric generation stations, distribution facilities, transmission lines, utilities poles, buildings |
| • Emergency Services | Law enforcement, fire, local emergency operations centers, emergency responder stations, emergency medical services |
| • Government | Federal, Regional, State and Local government office building, courthouses, military installations (including reserve and national guard), foreign government offices and consulates |
| • Law Enforcement | Prisons, jails, correctional facilities, camps, reformatories |
| • Oil/Gas | Petroleum refineries, major gas/oil storage and shipment facilities, pumping stations, pipelines, control stations |
| • Public Facilities | Science research facilities, academic institutions, museums, schools |
| • Public Health | Hospitals, emergency medical centers, mental institution, rehab centers, care facilities |
| • Recreation | Sports arenas, auditoriums, theaters, parks, casinos, concert halls/pavilions |
| • Religious Facilities | Churches, temples, missions, centers, camps |
| • Transportation | Railheads/rail yards, interstate highways, tunnels, bridges, subways, airports (buildings, runways), bus terminals, bridges, ferries, truck terminals, air navigation aids, seaports (buildings, pavement, wharves) |
| • Water Supply | Water supply plants, water purification systems, water distribution systems, waste water plants, dams, reservoirs |
| • Environmental Concerns | Landfills, hazardous sites, |
| • EMD unique | <i>to be provided</i> |
| • Miscellaneous | Special events/interest, parades, religious services, festivals, celebrations, scenic tours, family planning clinics, alternate life style facilities, other large gathering places/events, trailer and mobile home parks, fairgrounds |

Note: Information generated by this task order will be used to develop the EMD GIS SDL Product Demonstration and Capture Plan, Task SDL2.



Use or disclosure of data contained on this sheet is subject to contract restrictions.

Task SDL1a, EMD GIS SDL Critical Infrastructure Resource Identification Deliverables

Critical Infrastructure list
New and/or updated feature database files (dbfs)

Task SDL1a, EMD GIS SDL Critical Infrastructure Resource Identification General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan.
EMD to review and approve EMD-critical infrastructure features list.
EMD to provide SAIC access to Michigan and EMD data resources, i.e., PowerFinder.
Costs valid for 30 days.
Incremental funding authorized.
Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates.

Task SDL1a EMD GIS SDL Critical Infrastructure Resource Identification Costs

SAIC Proposal: 01-0190-71-2003-174-SDL1a
Michigan State Police, EMD GIS SDL Critical Infrastructure Resource Identification
Approximate Period of Performance: 01 Oct 2002 – 31 May 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	4	\$313.36
	Team Leader/System Analyst	\$98.20	180	\$17,676.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Jr SW Eng/Web Designer	\$50.91	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	40	\$3,168.00
			Subtotal Hrs	224 \$21,157.36
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
	*estimated burdened rate		Subtotal	\$0.00
3	Labor, ODC and G&A		Total Price	\$21,157.36



Use or disclosure of data contained on this sheet is subject to contract restrictions.

EMD GIS SDL Critical Infrastructure Resource Development

Provide Engineering Services to identify critical infrastructure features and to create new and/or update existing SDL resources (information, shapefiles and imagery) to support the mission of EMD's emergency management, safety, hazard mitigation and homeland security.

Task SDL1b, EMD GIS SDL Critical Infrastructure Resource Development

SAIC will update the critical infrastructure SDL resources identified under Task SDL1a by creating new (geocoding) and/or merging existing shapefiles and imagery. Creation of new County level geocoded shapefiles. Imagery includes the creation of shapefile geo-located jpgs and 1m¹ gray-scale aerial photograph (ground resolution digital orthophoto (via EMD-provided DOQ and/or MicroSoft's TerraServer)) of each feature. SAIC will add shapefile dbf linkage to created imagery. SAIC will add these products to the EMD GIS SDL

- Bank/Finance
- Commercial/Industrial
- Communications
- Electric Power
- Emergency Services
- Government
- Law Enforcement
- Oil/Gas
- Public Facilities
- Public Health
- Recreation
- Religious Facilities
- Transportation
- Water Supply
- Environmental Concerns
- Miscellaneous (special events/interest)
- EMD unique
- Agency data

Task SDL1b, EMD GIS SDL Critical Infrastructure Resource Development Deliverables

New folders, shapefiles, layers files, jpgs and zips
Updated SDL holdings report, EMD GIS WebServices Home Page listings, style, palette and font

Task SDL1b, EMD GIS SDL Critical Infrastructure Resource Development Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan.
EMD to provide access to or copies of available georectified electronic 1m DOQs
Costs valid for 30 days.
Incremental funding authorized.
Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates.

¹ EMD-provided or public on-line information



Use or disclosure of data contained on this sheet is subject to contract restrictions.

Task SDL1b, EMD GIS SDL Critical Infrastructure Resource Development Costs

SAIC Proposal: 01-0190-71-2003-174-SDL1b
Michigan State Police, EMD GIS SDL Critical Infrastructure Resource Development
Approximate Period of Performance: 01 Dec 2002 – 31 July 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	6	\$470.04
	Team Leader/System Analyst	\$98.20	160	\$15,712.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Jr SW Eng/Web Designer	\$50.91	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	80	\$6,336.00
			Subtotal Hrs	246 \$22,518.04
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
			Subtotal	\$0.00
			*estimated burdened rate	
3	Labor, ODC and G&A		Total Price	<u>\$22,518.04</u>



Use or disclosure of data contained on this sheet is subject to contract restrictions

EMD Geographical Information System (GIS) Spatial Data Library (SDL) Updates**Task SDL3, EMD GIS SDL Updates, Set 1**

Provide engineering services to update the EMD GIS Spatial Data Library geospatial State and County level holdings (ArcView shapefiles and ArcGIS layers) with new State, Federal and governmental agency data; with converted ArcInfo and MapInfo coverages and with updated existing datasets. Breaking down any multiple feature files into single feature files, the merging of like, feature-type files and the linking of geospatial data to supporting documentation will occur under a future tasks, Task SDL4, SDL5 and SDL6 respectively.

Task SDL3a1, SDL New Geospatial Features, Set 1

The following new geospatial datasets will be process and added to the EMD GIS SDL.

- Census 2000 (AV32 format, 2514 zips, average 30 zips per County)
- MarPlot 2000 (ArcGIS8 format, 1226 zips, average 14 zipots per County)*

*Support for MarPlot, Cameo and Aloha

The process will consist of the creation of minimum of 4 new feature folders per County and State – 2 AV32 folders for Census 2000 AV32, MarPlot 2000 and 2 ArcGIS8 folders for same, the conversion of AV32 to ArcGIS8 and ArcGIS8 to AV32, unzipping and renaming of the files, creation of new legends and symbology (as required), jpg thumbnails and zip file and the population of the files into the appropriate SDL folder. SDL WebServices home pages, lists and links will be updated on the prototype and operational Web and DataServers.

Task SDL3a2, SDL ArcInfo/MapInfo Coverages, Set 1

The following new ArcInfo County coverages will be unzipped, converted and reprojected (decimals, Geographic Lat/Lon, NAD1983) to new ArcView shapefiles and ArcGIS layers. New County folders, feature symbology, filenames, legends, jpg thumbnails and zip files will be created. Resulting files will be added to the appropriate SDL folder.

- Michigan Framework, v2 May 2002 updates

Task SDL3a, EMD GIS SDL Updates, Deliverables

New folders, shapefiles, layers files, jpgs and zips
Updated SDL holdings report, EMD GIS WebServices Home Page listings, style, palette and font

Task SDL3a, EMD GIS SDL Updates, General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan
Costs valid for 30 days.
Incremental funding authorized.
Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates



Use or disclosure of data contained on this sheet is subject to contract restrictions.

Task SDL3a, EMD GIS SDL Updates, Costs

SAIC Proposal: 01-0190-71-2003-174-SDL3a

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Dec 2002 - 31 July 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	6	\$470.04
	Team Leader/System Analyst	\$98.20	160	\$15,712.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	100	\$7,920.00
			Subtotal Hrs	266 \$24,102.04
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
			*estimated burdened rate	Subtotal \$0.00
3	Labor, ODC and G&A		Total Price	\$24,102.04



Use or disclosure of data contained on this sheet is subject to contract restrictions.

EMD Geographical Information System (GIS) Spatial Data Library (SDL) Updates**Task SDL3b, EMD GIS SDL Updates, Set 2**

Provide engineering services to update the EMD GIS Spatial Data Library geospatial State and County level holdings (ArcView shapefiles and ArcGIS layers) with new State, Federal and governmental agency data; with converted ArcInfo and MapInfo coverages and with updated existing datasets. Breaking down any multiple feature files into single feature files, the merging of like, feature-type files and the linking of geospatial data to supporting documentation will occur under a future tasks, Task SDL4, SDL5 and SDL6.

Task SDL3b1, SDL New Geospatial Features, Set 2

The following new geospatial datasets will be process and added to the EMD GIS SDL.

- Great Lakes Information Network, GLINDA (AV32 format, UP and LP features)
boat ramps, managed areas, marinas, navigational and non-navigational locks and dams, environmentally sensitive areas, potential spill areas, spill areas fixed oil, special designate areas, surface water intakes and tribal land interests.
- NWI_24k (AV32 format, Natl Wetlands, 31 new Counties, requires reprojection)
- SSURGO_24k (MDNR, AV32 format, soil features, 19 new Counties, requires reprojection)
- NGS_pts_24k (MDNR/NOAA (Natl Geodetic Survey), AV32 format, requires reprojection)
- Minerals Ownership (MDNR, AV32 format, 5 new Counties, requires reprojection)

The process will consist of the creation of minimum of 4 new feature folders per County and State – 2 AV32 folders for Census 2000 AV32, MapPlot 2000 and 2 ArcGIS8 folders for same, the conversion of AV32 to ArcGIS8 and ArcGIS8 to AV32, unzipping and renaming of the files, creation of new legends and symbology (as required), jpg thumbnails and zip file and the population of the files into the appropriate SDL folder. SDL WebServices home pages, lists and links will be updated on the prototype and operational Web and DataServers.

Task SDL3b2, EMD GIS SDL Updates, Set 2, Deliverables

New folders, shapefiles, layers files, jpps and zips
Updated SDL holdings report EMD GIS WebServices Home Page listings, style, palette and font

Task SDL3b, EMD GIS SDL Updates, Set 2, General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan.
Costs valid for 30 days.
Incremental funding authorized.
Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates



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Task SDL3b, EMD GIS SDL Updates, Set 2, Costs

SAIC Proposal: 01-0190-71-2003-174-SDL3b

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Dec 2002 - 31 July 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	4	\$313.36
	Team Leader/System Analyst	\$98.20	120	\$11,784.00
	Program Manager	\$132.21	0	\$0.00
	Sr System/Communication Network Engineer	\$96.98	0	\$0.00
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	20	\$1,850.60
	Jr SW Eng/Web Designer	\$50.91	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	40	\$3,168.00
			Subtotal Hrs	184 \$17,115.96
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
			Subtotal	\$0.00
			*estimated burdened rate	
3	Labor, ODC and G&A		Total Price	<u>\$17,115.96</u>



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EMD Geographical Information System (GIS) WebServer Enhancements**Task WSS1, EMD GIS WebServer Enhancement Services**

Provide engineering services to analyze, plan and develop enhancement services to the EMD GIS prototype WebServer. These services will provide new and improve geospatial mapping and data management capabilities for the EMD GIS system administrator, GIS technician and the GIS user community (Local, County, District, State and Federal representatives) within the SEOC and remotely. The new services are to be developed using the data/document management and search tools provided by the ESRI GIS MapServices, SQL and cataloging toolsets, GroupWise and the MS toolsets (IIS, Professional Office, Windows2000, Explorer v6).

The EMD GIS WebServer design enhancement services will include:

Browser/HTML Services	Develop new designs to the EMD GIS Spatial Data Library (SDL) Home pages and user menus that will reduce the number of subject matter web pages to select and download geospatial, information, files and software products.
Query/Search and Retrieval Services	Design new capabilities to do key word or full text and filtered searches of available geospatial and geospatial support data.
Data Management Services	Expand the number of and access to additional geospatial and document data files by providing tools to easily catalog manage and update geospatial and data. Provide "news" capability on to inform users of new and/or changed geospatial data and services.
Administration Services	Provide a common set of user access and viewing tools similar to the MS and GroupWise system administration capabilities.
GeoSpatial Metadata Services	Provide capabilities to record and catalog geospatial data properties.
Geography Network Services	Provide links to other State agency, Federal, commercial and user community geospatial data and toolset web sites (scripts, extensions, templates) and EMD EM and mitigation digital project files.

Task WSS1, EMD GIS WebServer Enhancement Services Deliverables

Additional and/or new requirements added to the EMD GIS Operational WebServer Services Implementation task order (WSS2).

Graphic layout of the prototype enhanced EMD GIS Web and DataServer Home Page(s)
Diagram of the proposed EMD GIS Web and DataServer configuration
Temporary web access to EMD GIS WebServer

Task WSS1, EMD GIS WebServer Enhancement Services General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan
Costs valid for 30 days

Incremental funding authorized.

Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates



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Task WSS1, EMD GIS WebServer Enhancement Services Costs

SAIC Proposal: 01-0190-71-2003-174-WSS1

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Oct 2002 – 30 May 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	6	\$470.04
	Team Leader/System Analyst	\$98.20	140	\$13,748.00
	Program Manager	\$132.21	0	\$0.00
	Sr SystCommunication Network Engineer	\$96.98	40	\$3,879.20
	Jr System Engineer/Graphic Designer	\$50.91	40	\$2,036.40
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	60	\$4,752.00
			Subtotal Hrs	286 \$24,885.64
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$0.00	0	\$0.00
	Travel - Car Rental (x days, \$60/day)	\$0.00	0	\$0.00
	Travel - Motel (x nights)	\$0.00	0	\$0.00
	Travel - Meals (x days)	\$0.00	0	\$0.00
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$0.00	0	\$0.00
	Travel - Airport Parking and Fuel (x days, \$15.00/day)	\$0.00	0	\$0.00
	*estimated burdened rate		Subtotal	\$0.00
3	Labor, ODC and G&A		Total Price	<u>\$24,885.64</u>



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EMD Geographical Information System (GIS) WebServer Expansion Implementation

Task WSS2, EMD GIS WebServer Enhancement Services Implementation

Provide engineering services to update the operational EMD GIS Web and DataServers with the new Web services prototyped under Task WSS1.

- Install software patches and/or upgrades and enhancement services to Web and DataServer
- Upgrade server hardware as required and/or recommend upgrades and/or new items
- Perform clock synchronization
- Update ArcIMS operational instructions as required

Task WSS2, EMD GIS WebServer Enhancement Services Implementation Deliverables

Updated WebServer Home Page(s)
Revised ArcIMS v4 installation, backup, storage and archiving procedures

Task WSS2, EMD GIS WebServer Enhancement Services Implementation General Terms and Conditions

SAIC cannot begin work until Purchase Order confirmation is received from the State of Michigan.
Costs valid for 30 days.
Incremental funding authorized
Period of Performance dates listed under the "costs" section of this document are subject to change - based on the official contract confirmation and actual start work dates



Use or disclosure of data contained on this sheet is subject to contract restrictions.

Task WSS2, EMD GIS WebServer Enhancement Services Implementation Costs

SAIC Proposal: 01-0190-71-2003-174-WSS2

Michigan State Police, EMD GIS

Estimated Period of Performance: 01 Oct 2002 – 31 May 2003

1	SAIC Labor	Rate \$\$	Hours	Amount \$\$
	Program Control Analyst	\$78.34	4	\$313.36
	Team Leader/System Analyst	\$98.20	40	\$3,928.00
	Program Manager	\$132.21	0	\$0.00
	Sr SystCommunication Network Engineer	\$96.98	110	\$10,667.80
	Jr System Engineer/Graphic Designer	\$50.91	0	\$0.00
	Sr SW Engineer/Web Designer	\$92.53	0	\$0.00
	Programmer	\$61.13	0	\$0.00
	Computer Systems Engineer	\$79.20	0	\$0.00
			Subtotal Hrs	154
				\$14,909.16
2	Other Direct Costs (ODC)	*Rate \$\$	Quantity	Amount \$\$
	Travel - Airfare, Roundtrip	\$884.00	2	\$1,768.00
	Travel - Car Rental (4days, \$60/day)	\$144.5	2	\$289.00
	Travel - Motel (2 nights)	\$160.64	2	\$321.27
	Travel - Meals (4 days)	\$140.86	2	\$281.73
	Travel - Mileage reimbursement to/from airport (25 miles each way, \$.45/mi)	\$14.00	2	\$28.00
	Travel - Airport Parking and Fuel	\$55.50	2	\$111.00
	<i>*estimated burdened rate</i>		Subtotal	\$2,799.00
3	Labor, ODC and G&A		Total Price	<u>\$17,708.16</u>



Use or disclosure of data contained on this sheet is subject to contract restrictions.

STATE OF MICHIGAN
 DEPARTMENT OF MANAGEMENT AND BUDGET
 OFFICE OF PURCHASING
 P.O. BOX 30026, LANSING, MI 48909
 OR
 530 W. ALLEGAN, LANSING, MI 48933

CONTRACT NO. 071B1001606
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF VENDOR Science Applications International Corporation 4031 Colonel Glenn Hwy Beavercreek, OH 45431 <p style="text-align: right;">stephen.d.schultz@SAIC.com</p>	TELEPHONE (937) 431-4373 VENDOR NUMBER/MAIL CODE BUYER (517) 241-1647 Irene Pena
Contract Administrator: Dan Sibel <p style="text-align: center;">Computer Consultant to Develop and Populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police</p>	
CONTRACT PERIOD: From: May 16, 2001 To: May 15, 2004	
TERMS <p style="text-align: center;">N/A</p>	SHIPMENT <p style="text-align: center;">N/A</p>
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	
MISCELLANEOUS INFORMATION: The terms and conditions of this Contract are those of REQ #551R1000089, this Contract Agreement and the vendor's quote dated March 30, 2001. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence.	
Estimated Cost of this Contract: 1 st Year \$156,636.29 Total Contract Period Estimated Contract Cost: \$469,908.86	

THIS IS NOT AN ORDER: This Contract Agreement is awarded on the basis of our inquiry bearing the [REQ No. 551R1000089](#). A Purchase Order Form will be issued only as the requirements of the State Departments are submitted to the Office of Purchasing. Orders for delivery may be issued directly by the State Departments through the issuance of a Purchase Order Form.

All terms and conditions of the invitation to bid are made a part hereof.

FOR THE VENDOR:	FOR THE STATE:
Firm Name	Signature Irene Pena, Buyer
Authorized Agent Signature	Name Technology & Professional Services Division
Authorized Agent (Print or Type)	Title
Date	Date

CONTRACTUAL SERVICES TERMS AND CONDITIONS

I-A PURPOSE

The purpose of this Contract is to **develop and populate the Prototype Emergency Management GIS Engineering System for the Michigan State Police.**

Contract awarded from this solicitation will be the following type:

-- Part lump sum/fixed price, part unit price

I-B TERM OF CONTRACT

The State of Michigan is not liable for any cost incurred by the contractor prior to signing of this Contract by all parties. The activities in this Contract cover the period **May 16, 2001 through May 15, 2004.** The State fiscal year is October 1st through September 30th. The prospective Contractor should realize that payments in any given fiscal year are contingent upon enactment of legislative appropriations.

I-C ISSUING OFFICE

This Contract is issued by the State of Michigan, Department of Management and Budget (DMB), Office of Purchasing, hereafter known as the Office of Purchasing, for the State of Michigan, **State Police.** Where actions are a combination of those of the Office of Purchasing and **the Michigan State Police,** the authority will be known as the State.

The Office of Purchasing is the sole point of contact in the State with regard to all procurement and contractual matters relating to the services described herein. The Office of Purchasing is the only office authorized to change, modify, amend, alter, clarify, etc., the prices, specifications, terms, and conditions of this Contract. The OFFICE OF PURCHASING will remain the SOLE POINT OF CONTACT throughout the procurement process, until such time as the Director of Purchasing shall direct otherwise in writing. See Paragraph II-C below. All communications concerning this procurement must be addressed to:

Irene Pena, Buyer
Technical Acquisition Division
DMB, Office of Purchasing
2nd Floor, Mason Building
P.O. Box 30683
Lansing, MI 48909

I-D CONTRACT ADMINISTRATOR

Upon receipt at the Office of Purchasing of the properly executed Contract Agreement, it is anticipated that the Director of Purchasing will direct that the person named below or any other person so designated be authorized to administer the Contract on a day-to-day basis during the term of the Contract. However, administration of this Contract implies no authority to change, modify, clarify, amend, or otherwise alter the prices, terms, conditions, and specifications of

such Contract. That authority is retained by the Office of Purchasing. The Contract Administrator for this project is:

Dan Sibel
Michigan State Police
714 S. Harrison Rd.
East Lansing, MI 48823

I-E COST LIABILITY

The State of Michigan assumes no responsibility or liability for costs incurred by the Contractor prior to the signing of this Contract. Total liability of the State is limited to the terms and conditions of this Contract.

I-F CONTRACTOR RESPONSIBILITIES

The Contractor will be required to assume responsibility for all contractual activities offered in this proposal whether or not that Contractor performs them. Further, the State will consider the Prime Contractor to be the sole point of contact with regard to contractual matters, including but not limited to payment of any and all costs from this Contract. If any part of the work is to be subcontracted, responses to this contract should include a list of subcontractors, including firm name and address, contact person, complete description of work to be subcontracted, and descriptive information concerning subcontractor's organizational abilities. The State reserves the right to approve subcontractors for this project and to require the Contractor to replace subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the subcontractor to all provisions of the Contract.

I-G NEWS RELEASES

News releases pertaining to this document or the services, study, data, or project to which it relates will not be made without prior written State approval, and then only in accordance with the explicit written instructions from the State. No results of the program are to be released without prior approval of the State and then only to persons designated.

I-H DISCLOSURE

All information in the contractor's proposal and this Contract is subject to the provisions of the Freedom of Information Act, 1976 Public Act No. 442, as amended, MCL 15.231, *et seq.*

I-I ACCOUNTING RECORDS

The Contractor will be required to maintain all pertinent financial and accounting records and evidence pertaining to the Contract in accordance with generally accepted principles of accounting and other procedures specified by the State of Michigan. Financial and accounting records shall be made available, upon request, to the State of Michigan, its designees, or the Michigan Department of Auditor General at any time during the Contract period and any extension thereof, and for three (3) years from the expiration date and final payment on the Contract or extension thereof.

I-J INDEMNIFICATION

1. General Indemnification

The Contractor shall indemnify, defend and hold harmless the State from and against all lawsuits, liabilities, damages and claims or any other proceeding brought against the State by any third party (which for the purposes of this provision shall include, but not be limited to, employees of the State, the Contractor and any of its subcontractors), and all related costs and expenses (including reasonable attorneys' fees and disbursements and costs of investigation, litigation, settlement, judgments, interest and penalties), arising from or in connection with any of the following:

- (a) any breach of this Contract or negligence or intentional tortious act by the Contractor or any of its subcontractors, or by anyone else for whose acts any of them may be liable, in the performance of this Contract;
- (b) the death or bodily injury of any person or the damage, loss or destruction of any real or personal property in connection with the performance of this Contract by the Contractor, or any of its subcontractors, or by anyone else for whose acts any of them may be liable provided, and to the extent that the injury or damage was caused by the fault or negligence of the Contractor.
- (c) any act or omission of the Contractor or any of its subcontractors in their capacity as an employer in the performance of this Contract;
- (d) any claim, demand, action or legal proceeding against the State arising out of or related to occurrences, if any, that the Contractor is required to insure against as provided in this Contract.

2. Indemnification Obligation Not Limited

In any and all claims against the State by any employee of the Contractor or any of its subcontractors, the indemnification obligation under the Contract shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Contractor or any of its subcontractors under worker's disability compensation acts, disability benefits acts, or any other employee benefits acts. This indemnification clause is intended to be comprehensive. Any overlap in subclauses, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other subclause.

3. Continuation of Indemnification Obligation

The duty to indemnify will continue in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred prior to expiration or cancellation.

I-K LIMITATION OF LIABILITY

Except as set forth herein, neither the Contractor nor the State shall be liable to the other party for indirect or consequential damages, even if such party has been advised of the possibility of such damages. Such limitation as to indirect or consequential damages shall not be applicable for claims arising out of gross negligence, willful misconduct, or Contractor's indemnification responsibilities to the State as set forth in Section I-J with respect to third party claims, action and proceeding brought against the State.

Except as set forth herein, neither the Contractor nor the State shall be liable to the other party for indirect or consequential damages, even if such party has been advised of the possibility of such damages, and either party's maximum aggregate liability shall be limited to the maximum amount of the executed Contract. Such limitation as to in direct or consequential damages, and as to a party's maximum liability shall not be applicable for claims arising out of gross negligence, willful misconduct, or the Contractor's indemnification responsibilities to the State as set forth in Section I-J with respect to third party claims, actions and proceeding brought against the State.

I-L NON INFRINGEMENT/COMPLIANCE WITH LAWS

The Contractor warrants that in performing the services called for by this Contract it will not violate any applicable law, rule, or regulation, any contracts with third parties, or any intellectual rights of any third party, including but not limited to, any United States patent, trademark, copyright, or trade secret.

I-M WARRANTIES AND REPRESENTATIONS

1. The Contractor warrants that all services required to be provided under this Contract shall be furnished in a professional and workmanlike manner, by the Contractor, its subcontractors and its or their employees, having the skill commensurate with the requirements of this Contract.
2. The Contractor warrants that it or its subcontractor is the lawful owner or licensee of any software programs or other material used by the either in the performance of services called for in this Contract, and has all the rights necessary to convey to the State the unencumbered ownership or licensed use of any and all materials or deliverables required to be provided by the terms of this Contract.

I-N TIME IS OF THE ESSENCE

The Contractor agrees that time is of the essence in the performance of the Contractor's obligations under this Contract.

I-O KEY PERSONNEL

The State reserves the right to approve the Contractor's assignment of Key Personnel to this project and to recommend reassignment of personnel deemed unsatisfactory by the State.

The Contractor shall not remove or reassign, without the State's prior written approval any of the Key Personnel until such time as the Key Personnel have completed all of their planned and assigned responsibilities in connection with performance of the Contractor's obligations under this Contract. The Contractor agrees that the continuity of Key Personnel is critical and agrees to the continuity of Key Personnel. Removal of Key Personnel without the written consent of the State may be considered by the State to be a material breach of this Contract. The prohibition against removal or reassignment shall not apply where Key Personnel must be replaced for reasons beyond the reasonable control of the Contractor including but not limited to illness, disability, resignation or termination of the Key Personnel's employment.

I-P WORK PRODUCT AND OWNERSHIP

1. Work Products shall be considered works made by the Contractor for hire by the State and shall belong exclusively to the State and its designees, unless specifically provided otherwise by mutual agreement of the Contractor and the State. If by operation of law any of the Work Product, including all related intellectual property rights, is not owned in its entirety by the State automatically upon creation thereof, the Contractor agrees to assign, and hereby assigns to the State and its designees the ownership of such Work Product, including all related intellectual property rights. The Contractor agrees to provide, at no additional charge, any assistance and to execute any action reasonably required for the State to perfect its intellectual property rights with respect to the aforementioned Work Product.
2. Notwithstanding any provision of this Contract to the contrary, any preexisting work or materials including, but not limited to, any routines, libraries, tools, methodologies, processes or technologies (collectively, the "Development Tools") created, adapted or used by the Contractor in its business generally, including any all associated intellectual property rights, shall be and remain the sole property of the Contractor, and the State shall have no interest in or claim to such preexisting work, materials or Development Tools, except as necessary to exercise its rights in the Work Product. Such rights belonging to the State shall include, but not be limited to, the right to use, execute, reproduce, display, perform and distribute copies of and prepare derivative works based upon the Work Product, and the right to authorize others to do any of the foregoing, irrespective of the existence therein of preexisting work, materials and Development Tools, except as specifically limited herein.
3. The Contractor and its subcontractors shall be free to use and employ their general skills, knowledge and expertise, and to use, disclose, and employ any generalized ideas, concepts, knowledge, methods, techniques or skills gained or learned during the course of performing the services under this Contract, so long as the Contractor or its subcontractors acquire and apply such information without disclosure of any confidential or proprietary information of the State, and without any unauthorized use or disclosure of any Work Product resulting from this Contract.

I-Q CONFIDENTIALITY OF DATA AND INFORMATION

1. All financial, statistical, personnel, technical and other data and information relating to the State's operation which are designated confidential by the State and made available to the Contractor in order to carry out this Contract, or which become available to the Contractor in carrying out this Contract, shall be protected by the Contractor from unauthorized use and disclosure through the observance of the same or more effective procedural requirements as are applicable to the State. The identification of all such confidential data and information as well as the State's procedural requirements for protection of such data and information from unauthorized use and disclosure shall be provided by the State in writing to the Contractor. If the methods and procedures employed by the Contractor for the protection of the Contractor's data and information are deemed by the State to be adequate for the protection of the State's confidential information, such methods and procedures may be used, with the written consent of the State, to carry out the intent of this section.
2. The Contractor shall not be required under the provisions of this section to keep confidential, (1) information generally available to the public, (2) information released by the State generally, or to the Contractor without restriction, (3) information independently developed or acquired by the Contractor or its personnel without reliance in any way on otherwise protected information of the State. Notwithstanding the foregoing restrictions, the Contractor and its personnel may use and disclose any information which it is otherwise required by law to disclose, but in each case only after the State has been so notified, and has had the opportunity, if possible, to obtain reasonable protection for such information in connection with such disclosure.

I-R REMEDIES FOR BREACH OF CONFIDENTIALITY

The Contractor acknowledges that a breach of its confidentiality obligations as set forth in section I-Q of this Contract, shall be considered a material breach of the Contract. Furthermore the Contractor acknowledges that in the event of such a breach the State shall be irreparably harmed. Accordingly, if a court should find that the Contractor has breached or attempted to breach any such obligations, the Contractor will not oppose the entry of an appropriate order restraining it from any further breaches or attempted or threatened breaches. This remedy shall be in addition to and not in limitation of any other remedy or damages provided by law.

I-S CONTRACTOR'S LIABILITY INSURANCE

The Contractor shall purchase and maintain such insurance as will protect him/her from claims set forth below which may arise out of or result from the Contractor's operations under the Contract (Purchase Order), whether such operations be by himself/herself or by any subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- (1) Claims under workers' disability compensation, disability benefit and other similar employee benefit act. A non-resident Contractor shall have insurance for benefits payable under Michigan's Workers' Disability Compensation Law for any employee resident of and hired in Michigan; and as respects any other employee protected by workers'

disability compensation laws of any other State the Contractor shall have insurance or participate in a mandatory State fund to cover the benefits payable to any such employee.

- (2) Claims for damages because of bodily injury, occupational sickness or disease, or death of his/her employees.
- (3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his/her employees, subject to limits of liability of not less than \$300,000.00 each occurrence and, when applicable \$300,000.00 annual aggregate, for non-automobile hazards and as required by law for automobile hazards.
- (4) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom, subject to a limit of liability of not less than \$50,000.00 each occurrence for non-automobile hazards and as required by law for automobile hazards.
- (5) Insurance for Subparagraphs (3) and (4) non-automobile hazards on a combined single limit of liability basis shall not be less than \$300,000.00 each occurrence and when applicable, \$300,000.00 annual aggregate.

The insurance shall be written for not less than any limits of liability herein specified or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under the Indemnification clause of the Contract (Purchase Order).

BEFORE STARTING WORK THE CONTRACTOR'S INSURANCE AGENCY MUST FURNISH TO THE DIRECTOR OF THE OFFICE OF PURCHASING, ORIGINAL CERTIFICATE(S) OF INSURANCE VERIFYING LIABILITY COVERAGE. THE CONTRACT OR PURCHASE ORDER NO. MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING. These Certificates shall contain a provision that coverage's afforded under the policies will not be canceled until at least fifteen days prior written notice bearing the Contract Number or Purchase Order Number has been given to the Director of Purchasing.

I-T NOTICE AND RIGHT TO CURE

In the event of a curable breach by the Contractor, the State shall provide the Contractor written notice of the breach and a time period to cure said breach described in the notice. This section requiring notice and an opportunity to cure shall not be applicable in the event of successive or repeated breaches of the same nature or if the State determines in its sole discretion that the breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage or destruction of any real or tangible personal property.

I-U CANCELLATION

The State may cancel this Contract without further liability or penalty to the State, its departments, divisions, agencies, offices, commissions, officers, agents and employees for any of the following reasons:

1. Material Breach by the Contractor. In the event that the Contractor breaches any of its material duties or obligations under the Contract, which are either not capable of or subject to being cured, or are not cured within the time period specified in the written notice of breach provided by the State, or pose a serious and imminent threat to the health and safety of any person, or the imminent loss, damage or destruction of any real or tangible personal property, the State may, having provided written notice of cancellation to the Contractor, cancel this Contract in whole or in part, for cause, as of the date specified in the notice of cancellation.

In the event that this Contract is cancelled for cause, in addition to any legal remedies otherwise available to the State by law or equity, the Contractor shall be responsible for all costs incurred by the State in canceling the Contract, including but not limited to, State administrative costs, attorneys fees and court costs, and any additional costs the State may incur to procure the services required by this Contract from other sources. All excess reprourement costs and damages shall not be considered by the parties to be consequential, indirect or incidental, and shall not be excluded by any other terms otherwise included in the Contract.

In the event the State chooses to partially cancel this Contract for cause charges payable under this Contract will be equitably adjusted to reflect those services that are cancelled.

In the event this Contract is cancelled for cause pursuant to this section, and it is therefore determined, for any reason, that the Contractor was not in breach of contract pursuant to the provisions of this section, that cancellation for cause shall be deemed to have been a cancellation for convenience, effective as of the same date, and the rights and obligations of the parties shall be limited to that otherwise provided in the Contract for a cancellation for convenience.

2. Cancellation For Convenience By the State. The State may cancel this Contract for its convenience, in whole or part, if the State determines that such a cancellation is in the State's best interest. Reasons for such cancellation shall be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Contract services no longer practical or feasible, and (c) unacceptable prices for additional services requested by the State. The State may cancel the Contract for its convenience, in whole or in part, by giving the Contractor written notice 30 days prior to the date of cancellation. If the State chooses to cancel this Contract in part, the charges payable under this Contract shall be equitably adjusted to reflect those services that are cancelled.
3. In the event that funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available. The Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this project. If funds are not appropriated or otherwise made available, the State shall have the right to cancel this Contract at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of cancellation to the Contractor. The

State shall give the Contractor written notice of such non-appropriation or unavailability within 30 days after it receives notice of such non-appropriation or unavailability.

4. In the event the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor, is convicted of a criminal offense incident to the application for or performance of a State, public or private Contract or subcontract; or convicted of a criminal offense including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under State or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State, reflects upon the Contractor's business integrity.
5. In the event any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, section 5, and Civil Service Rule 4-6. Cancellation may be in whole or in part and may be immediate as of the date of the written notice to the Contractor or may be effective as of the date stated in such written notice.

I-V RIGHTS AND OBLIGATIONS UPON CANCELLATION

1. If the Contract is canceled by the State for any reason, the Contractor shall, (a) stop all work as specified in the notice of cancellation, (b) take any action that may be necessary, or that the State may direct, for preservation and protection of Work Product or other property derived or resulting from the Contract that may be in the Contractor's possession, (c) return all materials and property provided directly or indirectly to the Contractor by any entity, agent or employee of the State, (d) transfer title and deliver to the State, unless otherwise directed by the Contract Administrator or his or her designee, all Work Product resulting from the Contract, and (e) take any action to mitigate and limit any potential damages, or requests for Contractor adjustment or cancellation settlement costs, to the maximum practical extent, including, but not limited to, canceling or limiting as otherwise applicable, those subcontracts, and outstanding orders for material and supplies resulting from the canceled Contract.
2. In the event the State cancels this Contract prior to its expiration for its own convenience, the State shall pay the Contractor for all charges due for services provided prior to the date of cancellation and if applicable as a separate item of payment pursuant to the Contract, for partially completed Work Product, on a percentage of completion basis. In the event of a cancellation for cause, or any other reason under the Contract, the State will pay, if applicable, as a separate item of payment pursuant to the Contract, for all partially completed Work Products, to the extent that the State requires the Contractor to submit to the State any such deliverables, and for all charges due under the Contract for any cancelled services provided by the Contractor prior to the cancellation date. All completed or partially completed Work Product prepared by the Contractor pursuant to this Contract shall, at the option of the State, become the State's property, and the Contractor shall be entitled to receive just and fair compensation for such Work Product. Regardless of the basis for the cancellation, the State shall not be obligated to pay, or otherwise compensate, the Contractor for any lost expected future

profits, costs or expenses incurred with respect to Services not actually performed for the State.

3. If any such cancellation by the State is for cause, the State shall have the right to set-off against any amounts due the Contractor, the amount of any damages for which the Contractor is liable to the State under this Contract or pursuant to law and equity.
4. Upon a good faith cancellation, the State shall have the right to assume, at its option, any and all subcontracts and agreements for services and materials provided under this Contract, and may further pursue completion of the Work Product under this Contract by replacement contract or otherwise as the State may in its sole judgment deem expedient.

I-W EXCUSABLE FAILURE

1. Neither party shall be liable for any default or delay in the performance of its obligations under the Contract if and to the extent such default or delay is caused, directly or indirectly, by: fire, flood, earthquake, elements of nature or acts of God; riots, civil disorders, rebellions or revolutions in any country; the failure of the other party to perform its material responsibilities under the Contract (either itself or through another contractor); injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of such party; provided the non-performing party and its subcontractors are without fault in causing such default or delay, and such default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means, including disaster recovery plans. In such event, the non-performing party will be excused from any further performance or observance of the obligation(s) so affected for as long as such circumstances prevail and such party continues to use its best efforts to recommence performance or observance whenever and to whatever extent possible without delay provided such party promptly notifies the other party in writing of the inception of the excusable failure occurrence, and also of its abatement or cessation.
2. If any of the above enumerated circumstances substantially prevent, hinder, or delay performance of the services necessary for the performance of the State's functions for more than 14 consecutive days, and the State determines that performance is not likely to be resumed within a period of time that is satisfactory to the State in its reasonable discretion, then at the State's option: (a) the State may procure the affected services from an alternate source, and the State shall not be liable for payments for the unperformed services under the Contract for so long as the delay in performance shall continue; (b) the State may cancel any portions of the Contract so affected and the charges payable thereunder shall be equitably adjusted to reflect those services canceled; or (c) the Contract will be canceled without liability of the State to the Contractor as of the date specified by the State in a written notice of cancellation to the Contractor. The Contractor will not have the right to any additional payments from the State as a result of any excusable failure occurrence or to payments for services not rendered as a result of the excusable failure condition. Defaults or delays in performance by the Contractor

which are caused by acts or omissions of its subcontractors will not relieve the Contractor of its obligations under the Contract except to the extent that a subcontractor is itself subject to any excusable failure condition described above and the Contractor cannot reasonably circumvent the effect of the subcontractor's default or delay in performance through the use of alternate sources, workaround plans or other means.

I-X ASSIGNMENT

The Contractor shall not have the right to assign this Contract or to assign or delegate any of its duties or obligations under this Contract to any other party (whether by operation of law or otherwise), without the prior written consent of the State. Any purported assignment in violation of this section shall be null and void. Further, the Contractor may not assign the right to receive money due under the Contract without the prior written consent of the State Purchasing Director.

I-Y DELEGATION

The Contractor shall not delegate any duties or obligations under this Contract to a subcontractor other than a subcontractor named in the bid unless the State Purchasing Director has given written consent to the delegation.

I-Z NON-DISCRIMINATION CLAUSE

In the performance of any Contract or purchase order resulting herefrom, the bidder agrees not to discriminate against any employee or applicant for employment, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, physical or mental disability unrelated to the individual's ability to perform the duties of the particular job or position. The bidder further agrees that every subcontract entered into for the performance of this Contract or purchase order resulting herefrom will contain a provision requiring non-discrimination in employment, as herein specified, binding upon each subcontractor. This covenant is required pursuant to the Elliot Larsen Civil Rights Act, 1976 Public Act 453, as amended, MCL 37.2101, *et seq*, and the Persons with Disabilities Civil Rights Act, 1976 Public Act 220, as amended, MCL 37.1101, *et seq*, and any breach thereof may be regarded as a material breach of the Contract or purchase order.

I-AA MODIFICATION OF SERVICE

The Director of Purchasing reserves the right to modify this service during the course of this Contract. Such modification may include adding or deleting tasks which this service shall encompass and/or any other modifications deemed necessary. Any changes in pricing proposed by the Contractor resulting from the requested changes are subject to acceptance by the state. Changes may be increases or decreases.

IN THE EVENT PRICES ARE NOT ACCEPTABLE TO THE STATE, THE CONTRACT SHALL BE SUBJECT TO COMPETITIVE BIDDING BASED UPON THE NEW SPECIFICATIONS.

I-BB ACCEPTANCE OF PROPOSAL CONTENT

The contents of this document and the vendor's proposal will become contractual obligations. Failure of the successful bidder to accept these obligations may result in cancellation of the award.

I-CC REVISIONS, CONSENTS, AND APPROVALS

This Contract may not be revised, modified, amended, extended, or augmented, except by a writing executed by the parties hereto, and any breach or default by a party shall not be waived or released other than in writing signed by the other party.

I-DD ENTIRE AGREEMENT

This Contract shall represent the entire agreement between the parties and supersedes all proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

I-EE NO WAIVER OF DEFAULT

The failure of a party to insist upon strict adherence to any term of this Contract shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term, or any other term, of the Contract.

I-FF SEVERABILITY

Each provision of the Contract shall be deemed to be severable from all other provisions of the Contract and, if one or more of the provisions of the Contract shall be declared invalid, the remaining provisions of the Contract shall remain in full force and effect.

I-GG HEADINGS

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of this Contract.

I-HH RELATIONSHIP OF THE PARTIES

The relationship between the State and the Contractor is that of client and independent Contractor. No agent, employee, or servant of the Contractor or any of its subcontractors shall be or shall be deemed to be an employee, agent, or servant of the State for any reason. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

I-II NOTICES

Any notice given to a party under this Contract must be written and shall be deemed effective, if addressed to such party as addressed below upon (i) delivery, if hand delivered; (ii) receipt of a confirmed transmission by facsimile if a copy of the notice is sent by another means specified in this section; (iii) the third (3rd) Business Day after being sent by U.S. mail, postage pre-paid, return receipt requested; or (iv) the next Business Day after being sent by a nationally recognized overnight express courier with a reliable tracking system.

I-JJ UNFAIR LABOR PRACTICES

Pursuant to 1980 Public Act 278, as amended, MCL 423.231, et seq, the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled pursuant to section 2 of the Act. This information is compiled by the United States National Labor Relations Board.

A Contractor of the State, in relation to the Contract, shall not enter into a Contract with a subcontractor, manufacturer, or supplier whose name appears in this register. Pursuant to section 4 of 1980 Public Act 278, MCL 423.324, the State may void any Contract if, subsequent to award of the Contract, the name of the Contractor as an employer, or the name of the subcontractor, manufacturer or supplier of the Contractor appears in the register.

I-KK SURVIVOR

Any provisions of the Contract that impose continuing obligations on the parties including, but not limited to the Contractor's indemnity and other obligations shall survive the expiration or cancellation of this Contract for any reason.

I-LL GOVERNING LAW

This Contract shall in all respects be governed by, and construed in accordance with, the laws of the State of Michigan. Any dispute arising herein shall be resolved in the State of Michigan.

I-MM YEAR 2000 SOFTWARE COMPLIANCE

The Contractor warrants that services provided under this Contract including but not limited to the production of all Work Products, shall be provided in an accurate and timely manner without interruption, failure or error due the inaccuracy of Contractor's business operations in processing date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000, including leap year calculations. The Contractor shall be responsible for damages resulting from any delays, errors or untimely performance resulting therefrom.

I-NN CONTRACT DISTRIBUTION

The Office of Purchasing shall retain the sole right of Contract distribution to all State agencies and local units of government unless other arrangements are authorized by the Office of Purchasing.

I-00 STOP WORK

1. The State may, at any time, by written stop work order to the Contractor, require that the Contractor to stop all, or any part, of the work called for by this Contract for a period of up to 90 days after the stop work order is delivered to the Contractor, and for any further period to which the parties may agree. The stop work order shall be specifically identified as such and shall indicate that it is issued under this section. Upon receipt of the stop work order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the stop work order during the period of work stoppage. Within the period of the stop work order, the State shall either:
 - a) Cancel the stop work order; or
 - b) Cancel the work covered by the stop work order as provided in the cancellation section of this Contract.

2. If a stop work order issued under this section is canceled or the period of the stop work order or any extension thereof expires, the Contractor shall resume work. The State shall make an equitable adjustment in the delivery schedule, the contract price, or both, and the Contract shall be modified, in writing, accordingly, if:
 - a) The stop work order results in an increase in the time required for, or in the Contractor's costs properly allocable to the performance of any part of this Contract; and
 - b) The Contractor asserts its right to an equitable adjustment within 30 days after the end of the period of work stoppage; provided, that if the State decides the facts justify the action, the State may receive and act upon a proposal submitted at any time before final payment under this Contract.

3. If the stop work order is not canceled and the work covered by the stop work order is canceled for reasons other than material breach, the State shall allow reasonable costs resulting from the stop work order in arriving at the cancellation settlement.

4. If a stop work order is not canceled and the work covered by the stop work order is canceled for material breach, the State shall not allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop work order.

5. An appropriate equitable adjustment may be made in any related contract of the Contractor that provides for adjustment and is affected by any stop work order under this section. The State shall not be liable to the Contractor for loss of profits because of a stop work order issued under this section.

This work plan identifies the processes required to install, test, operate and maintain the EMD GIS. This plan will also be used to provide periodic status of these activities.

Phase II, Develop EMD GIS Prototype

Phase II of the EMD GIS development involves the generation and validation of a prototype EMD GIS. The prototype approach will provide EMD with “proof of concept” information. This information will assist EMD in planning the course of action in continuing the development of the GIS, allocation of resources to support the GIS and justification of costs and services required to complete the installation and operate the GIS.

Phase II, Task A1, Install, Test and Validate Prototype EMD GIS

Activities include the preparation of acquisition documentation; provide assistance in ordering the hardware, operating system and software¹; requesting and acquiring baseline Michigan Framework datasets²; monitoring these acquisitions until received; and installation, testing and Proof of Concept validation of the prototype EMD GIS system on existing SAIC assets.

Note: EMD will need to provide acquisition directions, information and forms and determine server and workstation peripheral hardware products, quantities and vendor(s). EMD will assist in obtaining Michigan Framework datasets if agencies are not responsive to our requests.

Installation includes the setting up of equivalent prototype hardware servers and workstations and the loading of operating system, application software and Framework datasets³ and connecting the hardware to intra- and inter-net local area, wide area and secured network(s). Testing the inoperability of these components as a total system configuration will also be accomplished.

Validation of the prototype EMD GIS (Proof of Concept) includes both the physical and operational configurations. Tests will be conducted on of the interoperability between all hardware components, between software components, between hardware and software components and intra- and inter-communications and security (with MSP). Validation also includes testing the systems' physical memory, storage, footprint, heating, ventilation and air-conditioning (HVAC) and power requirements. The SQL and relational database application product recommendation will also be provided during this phase.

Note: EMD and MSP will need to support the networking and security validations.

¹ The SDE Oracle and SQL software product determination will not be known until the prototype system has been tested and validated

² Conversion of datasets not in ArcView format and extraction of Michigan information from the CATS datasets will occur under Phase II, Task C1.

³ Anticipate that the receiving, recording and loading of Framework datasets will be ongoing and not all datasets will be available or required to be loaded for validation.

Phase II, Task A2, Re-Install and Test EMD GIS

Activities include supporting EMD GIS hardware vendor installation at the SEOC, dismantling of the EMD GIS prototype from SAIC assets, reinstalling and testing the EMD GIS on EMD assets at the SEOC.

Note: EMD will need to provide at least 1, 30-amp circuit (2 circuits are recommended) in the SEOC computer room and provide adequate HVAC for all equipment.

Phase II, Task B1, Develop EMD GIS Operating Procedures (Draft and Final)

Operating procedures are typically started during system development and testing processes and refined during the system operations and maintenance processes. These operating procedures are also usually driven by established business rules and operating procedures (resources, resource allocations and availability, schedules, hours of operation).

Activities under this task include the development of draft and final EMD GIS computer-related operating procedures and the identification of resources required to support system operations, users, data and configuration management, and overall system management for normal, after hours and emergency operations. Procedure content will be based on information obtained during the Phase I Needs Analysis and Phase II's prototype EMD GIS development and information obtained from EMD SEOC.

Note: EMD needs to provide existing operations information (documentation and/or information) on the Compaq 2500 server and existing computer related operating procedures and/or provide point of contact knowledgeable in existing and/or planned computer operations for EMD and the SEOC.

Phase II, Task B2, EMD GIS Baseline Data

Activities include the collection, cataloging, and validation of the datasets that will establish the baseline EMD GIS.

The Michigan Geographical Framework baseline digital datasets will be obtained from the Michigan Information Center, Department of Natural Resources and Department of Transportation. The datasets will be inventoried and catalogued. The cataloging will include information required by GIS data standards⁴. If the required information is not available from the data source agency, a request will be made to that agency to provide the needed information. The upkeep of catalog information will be provided under Phase IV.

Note: Will need EMD to intercede, if, an agency does not respond to the dataset request.

⁴ Spatial Data Transfer Standard (SDTS) formerly known as Federal Information Processing Standard (FIPS) 173.

Digital datasets files will be prepared (unzipped) and loaded on the EMD GIS in a structured manner - alphabetically by county, by data format (extension) in hierarchical folders. Folder and file information will be added to the cataloging information. Note: Conversion of data into ArcView format will occur under Phase II, Task C2.

Once loaded, each file will be examined for content⁵ and usability. This examination will inventory the data obtained, open the files to identify the data content (tables, lists, text, file size) and verify ArcView, ArcIMS and MapObject's ability to read, query, save and store the data. The inventory will be used to develop the baseline EMD GIS metadata and data dictionary that will be developed and maintained under Phase IV.

The EMD GIS-related information collected during the needs analysis will be compared with the baseline data inventory to identify and develop a baseline EMD GIS master data list. This list will include entities, attributes and spatial object type (line, polygon, footprint, node, text). This list will be used to assist in the preparation of the systems data management operating procedures and will be included in the updated Concept of Operations provided under Phase IV.

Any Framework and application datasets determined to be unusable will be documented describing the issue(s) and provided to EMD. Information that was identified during the needs assessment but not provided by the baseline datasets will be annotated – marked for updating in the Concept of Operations documentation under Phase IV.

Phase II, Task C1, Develop EMD GIS Baseline Database

Activities include the identification, creation and linking of data tables, text and objects in a hierarchical structure. The components of the EMD GIS baseline database include labels, entities, attributes, tables, fields and records, datasets, layers and features as well as object naming conventions, relationships and data file categories (text, graphics, image, spatial (raster or vector), midi).

This development process also involves quality control checking, editing and correction activities and linking attribute tables to EMD GIS layers. Work culminates with the loading of the data file into a "master" library/repository.

Information gained from this development will support the development of data and configuration management operating procedures.

Phase II, Task C2, Develop EMD GIS Baseline Data Rules

Activities include the identification of products that can be produced with the baseline data and the identification of the color schemes, symbols, line weights, feature themes and product sizes and publication/reproduction rules to support these products. The "rules" information will support the development of data and configuration management procedures and included therein. Data rules are typically established for the following example items:

⁵ Accuracy and currency are the responsibility of the agency that provided the dataset for the Framework.

Addresses
Borders
Colors
Font and font libraries
Geocoding
Graphic file size (drawing size)
Graphic units (resolution and scale - inches, meters, 1=??)
Labels
Levels/layers
Line styles/types (solid, dotted, hidden, viewing plane, dash-dot, stitch, dash-dot-dot, centerline, phantom).
Line weights/thickness
Map projections
Media and media format (electronic and hard copy)
Names
Origin (x, y, lat, lon)
Plot files
Plot file extensions
Reference Files (overlays)
Scale
Symbols (fill, pen, marker, color, feature)
Tables and table structure
Text - size, format, placement, font, color,
Themes
Title blocks

Phase III, Develop EMD GIS Digital Interfaces

This phase of the EMD GIS development includes the identification and design of digital interface technologies that will enhance the normal operational capabilities of the EMD GIS and improve the response time and data accuracy of emergency and disaster data collection, analysis, document preparation and reporting.

Digital interface technologies include the development of a EMD GIS World Wide Web (WWW) home page to support the viewing, querying, reporting and updating of GIS-related databases; the development of field input Global Positioning Satellite (GPS) data reporting and status updating and the development of aerial imagery mapping to landbase data files.

Phase III, Task A, Develop EMD GIS WWW Home Page

The WWW EMD GIS home page will be an extension of the existing EMD home page. The WWW digital capabilities will include: the ability to enter (input) information collected during emergencies and disasters on the appropriate form, to download this data into the proper format for updating and/or adding GIS data; the ability to query GIS data for information; the ability to download GIS data and provide a means to provide on-line status information. The WWW home page will be maintained under Phase IV.

Phase III, Task B, Define EMD GIS GPS Technologies

The EMD GIS GPS technology development will support two separate yet related functions: hand-held field and aerial/marine emergency and disaster data collection and reporting. The EMD GIS GPS requirements definition will be accomplished in 3 subtasks - a requirement's definition task, a technology (software/hardware) solution analysis followed by a GPS technology acquisition and development approach recommendation. The development will involve additional aerial and marina GPS technical support and facilitation services addressed under Phase V.

Phase III, Task C, Determine EMD GIS Image Technologies

The EMD GIS image technologies involves the integration and use of aerial imagery and photographs provided by the Michigan State University's Center for Remote Sensing Department and the department's LandScan Viewer toolset. This task will be accomplished in 3 subtasks – technology overview, requirement's definition and project management during development. MSU will provide an overview of its GIS responsibilities for MIC relating to the 'imagery' project and its existing and planned capabilities. SAIC will facilitate a needs assessment between EMD and MSU; document EMD's 'imagery' requirements in work plan format and provide EMD project management support during the development. Integrating the LandScan technologies with the EMD GIS will occur under Phase V.

Phase IV, Operate and Maintain EMD GIS

EMD will require contractor support services to augment existing computer system operations and manpower to keep the EMD GIS system running efficiently and to provide GIS user assistance. The additional support services includes periodic system operations maintenance; WWW home page management; publicizing news about the system and its projects; updating and producing GIS documentation; maintaining system metadata and data dictionary; monitoring Framework and Michigan GIS User information; providing EMD GIS Framework updates to MIC, users and special requests and obtaining, converting, formatting and loading new and/or updating datasets. These tasks may be considered as separate taskings.

Phase IV, Task A, Develop and Publish EMD GIS News

Activities include the development, publication, dissemination and maintenance of EMD GIS newsletter type publication. News will include information about the EMD GIS such as software upgrades, new or revised procedures, metadata and data dictionary information, training, GIS activities and projects. The news format may be a periodic newsletter, email or information posted on the EMD GIS WWW home page. A list of potential GIS news recipients will be developed.

Phase IV, Task B, Develop and Maintain EMD GIS Documentation

Activities include the development and maintenance of the EMD GIS system and data documentation. System documentation includes the formatting, publishing, dissemination and maintenance of EMD GIS documentation such as operating procedures, user instructions, scripts and training materials.

Phase IV, Task C, Maintain EMD GIS WWW Home Page

Activities include the maintenance and integration of and providing enhancements to the EMD GIS WWW home page.

Phase IV, Task D, Provide EMD GIS System Maintenance

Activities include the maintenance of GIS datasets; monitoring Michigan Framework and user projects (includes Federal and Michigan GIS Framework State, Local and Regional agencies); providing⁶ EMD GIS Framework data to MIC and users and for non-Framework requests; monitoring the system's memory and storage capacities and system usage; informing EMD if and when system upgrades should occur and providing backup capabilities and data storage as requested.

Note: EMD would provide the daily and routine operating maintenance. EMD is responsible for approving "non-Framework requests" for datasets and information.

⁶ Providing includes cutting CDs, forwarding digital files

GIS database as well as its metadata. As data elements and objects are added to the baseline, information will be added to the dictionary.

Phase IV, Task H, Obtain, Convert, Load and Maintain EMD GIS Data and Datasets

Activities include the search for and notification of data that could be added to the EMD GIS that will enhance emergency management, disaster preparedness and mitigation operations. Once determination is made that the data is of value (EMD approval), the data will be acquired, cataloged, converted and loaded into the EMD GIS database. Procedures to perform these activities will be developed and included in the data management operating procedures.

Phase V, Provide EMD GIS Technical Services

Phase V of the EMD GIS development provides EMD with technical support services, as required. As services are requested, a draft task plan and estimate of costs will be prepared and provided to EMD.

Technical services include, but not limited to:

- On-call "help desk"
- Data collection and validation
- Zip Code addressing and property/parcel addressing
- Ortho development
- Digitizing, scanning, seaming, compression, attribution, conflation, rectification
- Data conversion, geocoding, geo-referencing and data input
- Imagery analysis and conversion (includes satellite imagery)
- GPS
- Studies and analysis
- Attend meetings – representing EMD GIS
- Prepare and provide briefings
- Programming
- Product development
- Documentation generation
- Data repository and warehousing
- Hardware and software configuration and installation
- Systems integration
- Web services
- Systems engineering
- Training

On-call "help desk" support services include technical expertise support on GIS hardware, software, applications and networks and systems installation, testing, integration, operations and maintenance.

System support services include technical expertise support on GIS hardware, software, applications and networks; systems installation, testing, integration, operations and maintenance; data collection (field operations) and validation, conversion, geocoding, input; product and documentation generation.

Data collection and validation services includes researching for, acquiring (hard copy, digital, fieldwork) and verifying the accuracy and currency of information.

Data conversion, geocoding and data input services includes scanning and/or digitizing existing hardcopy geographic data and conversion of raster-to-vector, conversion from one coordinate system to another, creation of new tables and datasets by combining existing data and inputting datasets into the EMD GIS.

Data compression services include the processes and software applications, i.e., Mr Sid, required to reduce the size of the EMD GIS datasets and documentation.

Imagery analysis and conversion services include the review of photo and satellite imagery data and providing recommendations and/or services to use/convert the data.

GPS services include field collection of GIS data and integration of GPS technology integration with the EMD GIS.

Studies and analysis services include recommendations of EMD GIS enhancements of imagery, data collection and remote and off-site internet technologies; hardware, software and applications; user services and data warehousing (AKA clearing house).

GIS programming services include the development of GUI interfaces, on-line forms, datasets, applications, scripts/extensions.

Product development services includes the creation of new and/or the enhancing existing EMD GIS products.

Documentation generation services include the production of such as maps, charts, diagrams, charts, visual aids, brochures, newsletters, videos, CDs, and publications such as operating procedures, manuals and workbooks.

Data repository and warehousing services include the storage and distribution of EMD GIS datasets and documentation.

Hardware and software configuration and installation services include the acquisition, installation, testing and integration of hardware, software, applications, networking capabilities.

Web services include the hosting and maintenance of intra- and internet sites that are secured and maintained.

Hardware and software configuration and installation services include the analysis, identification of components, design of new an/or upgrading of existing computer capabilities and identification of the services required to install, test, integrate and operate the configuration.

System engineering services include the design and evaluation of new applications, methodologies and techniques, conducting needs assessments, developing guidelines and operating policies and procedures and standards impact analyses.

Training includes the development of training courses and training materials; conducting training courses and workshops and producing and distributing training materials.

General Tasks

Prepare and Deliver EMD GIS Development Documentation

The work to be performed under this task is the preparation (formatting), publication and delivery of task documentation and the updating of the Concept of Operations provided under Phase I, Task 1b. Deliverables by phase includes:

- Phase II, Task A1, acquisition documentation
- Phase II, Task A1, SQL and relational database recommendation
- Phase II, Task B2, master data list
- Phase II, Task C1, baseline database (loaded on system)
- Phase II, Task C2, products list (update to Concept of Operations)
- Phase III, Task A, WWW home page (loaded on system)
- Phase III, Task B, GPS technology recommendation
- Phase III, Task C, 'imagery' requirements and LandScan Work Plan
- Phase IV, Task A, news format and recipient list
- Phase IV, Task B, operating procedures, user instructions, scripts and training materials
- Phase IV, Task E, training course documentation and training materials
- Phase IV, Task F, FGDC compliant metadata
- Phase IV, Task G, data dictionary
- Phase IV, Task H, new datasets (loaded on system)