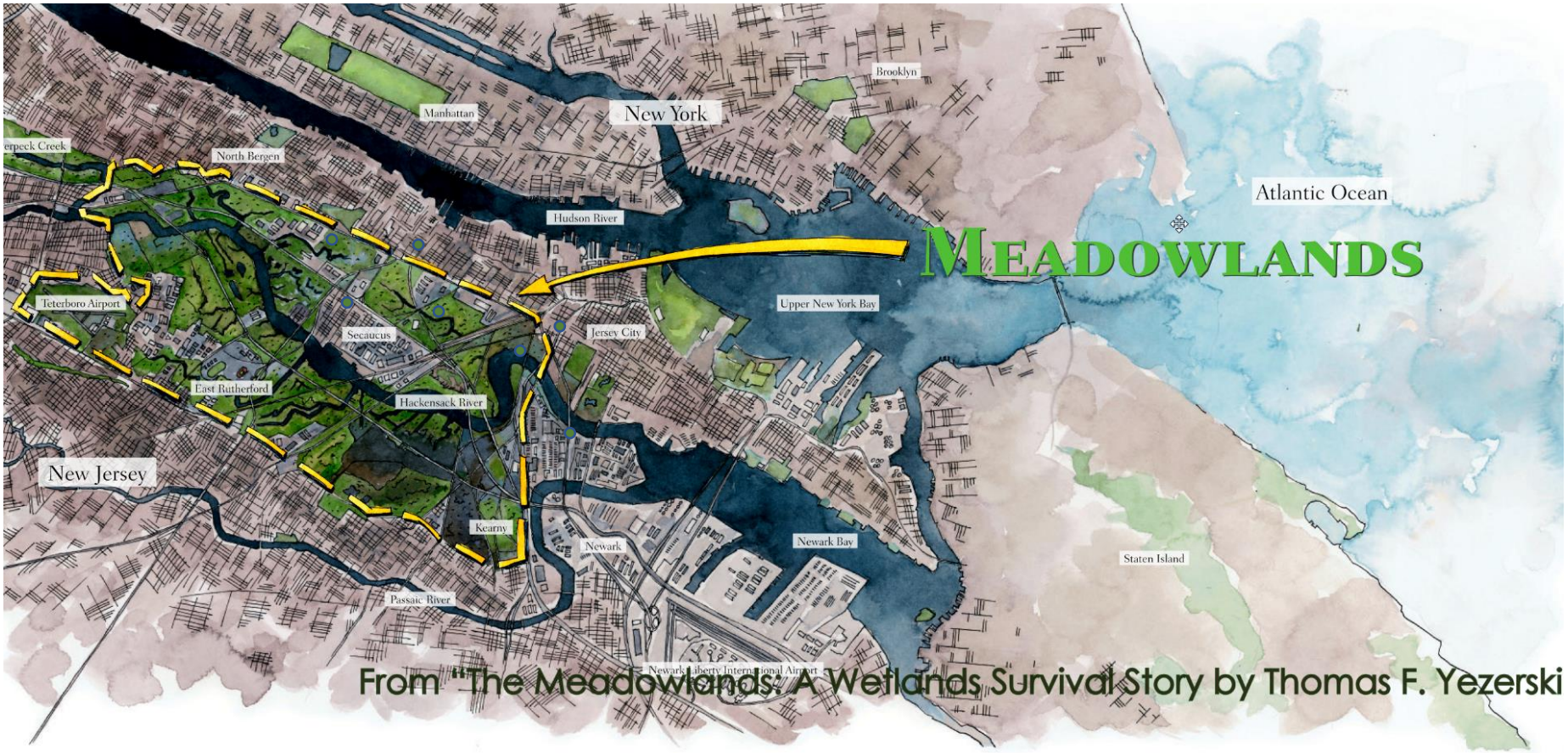
Request For Proposals:
Lidar Acquisition of the Hackensack Meadowlands District

Mandatory Pre-Bid Meeting

NJSEA – MERI, December 28, 2021, via Zoom

The Meadowlands of New Jersey



From "The Meadowlands: A Wetlands Survival Story by Thomas F. Yezerski

Located in Bergen and Hudson County, NJ

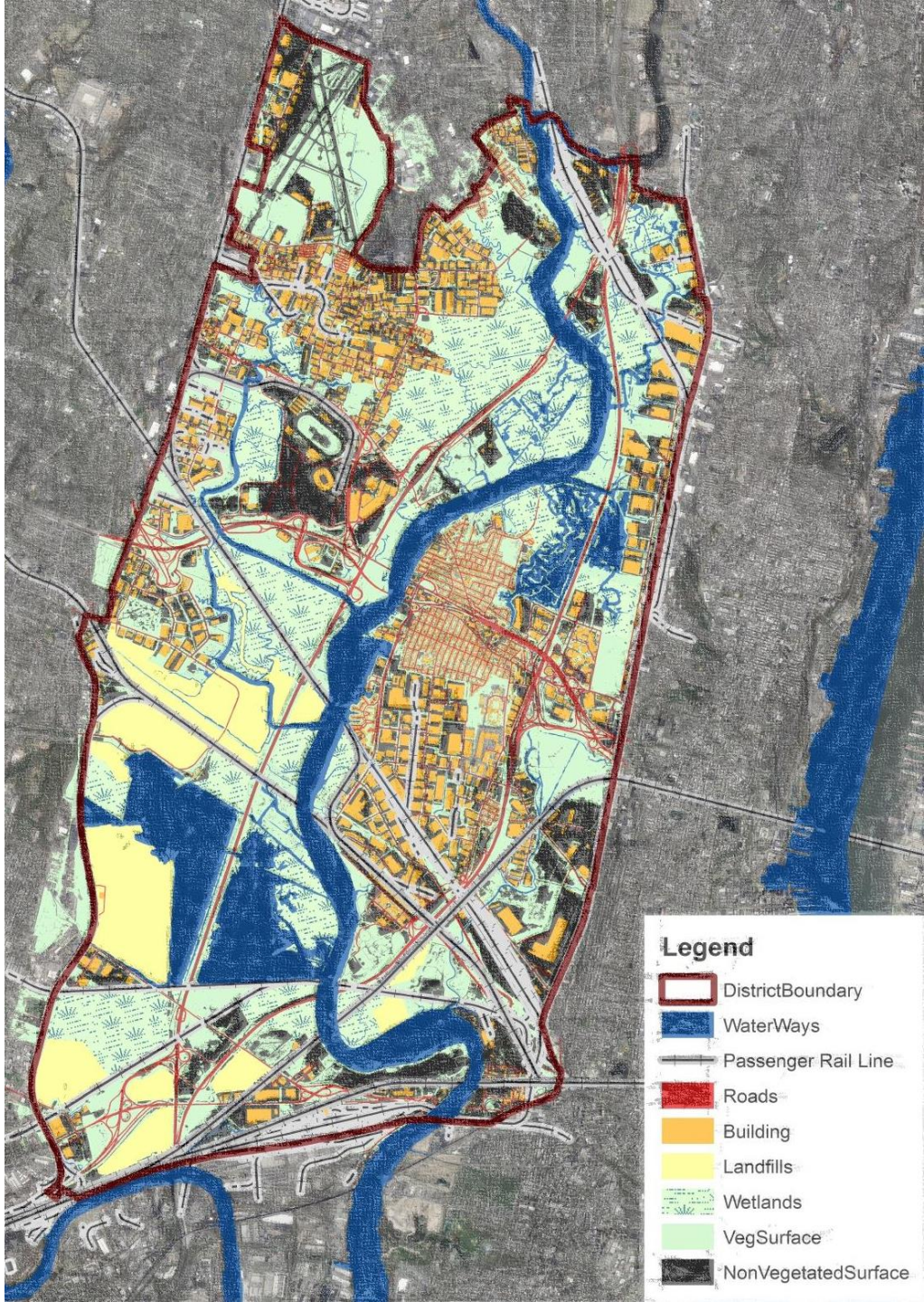
One of the largest remaining continuous wetland complexes

Integral part of the Hudson-Raritan Estuary

8400 acres of urban wetlands

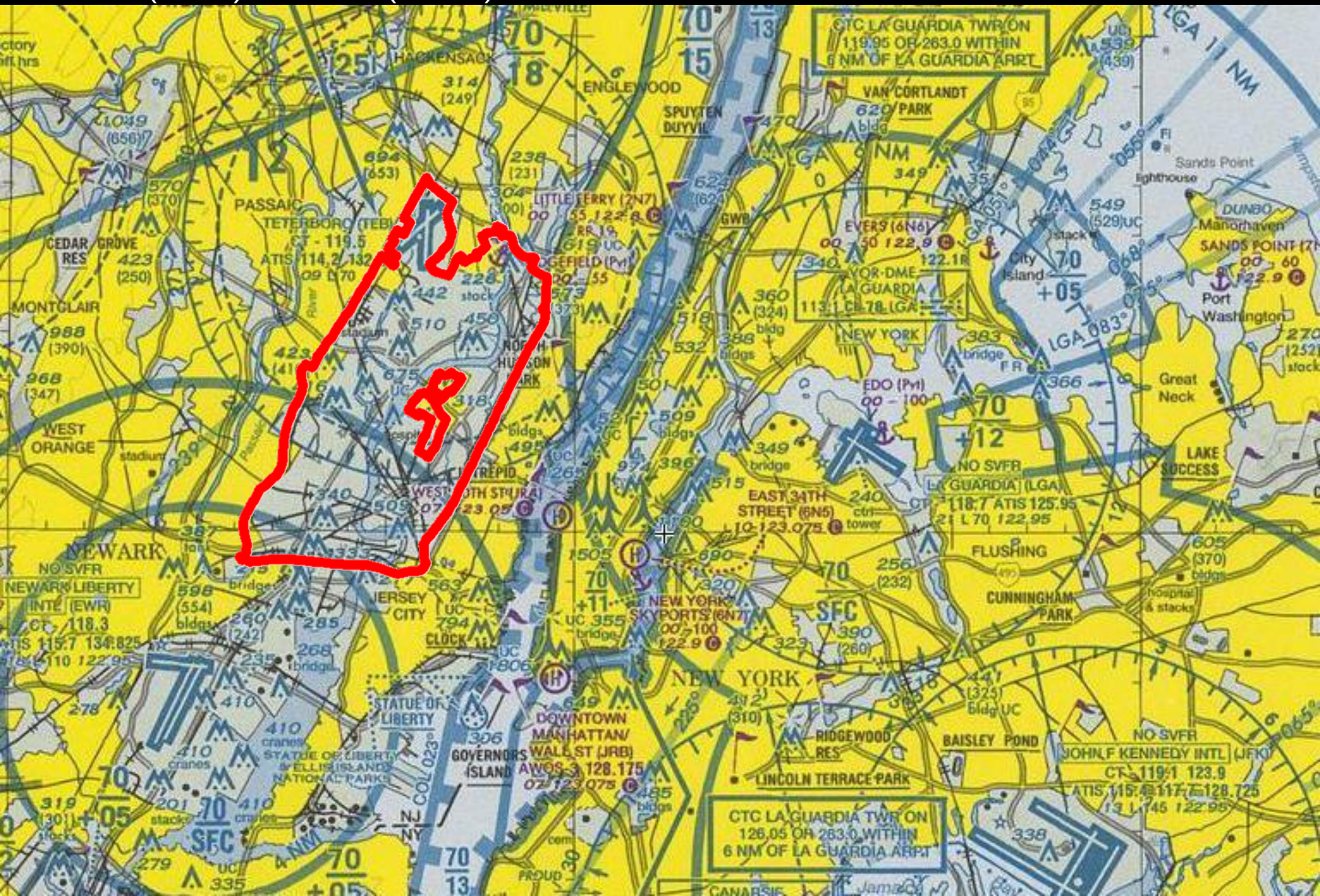
Mixed landuse

Perfect location for pilot enhancement projects



Meadowlands Airspace

Teterboro (KTEB) & Newark (KEWR)



NJSEA's Mission

The NJSEA is the regional planning and zoning agency for the 30.4-square-mile Hackensack Meadowlands District

Its mission is to uphold the three-fold mandate to provide for orderly development of the region, to provide facilities for the sanitary disposal of solid waste, and to protect the delicate balance of nature.

MRRI's Mission

"Our mission is to generate the knowledge and predictive understanding necessary to sustain and conserve the Hackensack Meadowlands Estuary and through scientific endeavor foster the next generation of earth and environmental scientists."

Scope of Work: The Hackensack Meadowlands District

Located in Bergen and Hudson County, NJ

30.4 square-mile area

Borders:

- U.S. Route 46 on north,
- U.S. Routes 1&9 (Tonnelle Avenue) and the freight rail line owned by Norfolk Southern and CSX Corp. on the east,
- the Port Authority Trans-Hudson (PATH) commuter rail lines and Pulaski Skyway on the south, and
- State Route 17, the Passaic Valley rail line, and the Kingsland rail line on the west.

Project specific requirements

- a full flight over the District including a 4,000 foot buffer area from the District border
- the LiDAR flight shall be acquired under leaf off conditions.
- within plus/minus 2 hours from low tide

Future Use of Data

The NJSEA will use LiDAR data to support a Geographic Information System (GIS), in areas such as

- municipal emergency management,
- flood risk assessment
- watershed modeling,
- wetlands assessment,
- utility maintenance/mapping,
- sea level rise modelling
- shoreline erosion
- wetland mitigation, monitoring and environmental studies related to the Meadowlands Research and Restoration Institute's (MRRI) research activities.

Expectations

i. Cover page;

ii. Title page on company letterhead indicating the name, address, telephone and fax numbers of the respondent, as well as the primary contact person and their email address.

iii. Narrative of the proposed project;

iv. Detailed scope of work;

v. Project schedule with detailed milestones and assumed NJSEA review periods clearly designated;

vi. Vendor qualifications (no more than 5 pages per firm);

vii. Examples of LiDAR and topographic data from past projects on CD;

viii. Resumes of key personnel to be assigned to the project team (no more than 3 pages per person);

ix. Three (3) prior relevant work references with contact information (phone and e- mail); and

x. Documents specified under Section 1.3.4.

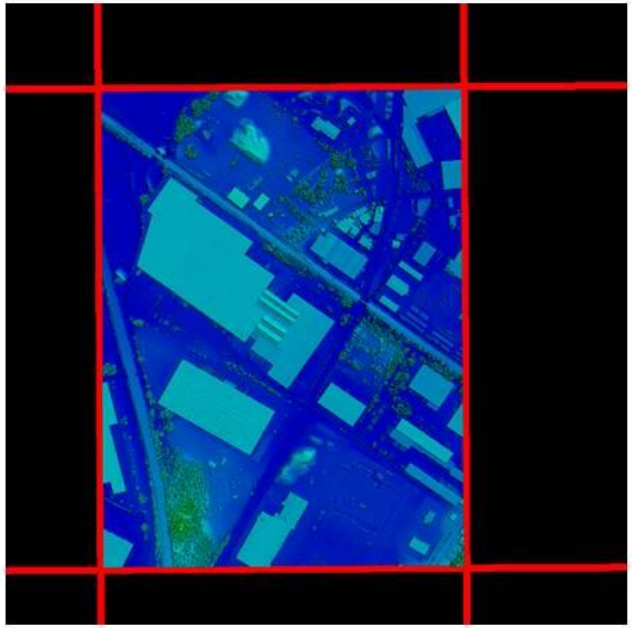
Expectations

	Description	Max Point Value
i.	General experience and qualifications of the firm	15
ii.	Client References	5
iii.	Degree to which Firm's Proposal indicates compliance with contract requirements, and meeting above standards	20
iv.	Demonstrated understanding of the issues relevant to this project, including constraints to flight times and durations, nature of ground cover, and local tidal influence	30
v.	Value of Price Proposal	30
	TOTAL MAXIMUM POINT VALUE	100

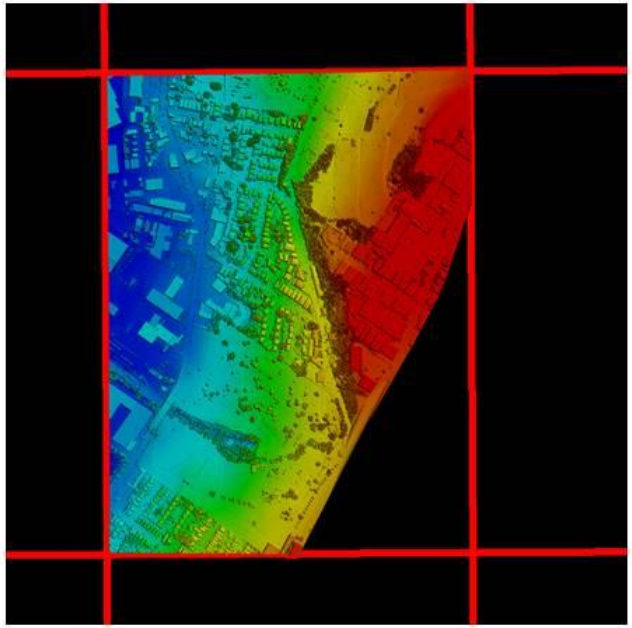
Expectations - Deliverables

i. Summary & description of project
ii. Raw Point Cloud, .LAS v1.3, swath format
iii. Classified Point Cloud, .LAS v1.3, tile format (SPCS) – all tiles shall have <u>no</u> partial LiDAR coverage, data must encompass a full tile
iv. Hydro-flattened Bare Earth Gridded DEM (2ft cell, ENVI LiDAR in .DAT or .IMG; and in ESRI GRID/ or GeoTIFF formats)
v. Each return should be stored in a separate file (1st, 2nd and 3rd returns)
vi. Hydro breaklines in ArcGIS geodatabase format
vii. Digital index grid of LiDAR (compatible ArcGIS geodatabase format)
viii. Digitally created 1ft contours (in ArcGIS geodatabase and DWG format) – mapping only contours and spot elevations
ix. GPS benchmarks in CAD & GIS format
x. A project ground control report, along with the accuracy report and metadata

Example of Tile Coverage Criteria



Acceptable



Not Acceptable

Key Dates

Milestone	Date
Distribute RFP	Tuesday, December 21, 2021
Mandatory Pre-bid meeting at NJSEA	Tuesday, December 28, 2021
Questions/Requests for Clarifications due	**Friday, January, 7, 2022**
Final Addendum Distributed	Tuesday, January 11, 2022
Proposal due to Commission	**Friday, January 21, 2022**
Notification of Selection	Tuesday, February 15, 2022
Notice to Proceed	Tuesday, February 22, 2022
Flight Completed	**To be completed March 2022**
Project Completion	To be completed May 2022