Airport Pavement Condition Index (PCI) Inspection Contract – Phase 2

Scope of Services

Systems Inventory and Drawing Updates

The selected consultant shall collect, consolidate, and review information provided by ODOT and the airports. As part of this effort, ODOT will also make available airport layout plans (ALPs) and as-built construction plans in our records.

The average sampling rate for ODOT PCI inspections has historically been between 10%-15%, which was sufficient for past system level inspections. Current analysis and statistical data indicate that in order to achieve a 95% confidence level, asphalt cement (AC) pavements should be sampled at a minimum rate of 20%, while portland cement concrete (PCC) pavements should have a minimum sampling rate of 15%.

Sampling rates, shown in Table 1, will be used in this project. This tabled approach standardizes the analysis as well as minimizes under-sampling or the added expense of over-sampling.

Table 1. Pavement Inspection Sampling Rates for a Confidence Level of 95%

Asphalt-Surfaced Pavements		PCC Pavements	
SU	**IU**	**SU**	**IU**
1 – 10	3	1 – 10	2
11-20	3+10%	11- 20	2+5%
21-30	5+10%	21-30	4+5%
31-40	7+10%	31-40	5+5%
41-50	9+10%	41-50	7+5%
51-60	11+10%	51-60	8+5%
61-70	13+10%	61-70	10+5%
71-80	15+10%	71-80	11+5%
81-90	17+10%	81-90	13+5%
91-100	19+10%	91-100	14+5%
>100	20+10%	>100	15+5%

SU =Total Number of sample units in section IU = Number of sample units to inspect
Round up to the next whole sample unit.

For consistency, the same sample units will typically be inspected from project year to project year. A cursory inspection of the entire pavement section will also be performed to allow the inspectors to verify that the sample units selected for inspection are representative of the overall condition of the pavement. Adjustments to the selected sample units for inspection may be made to assure an accurate assessment of the pavement's condition. In addition to the selected sample units, any unique or isolated pavement distresses not representative of the section will be identified and added as an additional sample unit and inspected, in accordance with FAA Advisory Circular 150/5380-6C and ASTM D5340-20.

The selected consultant will use the provided inventory information and sampling plan to update the MicroStation® drawing for each airport. The network structure established during previous ODOT projects will provide the basis for this work moving forward. Additional specific guidance on structure may be provided by ODOT.

Pavement Work History Update

The selected consultant will update each airport's PAVER® database with the collected work history. The historical inventories and work histories for 88 of the 97 airports were built and maintained by ODOT until approximately 2015. The selected consultant will be supplied with the information ODOT has on file; however, they may also need to contact the airport to validate or collect additional pavement work history information. The historical inventories and work histories for the remaining 9 airports were developed and maintained by the local airport sponsor, and the selected consultant will be supplied with the information provided by the airport. Pavement work histories will be updated for all available pavement projects since the last record in the database to include any new construction, reconstruction, rehabilitation, and maintenance activities.

PCI Inspections

The selected consultant shall provide qualified personnel experienced in conducting PCI inspections on airport and will be required to comply with the applicable sections of AC 150/5370-2G - Operational Safety on Airports During Construction. Airports included in the project are provided in Table 2.

Prior to conducting fieldwork, representatives from the consultant inspection team will meet with Office of Aviation staff to collaborate on and establish state guidance on distress severity levels. The schedule will be refined to ensure the timeliness of the data collection as well as to consider other potential conflicts for inspections, such as construction projects or aviation events. The selected consultant will provide ODOT advance notification of any proposed schedule revisions.

ODOT will provide contact information for the individual airports so that the selected

consultant can coordinate directly with each airport to schedule the field inspections.

Before the airport inspections, airports will be notified of the impending inspection by ODOT. The introductory contact will be followed by a phone call or email from the selected consultant to discuss the date and time for the inspection, along with any access issues that the survey crew may need to be aware of prior to the pavement inspection. During all contacts with airport sponsors or management, invitations for them to accompany the inspectors will be offered.

Pavements at project airports will be inspected on a 3-year cycle, using the PCI procedure documented in the FAA Advisory Circular 150/5380-6C, FAA Advisory Circular 150/5380-7B, and ASTM D5340-20, and additional guidance provided by ODOT. Any privately maintained areas identified previously by ODOT will continue to be excluded from the pavement inspections. These areas will, however, remain on the airport drawings, PCI maps and in the PAVER® database.

A digital photographic log of the pavement sections and distresses observed during the inspection will be maintained to document the condition of the sections at each airport. These photographs will be labeled with the airport identifier, branch, section, and sample unit, and will be provided to ODOT on acceptance of the inspection.

PAVER Database Update

The selected consultant will update each airport's PAVER® databases with the collected inventory, sampling, work history and PCI data. The GIS component of each database will also be updated.

Reports and Deliverables

The selected consultant will produce inspection reports, PCI maps and work history reports for the individual project airports. A draft copy of the report template will be submitted to ODOT for approval as to form prior to developing final individual airport report tables. Electronic PDFs of the report documents will be provided to ODOT upon completion for approval. Once approved, ODOT will post the report documents on the ODOT Office of Aviation web page and the consultant will forward the report to the airport sponsor. The report documents will use the official airport name in the file naming convention.

The selected consultant will deliver the individual Airport updated PAVER® databases, MicroStation® files and digital site photos upon acceptance of the inspection report.

Table 2. Project Airports

Airport Identifier	Airport Name	Associated City
DAY	James M. Cox Dayton International	Dayton
CAK	Akron Canton Regional	Akron
CLE	Cleveland Hopkins International	Cleveland
02G	Columbiana County	East Liverpool
17G	Port Bucyrus - Crawford County	Bucyrus
22I	Vinton County	McArthur
2G2	Jefferson County Airpark	Steubenville
3G4	Ashland County	Ashland
3W2	Put-in-Bay	Put-In-Bay
4I3	Knox County	Mount Vernon
4I9	Morrow County	Mount Gilead
56D	Wyandot County	Upper Sandusky
5A1	Norwalk-Huron County	Norwalk
89D	Kelleys Island Landing Field	Kelleys Island
AMT	Adams County-Alexander Salamon	West Union
AXV	Neil Armstrong	Wapakoneta
CDI	Cambridge Municipal	Cambridge
CMH	John Glenn Columbus International	Columbus
CQA	Lakefield	Celina
FDY	Findlay	Findlay
FZI	Fostoria Metropolitan	Fostoria
GAS	Gallia-Meigs Regional	Gallipolis
GDK	Greene County-Lewis A. Jackson Regional	Dayton
GEO	Brown County	Georgetown
I23	Fayette County	Washington Court House
I86	Perry County	New Lexington
I95	Hardin County	Kenton
JRO	Jackson County-James A. Rhodes	Jackson
LCK	Rickenbacker International	Columbus
LNN	Lake County Executive	Willoughby
LPR	Lorain County Regional	Lorain
MGY	Dayton Wright Brothers	Dayton
MRT	Union County	Marysville
RZT	Ross County	Chillicothe
TOL	Toledo Express	Toledo
TZR	Bolton Field	Columbus