Project Proposal No: ####

Project Proposal
Geospatial Core Facility

1) Project Details

a) Project Name:
b) Departments involved in the project:
c) Date Submitted:

2) Project Sponsor(s)

a) Name: Email:
b) Department:

c) Name: Email:
d) Department:

3) Project Description (what you want to do)

a) **Summary**—Please provide a high-level overview of the project, including the overall goals of the effort.
b) **Target Audience**—*Who is this project geared toward? Are there other potential end-users of the project deliverables other than the target audience?*

4) Project Justification (why you want to do this)

a) **Benefits**—*Please briefly describe the expected benefits of the project. Benefits might include contribution to ongoing or future research, creation of course material, etc.*

5) Project Monitoring & Reporting

a) **Status**—*How often should project status updates be given?*
b) **Success**—*How will success of the project be measured?*

6) Timeline

a) **Duration**—*Please estimate in weeks or months the approximate duration of the project.*
b) **Milestones**—*Are there specific milestones or dependencies that need to be incorporated into project planning?*

7) Resource Requirements

a) **Costs**—*To the best of your ability, estimate the requisite capacity in labor hours for both initial deliverables and recurring maintenance or updates.*
i. Estimated labor hours:

b) Equipment—*From the list below, please indicate which GCF resources you anticipate utilizing for this project*

GCF Personnel Expertise

☐ ***Map Creation*** *– Creation of static or interactive maps for reports, papers, publications, websites, and more.*

☐ ***Data Acquisition and Processing*** *– Identification and acquisition of GIS data tied to the project. Services also include post-processing of primary data collected by the GCF or a third-party.*

☐ ***Geospatial Analysis*** *– Analysis of project data, including advice on project approach and methodology related to relevant geospatial project elements.*

Uncrewed Aerial Vehicles (UAVs or drones)

☐ ***Vision Aerial Vector***[1] *– a heavy payload hexacopter enabled with Real Time Kinematics (RTK – high locational accuracy) and has a 5 kg payload capacity, a flight time of 40 minutes, and can cover up to 25km.*

☐ ***Vision Aerial Switchblade*** *– a medium payload tricopter with a 2 kg capacity, a flight time of 20 minutes, and can cover up to 16 km.*

☐ ***DJI Matrice 210***[2] *– a medium payload drone with a 1.5 kg capacity, a flight time of 15 minutes, and can cover 15 km. This platform has a 20.8 MP RGB camera.*

☐ ***DJI Phantom 4 RTK*** *– a high positional accuracy drone that can be used for high resolution mapping and photogrammetry in the visible spectrum.*

UAV Sensors

☐ ***LiDAR*** *– Green Valley LiAir V70 has a wavelength of 905 nm, scan rate of 240,000 pts/s and a vertical accuracy of 2 cm (compatible with all drone platforms).*

☐ ***Hyperspectral*** *– Resonon Pika IR-L is a lightweight and compact Near-Infrared (925-1,700 nm) imager (Vision Aerial drones only).*

☐ ***Multispectral*** *– Micasense RedEdge with Five Spectral Bands (Red, Green, Blue, Red, Red Edge, NIR) (Vision Aerial drones only) .*

☐ ***RGB Cameras*** *– a Sony a6400 with 24 MP resolution (Vision Aerial drones only).*

Global Navigation Satellite Systems (GNSS)

☐ ***Emlid*** *– RS2 units that provide two-centimeter accuracy with post processing.*

☐ ***Septentrio PolaRx5*** *– rugged, research grade GNSS measurements with sub-centimeter accuracy.*

[1] *Vision Aerial is approved by the Departments of Commerce and Homeland Security, so there are no limitations to federal sponsors.*

[2] *DJI is not approved by the Departments of Commerce and Homeland Security.*

Computing

☐ ***High Performance Computing*** *– virtualized open-source environment with 100 concurrent users seats available with 800 CPU cores and 3TB of memory and 8 CPUs and 32GB of memory to each user.*

☐ ***Windows Geospatial Workstation*** *– virtualized Windows workstation optimized for geospatial analysis and visualization with 32 CPUs and 8 GPUs. Full suite of open-source and licensed software.*

☐ ***File Storage*** *– 32 TB of redundant storage.*

8) Projected Budget

Other Costs			
Cost Type	**One-Time Cost**	**Recurring Cost per Year**	**Explanation**
Sum:			
Total Cost:			

APPENDIX 1 – Scope of Work