Natural Environment Unit-PDEA – Consultant Information for 2012 – 2014 Contracts
Updated – July 19, 2012

TRIMBLE PATHFINDER OFFICE
- To set Pathfinder Office for export in the "PDEA ASCII" format: The Pathfinder Office Export registry key must be replaced with the "GPSexport.reg" file (as provided in the zip file). *Carefully* delete the Pathfinder Export Folder from the registry *then* run the GPSexport.reg file.
- The **PDEA Data Dictionary** file has been included in the zip file.

GPS/CADD STANDARDS

GPS settings:
- Use PDEA Data Dictionary version 4 for mapping.
- A **PDOP of 6.0** or less must be used.
- Logging interval of 5 seconds for point features
- Elevation mask of 15°, SNR mask of 6.0, minimum of 4 positions per point
- Export to PDEA ASCII English, unless specified otherwise.

GPS data:
- Wetland boundaries are to be recorded with **points**, not lines or areas
- Use 'point generic' feature to GPS wetland/upland data form locations and intermittent/perennial transitions for streams
  For streams and ponds, use appropriate stream feature: "JS MIT" & "JS Non-MIT" -(JS = Jurisdictional Stream and MIT = Mitigation)

NOMENCLATURE
- Features should be labeled and provided in the wetland file in the following format :
  Wetlands
  WA, WB, WC…WAA, WAB, WAC [Points should correspond to wetland ID (WA1, WA2, WA3…)]
  Streams
  SA, SB, SC… SAA, SAB, SAC [Points should correspond to stream ID (SA1, SA2, SA3…)]

Note: All jurisdictional streams need to be represented and labeled in the wetland file. Additionally, a feature name should be assigned for representation in NRTR unless the project only crosses one named stream. If this is the case, then stream name should be given only.

MICROSTATION

- You are to submit: 1) Corrected GPS file, 2) GIS shape file, 3) Microstation V8i wetland design file

- Appropriate nomenclature for wetland files:
  TIP_NAT_WET.DGN for USACE verified wetland files
  TIP_NAT_WEX.DGN for *unverified* wetland files

- If a revision is made to an original file, "_REVddmmmyyyy" may be added after WEX or WET (e.g. TIP_NAT_WET_REV30Aug2010.dgn)

- Set element scale for bridge projects to 50; set element scale for non-bridge projects to 200.

- The swamp/marsh cell should be placed throughout the wetland area but the density should not obscure other information.

- When using the Natural_Environment Workspace, the NES toolbox can be used to set scales and assign appropriate levels for features.

- *Numbered Levels are no longer used or accepted*. Usage of the appropriate level will automatically assign the correct line style, weight, and color to a feature.

- Do not use features on a level that are not designated for that level--supplementary features or information will be placed on the "Default" Level. For example, wetland/upland or stream form points are to be placed on the "Default" Level.

- Additional information for nomenclature and setting up Microstation Workspaces can be found at:
  http://www.ncdot.gov/doh/CADD/default.html#id32

Scope of work for Wetland Boundaries as contracted through Natural Environment Section, NCDOT

Biologist will provide visible location of wetland boundaries by flag, ribbon, etc., for survey crew/member to locate, unless survey crew/member accompanies biologist to the field. Flags, ribbons, etc. will be numbered in some logical fashion, i.e. concurrent numbers indicating boundary perimeter.

Surveyor will use some type of non-destructive survey equipment such as survey or mapping grade GPS to locate points as designated.

All data will be tied horizontally to the most recent adjustment of NAD 83, NC State Plane Coordinate System unless otherwise specified by NCDOT.

The deliverables from the surveyor to the biologist will be:
1) Two maps, one original and one copy, both on paper. This map shall be a signed and sealed map of the wetland boundary, showing North arrow with datum reference, vicinity map, and wetland boundary, with statement reading:

> "I, _____, certify that this plat was drawn under my supervision from an actual Class C (or better) LIS/GIS survey made under my supervision on _____ (dates of survey); that _____ (method of measurement with manufacturer and model number) was used in this survey; that the method of accuracy evaluation was _____; that all wetland boundary lines were surveyed and are clearly indicated; that the horizontal datum for this survey is _____ (NAD 83 or other adjustments).
>
> Witness my original signature, registration number and seal this ____ day of ____, A.D., ____.
> Seal or Stamp
>
>
> _____
> Surveyor Name
> Registration Number"

> This map will not be recorded, and should be marked "Wetland Boundary for NCDOT: Not For Recordation" This map will include a table of coordinates for all surveyed points, with associated numbers from the biologist's field delineation The map should be of a reasonable size to display the wetland boundary plus all notes, seals, etc.

2) A CAD file that accurately represents the signed and sealed map.

The deliverable from the biologist will be 1) A copy of the signed and sealed survey map 2) An accurate representation of the surveyor's map in .dgn format, as previously defined by the Natural Environment Section (this may be provided by the surveyor).