



INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

100 North Senate Avenue
Room N925
Indianapolis, Indiana 46204

PHONE: (317) 232-5456
FAX: (317) 232-5551

Michael R. Pence, Governor
Karl B. Browning, Commissioner

AGENDA

May 15, 2014 Standards Committee Meeting

MEMORANDUM

May 2, 2014

TO: Standards Committee

FROM: Scott Trammell, Secretary

RE: Agenda for the May 15, 2014 Standards Committee Meeting

A Standards Committee meeting is scheduled for 09:00 a.m. on May 15, 2014 in the N955 Bay Window Conference Room. Please enter meeting through the double doors directly in front of the conference room.

The following items are listed for consideration:

A. GENERAL BUSINESS ITEMS

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

1. *Approval of the Minutes from the February 20, 2014 meeting*

B. CONCEPTUAL PROPOSAL ITEMS

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

(No items on this agenda)

C. STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
PROPOSED ITEMS

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

<u>Item No. 01</u>	<u>5/15/14 (2014 SS)</u>	<u>Ms. Gottschalk</u>	<u>pg 03</u>
SECTION 628		FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS EQUIPMENT, OFFICE MACHINES AND COMMUNICATIONS	
<u>Item No. 02</u>	<u>5/15/14 (2014 SS)</u>	<u>Mr. Walker</u>	<u>pg 19</u>
400-R-610		PROVISIONS FOR HMA MIXTURES	
<u>Item No. 03</u>	<u>5/15/14 (2014 SS)</u>	<u>Mr. Walker</u>	<u>pg 22</u>
401.08		Job Mix Formula	
<u>Item No. 04</u>	<u>5/15/14 (2014 SS)</u>	<u>Mr. Walker</u>	<u>pg 25</u>
406.05		Application of Asphalt Material	
<u>Item No. 05</u>	<u>5/15/14 (2014 SS)</u>	<u>Mr. Pankow</u>	<u>pg 28</u>
701.05		Nominal Driving Resistance of a Driven Pile	

cc: Committee Members
FHWA
ICA

Ms. Gottschalk
Date: 5/15/14

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
REVISION TO STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Spec is out of date with current standards, Microsoft retired XP as an operating system and will not continue to service it.

PROPOSED SOLUTION: Bring 628 spec to current minimum standards

APPLICABLE STANDARD SPECIFICATIONS: 628

APPLICABLE STANDARD DRAWINGS: N\A

APPLICABLE DESIGN MANUAL SECTION: N\A

APPLICABLE SECTION OF GIFE: N\A

APPLICABLE RECURRING SPECIAL PROVISIONS: 628-C-586

PAY ITEMS AFFECTED: Mobile Laptop Computer System, Mobile Internet Service, Field Office, Field Office Computer System, Additional,Field Laboratory

Submitted By: Michelle Gottschalk

Title: Director Construction Technical Support

Organization: Construction Management

Phone Number: 317-232-7758

Date: 4-17-2014

APPLICABLE SUB-COMMITTEE ENDORSEMENT: SiteManager Operations Group

REVISION TO STANDARD SPECIFICATIONS

SECTION 628 - FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS, OFFICE MACHINES AND COMMUNICATIONS

(Note: Only proposed changes shown highlighted gray; changes as amended on 11-22-2013 meeting and are shown as deletion - strikethrough, insertion - in italics are from RSP [628-C-586](#) FIELD OFFICE COMPUTER EQUIPMENT;

Basis for Use: Required for all contracts with 628 pay items, **except LPA projects**)

The Standard Specifications are revised as follows:

SECTION 628, BEGIN LINE 1, DELETE AND INSERT AS FOLLOWS:

SECTION 628 – FIELD OFFICE, FIELD LABORATORY, COMPUTER ~~SYSTEMS~~EQUIPMENT, OFFICE MACHINES AND COMMUNICATIONS

628.01 Description

This work shall consist of providing the specified facilities, equipment, supplies and services in accordance with 105.03.

628.02 Field Office and Laboratory Requirements

When specified, the Contractor shall provide a field office, computer ~~systems~~*equipment*, office machines, field laboratory, services, equipment and supplies for the Department's exclusive use in accordance with the minimum requirements listed below.

(a) Field Office

The field office shall be located as mutually agreed by the Engineer and the Contractor. If a building exists within the limits of the right-of-way that is acceptable as a field office and the building is scheduled to be removed under the terms of the contract, the building may be equipped and furnished as the field office. A building within the right-of-way that is furnished under this specification shall be removed prior to the date of the last work and other acceptable facilities for the field office shall then be provided.

The field office may be a permanent building or a trailer and shall be of the type shown on the Schedule of Pay Items. The building or trailer furnished for the field office shall be in accordance with all applicable State and local codes and applicable IOSHA/OSHA requirements.

The field office shall be complete and ready for use by the Department, including all utility connections and specified computer ~~systems~~*equipment*, office machines, internet service, equipment and supplies, prior to the start of work. If the Contractor is unable to provide the permanent field office prior to the start of the work, the Engineer shall be notified in writing and the Contractor and the Engineer will agree on temporary field office arrangements prior to the start of work. A temporary field office will not be accepted by the Department for more than two months, at which time a permanent field office shall be ready for the Department's use.

The field office shall at a minimum be the size listed below for the type field office specified.

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1. Type A – 400 sq ft
2. Type B – 550 sq ft
3. Type C – 650 sq ft.

Minimum dimensions shall be 8 ft wide and 7 ft in height, from floor to ceiling. For a trailer, the calculation of minimum area will be based on the exterior box dimensions.

The office shall have a solid and level floor with no holes, a weatherproof roof and shall be dust-proof, and wind-tight. The field office shall have at least two doors for ingress and egress and shall have a minimum of six windows for a type A field office and eight windows for a type B or C field office, not including any windows in the doors.

Each door shall have a satisfactory lock. At least one door must always be able to be unlocked and opened from inside the field office. If a padlock is used to secure a door, it shall be a high security type which is invulnerable to bolt cutters, hacksaws, hammers, or prybars. The padlock shall be mounted in such a manner that locking and unlocking the door is satisfactorily convenient. Installation of additional hardware to protect the lock or use of multiple padlocks on a door will not be allowed. However, additional hardware to receive the padlock will be acceptable. The Contractor shall furnish the number of keys to the office as directed by the Engineer. The Department will maintain a list of all Department personnel who are given keys.

Windows shall be hinged or sliding and have a minimum area of 5 sq ft each. Windows shall be provided with satisfactory locks and screens. Windows, including windows in the doors, shall be provided with shades, blinds, or other approved coverings.

The field office shall have heating and air-conditioning equipment capable of maintaining a uniform temperature between 68°F and 80°F.

The field office shall have a minimum 100 amp, 120/240 volt electrical service, shall have sufficient receptacles to satisfactorily accommodate all required electrical equipment without the use of extension cords or splitters and shall be provided with satisfactory office type lighting.

~~The field office shall include a minimum of one separately lockable storage area suitable to store a nuclear density/moisture gauge. The storage area shall have a minimum storage volume of 63 cu ft with a minimum floor area of 9 sq ft.~~

If the field office is a trailer, the trailer shall be securely supported by adequate blocking. The blocking shall provide a foundation to prevent settlement. The trailer shall be secured to the ground with a trailer tie down system that is in accordance with all State

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and local requirements. Each trailer shall be furnished with steps meeting IOSHA/OSHA requirements at each doorway.

The field office location shall be selected in order to provide satisfactory parking and trash disposal facilities for Department use. Parking spaces shall be either paved or surfaced with compacted aggregate, size No. 53, or other acceptable materials suitable for all-weather usage.

(b) Field Office Equipment and Supplies

The following minimum equipment and supplies shall be furnished for each field office of the type specified.

Office Type	A	B	C
Bloodborne Pathogen Kit	1	1	1
Broom and Dust Pan	1	1	1
Calculators	1	2	2
Carbon Monoxide Detector	1	1	1
Chairs	4	8	12
Cleaning Supplies	Yes	Yes	Yes
Drafting Stools	1	1	1
Drafting Tables	1	1	1
<i>Bottled</i> Drinking Water	Yes	Yes	Yes
File Cabinet Drawers	4	8	12
Fire Extinguishers	1	2	2
First-Aid Kit	1	1	1
Folding Office Tables	1	2	2
Microwave Oven	1	1	1
Office Desks & Office Chairs	2	4	4
Paper Shredder	1	1	1
Pencil Sharpener	1	1	1
Refrigerator/Freezer	1	1	1
Shelving	16 lft	20 lft	24 lft
Six-hook Coat Rack	1	1	1
Smoke Detector	1	1	2
Telephones Lines	2	2	2
Telephones	2	2	3
Toilet Facilities	Yes	Yes	Yes
Voice Mail	1	1	1
Waste Paper Baskets	2	4	4

The office and the equipment shall be furnished in a condition satisfactory to the Department.

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Adequate quantities of basic hygiene and office cleaning supplies shall be provided. These supplies shall include, but are not limited to, hand soap, hand sanitizer, paper towels, toilet paper, window cleaner, all-surface cleaner, toilet disinfectant, toilet brush and a toilet plunger.

~~Potable~~**Bottled** drinking water with both hot and cold water capabilities shall be furnished. Drinking cups and paper towels shall be provided.

Fire extinguishers shall be five-pound, Class ABC or higher rated and shall be maintained in a fully charged and operable condition and shall meet all IOSHA/OSHA requirements.

First-aid kits shall meet the requirements of ANSI Z308.1 current at the time of letting.

Shelving shall have a minimum width of 10 in.

At least one telephone shall be a cordless phone having a frequency of at least 900 MHz.

The telephone voice mail system shall be capable of providing both a minimum one minute outgoing message and 30 minutes total recording time for incoming messages. It shall have a remote operation feature, which may be used to retrieve, replay, erase, and save messages. An answering machine meeting these requirements may be substituted for the voice mail system.

Filing cabinets shall at a minimum be fire resistant steel filing cabinets with a class D or higher classification established by UL or Safe Manufacturers National Association. Cabinet drawers shall have a filing depth of 25 in. All cabinets shall have a lock and at least four drawers shall be fireproof.

Office desktops shall be at least 48 in. wide and 25 in. deep. All desks shall contain at least two drawers, one of which shall be provided with a lock.

Folding office tables shall be a minimum size of 30 by 60 in.

Office chairs shall be height adjustable and equipped with castors. Other required chairs may be stackable or folding chairs.

Drafting tables shall contain a tilt top work table for drafting purposes. Dimensions shall be at least 30 by 60 in. The drafting stool shall be proportional to each drafting table.

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Supplies to be furnished shall include all items required for proper operation of the required equipment. This includes, but is not limited to, operating manuals and paper supplies.

Calculators shall be electric powered, have a printer and a minimum 12-digit capacity.

The shredder shall have a minimum capacity of 12 sheets (20 lb paper), shall be capable of shredding paper clips and staples and shall include a five-gallon capacity waste basket.

The microwave oven shall have a minimum 1 cu ft capacity with a minimum 1,100 watts and shall have digital controls.

The field office and all equipment and supplies shall be maintained and replenished in a satisfactory manner during the term of the contract or until released by the Engineer. If the field office or required equipment and supplies are not maintained by the Contractor, the Engineer may withhold partial payments until the field office is operational to the Department's satisfaction.

(c) Field Office Computer System Equipment

When specified in the Schedule of Pay Items, the Contractor shall provide ~~one field office a laptop~~ computer system in accordance with the minimum requirements listed below for the Department's exclusive use for each field office, specified. The Contractor has the option to provide either a desktop or a laptop computer system in accordance with the minimum requirements listed below.

1. Field Office Desktop Computer System

- a. Processor— Intel or AMD compatible, 2.0 GHz
- b. Memory— 1.0 GB, 533 MHz
- c. Hard Drive— 60 GB, 5,400 rpm
- d. Optical Drive— 24X CD-RW drive
- e. Ports— Two USB 2.0 compliant ports
- f. Network/Wireless— Ethernet or wireless card to be compatible with the selected internet and office network connections
- g. Graphics— Integrated graphics card
- h. Monitor— 22 in. widescreen digital flat panel
- i. Keyboard— USB enhanced multimedia keyboard
- j. Mouse— USB 2 button scroll mouse.

2. Field Office Laptop Computer System

- a. Laptop Computer

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- ~~ab.~~ Processor – Intel or AMD compatible, ~~2.02.4~~ GHz
- ~~bc.~~ Memory – ~~1.04.0~~ GB, ~~5331333~~ MHz
- ~~ed.~~ Hard Drive – ~~60250~~GB, 5,400 rpm
- ~~de.~~ Module Bay Device – 24X CD-RW drive
- ~~ef.~~ Ports – Two USB 2.0 compliant ports
- ~~fg.~~ Network/Wireless – Ethernet or wireless card to be compatible with the selected internet and office network connections
- ~~gh.~~ Graphics – Integrated graphics card
- ~~hi.~~ Display – 15 in.² ~~XWX~~ GA LCD panel
- ~~ij.~~ Battery – Nine cell lithium ion
- ~~jk.~~ External Monitor – 22 in. widescreen digital flat panel
- ~~kl.~~ External Keyboard – USB enhanced multimedia keyboard
- ~~lm.~~ External Mouse – *Optical* USB 2-button scroll mouse
- ~~mn.~~ Miscellaneous – One compatible port replicator with AC adapter, one additional AC adapter, one DC adapter and one padded carrying case.

32. Field Office Computer Equipment for Department Provided Laptop

- a. External Monitor – 22 in. widescreen digital flat panel, with VGA and DVI connections*
- b. External Keyboard – USB enhanced multimedia keyboard*
- c. External Mouse – Optical USB 2-button scroll mouse*
- d. ~~DELL E-series~~A port replicator with AC adapter, and one DC adapter, compatible with the Department provided laptop*
- e. Wireless router compatible with IEEE 802.11 a/b/g, or b/g/n, and shall have 1 input and 4 output 10/100 Ethernet ports. The router shall have WI-FI protected access (WPA2-PSK, WPA-PSK) and WEP security.*

For contracts that do not include a field office, the external monitor, integrated graphics card, external keyboard and port replicator with AC adapter will not be required.

3. Computer Software

The Contractor shall provide software for the computer system in accordance with the minimum requirements listed below.

- a. Operating System Software – Windows ~~XP~~ Professional.
- b. Productivity Software – Microsoft Office 200~~3~~7 Small Business and Adobe Acrobat Professional ~~X~~.
- c. Security Software – McAfee Virus Scan Plus.

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All software shall include the most current updates and patches at the time the computer system is provided to the Department. The Contractor shall provide for installation of updates and patches for the operating system, productivity and security software during the term of use of the computer system by the Department. Updates and patches shall be provided by an automatic update method.

The Department may install and maintain proprietary software on the computer in order to run the Department's construction management programs.

4. Miscellaneous Computer Requirements

The initial condition of the computer ~~system~~ *equipment* shall be nearly pristine. All owner installed e-mail accounts, games, spyware, online services, applications, network or other profiles previously set up on the system shall be removed prior to placement in the field office. If the system was provided for a previous Department contract, all software not specified shall be removed prior to placement in the current field office.

The Contractor shall provide an uninterruptible power supply, UPS, minimum ~~120450~~ VA, ~~100257~~ Watts and full time surge suppression for each field office ~~computer system specified in the contract.~~

The Contractor shall provide all cables, connections and software required to connect the field office computer ~~system~~ *provided by the Contractor or the Department* to the printer and the scanner.

~~When more than one computer system is specified for a field office, t~~The Contractor shall provide either an Ethernet or wireless office network to enable all computer systems in the field office to access the field office internet service, the printer and the scanner.

~~The Contractor shall provide appropriate dust covers for all field office desktop computer systems.~~

The Contractor shall provide all manuals necessary for operation of the computer system and software with the system and shall include all documentation normally furnished with the equipment and software when purchased.

The Department will be utilizing the computer system to run or access Department provided construction management software applications. These applications are known to run on Intel and AMD compatible equipment when using the Windows ~~XP~~7 Professional operating system. If the Department experiences problems running these applications due to hardware or software compatibility, the Contractor shall replace the equipment to ensure compatibility to the satisfaction of the Engineer within five business days.

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The computer system shall be maintained in good working order. If a portion of the system becomes defective, inoperable, damaged, or stolen, that portion shall be repaired or replaced within five business days after the Contractor is notified by the Engineer. If the computer system and related accessories are not maintained by the Contractor as required, the Engineer may withhold partial payments until the computer system is operational to the Department's satisfaction.

(d) Field Office Internet Service

The Contractor shall provide broadband internet service for the field office. Broadband internet service shall be capable of a minimum average upload speed of ~~350 Kbps~~ **6 Mbps** and minimum download speed of **25 Mbps**, unless otherwise approved by the Engineer.

(e) Field Office Machines

The Contractor shall provide a fully operational copier, printer, *and* document scanner ~~and fax machine~~ for the Department's exclusive use in the field office in accordance with the minimum requirements listed herein.

In lieu of separate copier, printer, *and* scanner ~~and fax machines~~, the Contractor may provide an all-in-one unit that meets all the requirements for any combination of the individual machines being provided. Separate machines shall be provided for those machine functions that are not included in an all-in-one type machine.

1. Copier

The copier shall be capable of using plain paper and of making full size, black and white copies of letter, legal and ledger US paper size original documents. The copier shall be capable of reducing and increasing copy sizes. The copier shall have a self-feeding paper tray, an automatic document feeder and be capable of producing at least ~~1220~~ copies per minute.

2. Printer

The printer shall be compatible with the computer system provided by the Contractor *or the Department* for use by the Department in the field office. The printer shall be capable of printing single-sided, black and white letter, legal and ledger US paper size documents at a rate of 20 pages per minute and capable of automatic duplex printing. More than one printer may be used to meet this requirement. *All devices shall be compatible with the Department's laptops or iPads and accommodate wireless printing from the iPads using AirPrint™ technology.*

3. Document Scanner

The document scanner shall be compatible with the computer system provided by the Contractor *or the Department* for use by the Department in the field office. The scanner shall be capable of scanning letter and legal size documents and shall have an

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automatic document feeder and be capable of 200 to 600 dpi black and white resolution, preset to 200 dpi.

4. Fax Machine

~~The fax machine shall be connected to one of the required telephone service lines in the field office. The machine shall have an automatic document feeder with a 10 page capacity and be capable of faxing letter and legal size sheets. It shall be able to automatically dial 40 preprogrammed fax numbers and have the capability to program at least two groups of numbers. The machine shall have a 2 MB memory, shall be equipped with a telephone handset and be capable of automatic redial.~~

54. Miscellaneous Office Machine Requirements

The Contractor shall provide letter, legal and ledger size paper, ink cartridges and toner as required by the Engineer for the operation of each piece of equipment provided.

If any office machine becomes defective, inoperable, damaged, or stolen, that machine shall be repaired or replaced within five business days after the Contractor is notified by the Engineer. If any of the office machines are not maintained by the Contractor as required, the Engineer may withhold partial payments until the machine is operational to the Department's satisfaction.

(f) Field Laboratory

The field laboratory shall be located as mutually agreed by the Engineer and the Contractor. The laboratory shall consist of an acceptable building or trailer in accordance with 628.02(a) in which the Department will house and use equipment to perform testing procedures for the contract.

The following equipment and supplies shall be furnished for each field laboratory of the type specified. The equipment and supplies shall meet the requirements of 628.02(a) as applicable.

Laboratory Type	A	B	C
Bloodborne Pathogen Kit	1	1	1
Broom and Dust Pan	1	1	1
Carbon Monoxide Detector	1	1	1
Chairs	2	2	2
Cleaning Supplies	Yes	Yes	Yes
<i>Bottled</i> Drinking Water	Yes	Yes	Yes
File Cabinet Drawers	4	4	4
Fire Extinguishers	1	2	2
First-Aid Kit	1	1	1
Folding Office Tables	1	1	1
Office Desks & Office Chairs	1	1	1
Shelving	16 lft	20 lft	24 lft

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Six-hook Coat Rack	1	1	1
Smoke Detector	1	1	2
Telephones Lines	1	1	1
Telephones	1	1	1
Toilet Facilities	Yes	Yes	Yes
Voice Mail	1	1	1
Waste Paper Baskets	2	2	2

If a field office is provided that is large enough to include the required space for the laboratory, the Engineer may agree to accept the field office for use as both office and laboratory, in which case the equipment and supplies listed for the laboratory will not be required.

If the field laboratory is a separate structure that is located directly adjacent to the field office, the toilet facilities, drinking water, telephones, voice mail/answering machine, telephone lines and cleaning supplies will not be required.

628.03 Additional Computer Systems and Mobile Internet Service

When specified, the Contractor shall provide the following computer systems and mobile internet services for the Department's exclusive use.

(a) Additional Field Office Computer System

The additional field office computer system shall be either a desktop or laptop computer system in accordance with 628.02(c)1 or 628.02(c)2 except that the monitor for a desktop system may be a 19 in. flat panel and the external monitor for a laptop system will not be required. The requirements of 628.02(c)3 and 628.02(c)4 shall apply to each additional field office computer.

(b) Mobile Laptop Computer System

The mobile laptop computer system shall be in accordance with 628.02(c)2 except that the external monitor, integrated graphics card, external keyboard and port replicator with AC adapter will not be required. Mobile laptop computers will be used by the Department for contracts that do not include a field office. The requirements of 628.02(c)3 and 628.02(c)4 shall apply to each mobile laptop computer except that those requirements specifically for a field office computer will not apply.

(c) Mobile Internet Service

The mobile broadband internet service access card will be used by the Department in a laptop computer provided by either the Contractor or the Department.

The card shall connect to the laptop via a type II PC card slot, an express card slot or a USB 2.0 compliant port. The card and service shall be capable of a minimum average upload speed of 350 Kbps 3G speed. The internet service rate plan shall include

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unlimited data and time usage with no roaming charge for national domestic use. All software necessary for the operation of the card shall be provided to the Engineer.

The Contractor shall not purchase any card or enter into any service agreement until authorized by the Engineer. The Engineer will provide a minimum of 10 business days notice prior to the date the card will be required.

628.04 Cellular Telephones

The Contractor shall provide cellular telephone equipment and services, as specified below, for use by the Department on the contract.

Each cellular telephone unit shall have a service coverage area that includes the project limits. Each cellular telephone unit shall include a belt clip system, a 120V AC charger, ~~and~~ a 12V DC mobile charger, *and a hands-free kit consisting of a speaker and a microphone enabling the user to operate the unit with minimal need for the use of their hands. The hands-free kit may be either wired or wireless. (Note: Amended on 11-12-2013 meeting; shown in RSP [628-C-236](#) HANDS-FREE KITS FOR CELL PHONES; Basis for Use: Required for all contracts with 628 Cellular Telephone pay items.)*

All equipment shall be covered by normal manufacturer's warranties. All cellular telephone units and associated equipment will remain the property of the Contractor and will be returned to the Contractor upon completion of the contract.

Cellular telephone units shall meet the following minimum requirements:

(a) Type A

1. internet ready device with minimum 3.5 in. display, measured diagonally
2. cellular telephone anytime minutes per month as shown in the Schedule of Pay Items
3. unlimited nights and weekends service
4. voice mail and caller ID
5. protective case to prevent damage to the unit
6. rear facing camera with a minimum 4 MP resolution
7. minimum 720p video capture
8. 2GB or higher data plan per unit
9. internal memory of 8GB or higher
10. USB port for computer connection.

(b) Type B

1. cellular telephone anytime minutes per month as shown in the Schedule of Pay Items
2. unlimited nights and weekends service
3. voice mail and caller ID

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4. build-in camera with a minimum 3.2 MP resolution.

The Department will be responsible for damage or loss of the units beyond that covered by normal manufacturer's warranties, while in use by the Department. The Contractor shall provide replacement cellular telephone units, batteries, chargers, and equipment within one business day of notification of need for the item.

The Contractor shall not enter into any agreement with any service provider or purchase any cellular telephone units for use by the Department until authorized by the Engineer. The Engineer will notify the Contractor a minimum of 10 business days prior to the need for the units.

628.05 Method of Measurement

Field office and field laboratory will be measured by the month for the specified type. Partial months will be rounded up to the next 1/2 or whole month. The Department will provide two weeks advanced notice prior to when the facility will be vacated.

If a field laboratory is specified and is included in the same space as the field office, the field laboratory will not be measured for payment.

Field office computer system will be measured by the number of units specified.

Cellular telephones will be measured by the number of units required for the type specified.

~~Additional field office computer system, mobile laptop computer system,~~
Mobile internet service, and cellular telephone service will be measured by the month for each system or service provided. Partial months will be rounded up to the next 1/2 or whole month. The Department will provide two weeks advanced notice prior to when mobile internet service and cellular telephone service will no longer be required.

628.06 Basis of Payment

Field office and field laboratory will be paid for at the contract unit price per month, complete in place until released.

Field office computer system will be paid for at the contract unit price per each for the units provided.

~~Additional field office computer system, mobile laptop computer system and~~
Mobile internet service will be paid by the month for each system or service provided.

Cellular telephone units will be paid for at the contract unit price per each per each type specified. Cellular telephone service will be paid for at the contract unit price per month per each phone. Monthly charges for cellular telephone minutes and data in

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excess of those specified in the contract will be paid for by the dollar amount for the invoiced price per each occurrence as cellular telephone, additional charges.

Payment will be made under:

Pay Item	Pay Unit Symbol
Cellular Telephone Service, _____ anytime minutes	MOS
Cellular Telephone, _____ type	EACH
Cellular Telephone, Additional Data	DOL
Cellular Telephone, Additional Minutes	DOL
Field Laboratory, _____ type	MOS
Field Office Computer System, Additional, _____ Each qty	MOSEACH
Field Office, _____ type	MOS
Mobile Internet Service, _____ Each qty	MOS
Mobile Laptop Computer System, _____ Each qty	MOS

The cost of all heating, cooling, electrical service, telephone service and other miscellaneous utility bills required for the field office or field laboratory shall be included in the cost of the field office or the field laboratory.

If a field office smaller than the specified type is approved by the Engineer, a new unit price will be established for the smaller field office. The new unit price will be equal to the original contract unit price multiplied by the smaller floor area and divided by the specified floor area.

If a temporary field office is provided in accordance with 628.02, payment will be 65% of the unit price during the time the temporary field office is in use by the Department.

The cost of all materials and labor necessary to setup, secure, maintain and remove the field office, including all required equipment and supplies and any material required to provide parking, shall be included in the cost of the field office.

All costs necessary to provide *and maintain* the field office computer system ~~equipment~~, including the required software, manuals, ~~peripherals and related equipment~~,

REVISION TO STANDARD SPECIFICATIONS

SECTION 628 - FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS, OFFICE MACHINES AND COMMUNICATIONS

technical support and miscellaneous computer requirements shall be included in the cost of the field office *computer system*.

All costs necessary to establish, install and maintain field office internet service, *both wireless and Ethernet, field office network*, including any required hardware, software, fees, monthly charges, setup, installation and technical support shall be included in the cost of the field office.

All costs necessary to provide the copier, printer, *and document scanner and fax machine*, including setup, installation, all required connections to computers *systems*, technical support and miscellaneous office machine requirements shall be included in the cost of the field office.

~~All costs necessary to establish and maintain a field office network when one or more additional field office computer systems are specified shall be included in the cost of the field office.~~

~~All cost necessary to provide an additional field office computer system, including the required software, manuals, peripherals and related equipment and technical support shall be included in the cost of the additional field office computer.~~

~~All costs necessary to provide the mobile laptop computer system, including the required software, manuals, peripherals and related equipment, technical support and miscellaneous computer requirements shall be included in the cost of the mobile laptop computer.~~

All costs necessary to establish, install and maintain mobile internet service, including required hardware, software, fees, monthly charges, setup, installation and technical support shall be included in the cost of mobile internet service.

The Contractor shall provide a copy of the detailed invoice from the service provider for each cellular telephone unit each month.

COMMENTS AND ACTION

SECTION 628 - FIELD OFFICE, FIELD LABORATORY, COMPUTER SYSTEMS, OFFICE MACHINES AND COMMUNICATIONS

DISCUSSION:

<p>Motion: Second: Ayes: Nays:</p>	<p>Action: <input type="checkbox"/> Passed as Submitted <input type="checkbox"/> Passed as Revised <input type="checkbox"/> Withdrawn</p>
<p>Standard Specifications Sections affected: 628 pg 470 thru 482.</p>	<p><input type="checkbox"/> 2016 Standard Specifications Book <input type="checkbox"/> Revise Pay Items List</p>
<p>Recurring Special Provision possibly affected: 628-R-586 FIELD OFFICE COMPUTER EQUIPMENT</p>	<p><input type="checkbox"/> Create RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____ <input type="checkbox"/> Revise RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p>
<p>Standard Sheets affected: NONE</p>	<p>Standard Drawing Effective _____ <input type="checkbox"/> Create RPD (No. _____) Effective _____ Letting <input type="checkbox"/> Technical Advisory</p>
<p>Design Manual Sections affected: NONE</p>	<p>GIFE Update Req'd.? Y ___ N ___ By _____ Addition or _____ Revision</p>
<p>GIFE Sections cross-references: NONE</p>	<p>Frequency Manual Update Req'd? Y ___ N ___ By _____ Addition or _____ Revision</p>
	<p>Received FHWA Approval? _____</p>

Mr. Walker
Date: 5/15/14

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
REVISION TO SPECIAL PROVISION

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: 4.75 mm mixtures should be required to be compacted by static rollers in accordance with 402 due to the thin lifts being placed and size of aggregate in the mixtures. As such, density control in accordance with Section 401 should not be required.

PROPOSED SOLUTION: Revise the specifications to reference Section 402 for compaction, require vibratory rollers to be operated in the static mode, and disallow the use of the vertical impact force of oscillatory rollers.

APPLICABLE STANDARD SPECIFICATIONS:

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE:

APPLICABLE RECURRING SPECIAL PROVISIONS: 400-R-610

PAY ITEMS AFFECTED: None

Submitted By: Ron Walker

Title: Manager, Office of Materials Management

Organization: INDOT

Phone Number: 317-610-7251 x 204

Date: 4-23-14

APPLICABLE SUB-COMMITTEE ENDORSEMENT: INDOT/APAI Technical Committee

REVISION TO SPECIAL PROVISION
400-R-610 PROVISIONS FOR HMA MIXTURES

(Note: Only affected sections from 400-R-610 shown; proposed changes shown highlighted gray.
Basis for Use: Required for all contracts with 401, 402, or 410 pay items.

Currently used RSP is available on [INDOT WEB site](#).

400-R-610 PROVISIONS FOR HMA MIXTURES

(Revised xx-xx-14)

SECTION 401, BEGIN LINE 377, INSERT AS FOLLOWS:

The finished thickness of any course shall be at least two times but not more than four times the maximum particle size as shown on the DMF, *except 4.75 mm mixtures shall be at least 1.5 times but not more than 3 times the maximum particle size shown on the DMF.*

~~Vibratory rollers in accordance with 409.03(d)4 shall not be operated in vibratory mode when placing 4.75 mm mixtures. Oscillatory rollers in accordance with 409.03(d)5 will be permitted for use when placing 4.75 mm mixture but the vertical impact force capability shall not be used.~~

SECTION 401, AFTER LINE 417, INSERT AS FOLLOWS:

~~Compaction of 4.75 mm mixtures shall be in accordance with 402.15, except vibratory rollers shall be operated in static mode and the vertical impact force capability of oscillatory rollers shall not be used.~~

COMMENTS AND ACTION

400-R-610 PROVISIONS FOR HMA MIXTURES

DISCUSSION:

<p>Motion: Second: Ayes: Nays:</p>	<p>Action: <input type="checkbox"/> Passed as Submitted <input type="checkbox"/> Passed as Revised <input type="checkbox"/> Withdrawn</p>
<p>Standard Specifications Sections affected: 401.16 pg 250.</p>	<p><input type="checkbox"/> 2016 Standard Specifications Book <input type="checkbox"/> Revise Pay Items List</p>
<p>Recurring Special Provision possibly affected: 400-R-610 PROVISIONS FOR HMA MIXTURES</p>	<p><input type="checkbox"/> Create RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____ <input type="checkbox"/> Revise RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p>
<p>Standard Sheets affected: NONE</p>	<p>Standard Drawing Effective _____ <input type="checkbox"/> Create RPD (No. _____) Effective _____ Letting <input type="checkbox"/> Technical Advisory</p>
<p>Design Manual Sections affected: NONE</p>	<p>GIFE Update Req'd.? Y ___ N ___ By _____ Addition or _____ Revision</p>
<p>GIFE Sections cross-references: NONE</p>	<p>Frequency Manual Update Req'd? Y ___ N ___ By _____ Addition or _____ Revision</p>
	<p>Received FHWA Approval? _____</p>

Mr. Walker
Date: 5/15/14

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
REVISION TO STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Revision is required to the Asphalt Pavements Section as follows: (401.08) JMFs of the same gyratory compaction effort ESAL category or higher are not allowed to be substituted for other JMFs in Section 401 as currently is allowed in Section 402.

PROPOSED SOLUTION: Revise the specifications to allow JMFs of the same gyratory compactive effort or higher in the current calendar year to be substituted for other JMFs.

APPLICABLE STANDARD SPECIFICATIONS: 401.08

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE:

APPLICABLE RECURRING SPECIAL PROVISIONS: None

PAY ITEMS AFFECTED: None

Submitted By: Ron Walker

Title: Manager, Office of Materials Management

Organization: INDOT

Phone Number: 317-610-7251 x 204

Date: 4-23-14

APPLICABLE SUB-COMMITTEE ENDORSEMENT: INDOT/APAI Technical Committee

REVISION TO STANDARD SPECIFICATIONS

SECTION 401 - QUALITY CONTROL/QUALITY ASSURANCE, QC/QA, HOT MIX
ASPHALT, HMA, PAVEMENT
401.08 JOB MIX FORMULA

The Standard Specifications are revised as follows:

SECTION 401, BEGIN LINE 193, INSERT AS FOLLOWS:

401.08 Job Mix Formula

A job mix formula, JMF, shall be developed by a certified HMA producer. A JMF used in the current or previous calendar year that was developed to N_{des} will be allowed. The mixture compaction temperature shall be $300 \pm 9^{\circ}\text{F}$ for dense graded mixtures and $260 \pm 9^{\circ}\text{F}$ for open graded mixtures. The JMF shall list the minimum and maximum plant discharge temperatures as applicable to the mixture. The JMF for each mixture shall be submitted to the Engineer and shall use the same MAF as the DMF. A *JMF of the same gyratory compactive effort ESAL category or higher approved in the current calendar year may be submitted for use.*

AGENDA

COMMENTS AND ACTION

401.08 JOB MIX FORMULA

DISCUSSION:

<p>Motion: Second: Ayes: Nays:</p>	<p>Action: <input type="checkbox"/> Passed as Submitted <input type="checkbox"/> Passed as Revised <input type="checkbox"/> Withdrawn</p>
<p>Standard Specifications Sections affected: 401.08 pg 245.</p>	<p><input type="checkbox"/> 2016 Standard Specifications Book <input type="checkbox"/> Revise Pay Items List</p>
<p>Recurring Special Provision affected: NONE</p>	<p><input type="checkbox"/> Create RSP (No.____) Effective ____ Letting RSP Sunset Date: ____</p>
<p>Standard Sheets affected: NONE</p>	<p><input type="checkbox"/> Revise RSP (No.____) Effective ____ Letting RSP Sunset Date: ____</p>
<p>Design Manual Sections affected: NONE</p>	<p>Standard Drawing Effective ____ <input type="checkbox"/> Create RPD (No. ____) Effective ____ Letting <input type="checkbox"/> Technical Advisory</p>
<p>GIFE Sections cross-references: NONE</p>	<p>GIFE Update Req'd.? Y ___ N ___ By ____ Addition or ____ Revision</p>
	<p>Frequency Manual Update Req'd? Y ___ N ___ By ____ Addition or ____ Revision</p>
	<p>Received FHWA Approval? ____</p>

Mr. Walker
Date: 5/15/14

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
REVISION TO STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Revision to 406.05 is required: based on recently completed national studies, the amount of tack coat should be increased. Requiring the current rate of 0.03 to 0.08 gal./sq.yd. to be the residual asphalt content will provide the necessary increase in tack coat.

PROPOSED SOLUTION: Revise the specification to make the tack coat rate the residual asphalt content.

APPLICABLE STANDARD SPECIFICATIONS: 406.05

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE:

APPLICABLE RECURRING SPECIAL PROVISIONS: None

PAY ITEMS AFFECTED: None

Submitted By: Ron Walker

Title: Manager, Office of Materials Management

Organization: INDOT

Phone Number: 317-610-7251 x 204

Date: 4-23-14

APPLICABLE SUB-COMMITTEE ENDORSEMENT: INDOT/APAI Technical Committee

REVISION TO STANDARD SPECIFICATIONS

SECTION 406 - TACK COAT

406.05 APPLICATION OF ASPHALT MATERIAL

The Standard Specifications are revised as follows:

SECTION 406, BEGIN LINE 25, INSERT AS FOLLOWS:

406.05 Application of Asphalt Material

The asphalt material shall be uniformly applied at the rate of from 0.03 to 0.08 gal./sq yd *residual asphalt content*, or as otherwise specified or directed.

AGENDA

COMMENTS AND ACTION

406.05 APPLICATION OF ASPHALT MATERIAL

DISCUSSION:

<p>Motion: Second: Ayes: Nays:</p>	<p>Action: <input type="checkbox"/> Passed as Submitted <input type="checkbox"/> Passed as Revised <input type="checkbox"/> Withdrawn</p>
<p>Standard Specifications Sections affected: 406.05 pg 279.</p> <p>Recurring Special Provision possibly affected: NONE</p> <p>Standard Sheets affected: NONE</p> <p>Design Manual Sections affected: NONE</p> <p>GIFE Sections cross-references: NONE</p>	<p><input type="checkbox"/> 2016 Standard Specifications Book <input type="checkbox"/> Revise Pay Items List <input type="checkbox"/> Create RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p> <p><input type="checkbox"/> Revise RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p> <p>Standard Drawing Effective _____ <input type="checkbox"/> Create RPD (No. _____) Effective _____ Letting <input type="checkbox"/> Technical Advisory</p> <p>GIFE Update Req'd.? Y ___ N ___ By _____ Addition or _____ Revision</p> <p>Frequency Manual Update Req'd? Y ___ N ___ By _____ Addition or _____ Revision</p> <p>Received FHWA Approval? _____</p>

Mr. Pankow
Date: 5/15/14

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS
REVISION TO SPECIAL PROVISION

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: There are no requirements for an individual or firm that is providing pile driving analysis (PDA) services on LPA contracts.

PROPOSED SOLUTION: Revise 701.05 to incorporate minimum requirements for those firms desiring to provide PDA services on LPA contracts.

APPLICABLE STANDARD SPECIFICATIONS: 701.05

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE: None

APPLICABLE RECURRING SPECIAL PROVISIONS: create new 701-B-xxx provision

PAY ITEMS AFFECTED: None

Submitted By: Greg Pankow

Title: State Construction Engineer

Organization: INDOT

Phone Number: 2-5502

Date: April 29, 2014

APPLICABLE SUB-COMMITTEE ENDORSEMENT: None

REVISION TO SPECIAL PROVISIONS

701-B-XXX PDA TESTING ON LOCAL PUBLIC AGENCY CONTRACTS

701-B-XXX PDA TESTING ON LOCAL PUBLIC AGENCY CONTRACTS

(Adopted XX-XX-XX)

The Standard Specifications are revised as follows:

SECTION 701, BEGIN LINE 376, DELETE AS FOLLOWS:

(b) Dynamic Pile Load Test

Dynamic monitoring will be performed for the purpose of obtaining the nominal driving resistance, pile driving stresses, pile integrity, and pile driving system performance. Dynamic monitoring will be conducted by PDA in accordance with ASTM D 4945. PDA will be performed on the first pile driven. The length of the pile used in the dynamic pile load test shall be a minimum of 10 ft greater than the estimated length of production piles in order to provide for variation in soil conditions. The Contractor shall assist the Department in obtaining dynamic measurements with the PDA during initial pile driving and during pile restrikes. If a static load test is required, the dynamic pile load test shall be performed on the same pile as the pile used in the static load test. The restrrike for the dynamic pile load test on a static load test pile shall be performed within 48 h of completion of the static load test. ~~If the contract is a local public agency contract, the Contractor shall perform the pile driving analysis in accordance with ASTM D 4945.~~

SECTION 701, AFTER LINE 443, INSERT AS FOLLOWS:

4. PDA on Local Public Agency Contract

The Contractor shall perform the PDA in accordance with ASTM D 4945. The firm conducting the PDA shall have at least one geotechnical engineer who shall have achieved one of the following certification levels: intermediate, advanced, master, or expert, within the last three years through the Dynamic Measurement and Analyses Proficiency Test conducted by Pile Dynamics, Inc., and the Pile Driving Contractors Association. An engineer with a lower certification level can provide services so long as this individual is under the direct supervision of an engineer with intermediate certification level or higher. The Case Pile Wave Analysis Program, CAPWAP, shall be utilized to determine the as-built pile capacity from the PDA data. The first pile driven for each substructure unit shall be a PDA test pile. The pile driving criteria with the PDA and CAPWAP results shall be submitted to the Department's Office of Geotechnical Services for approval.

COMMENTS AND ACTION

701-B-XXX PDA TESTING ON LOCAL PUBLIC AGENCY CONTRACTS

DISCUSSION:

<p>Motion: Second: Ayes: Nays:</p>	<p>Action: <input type="checkbox"/> Passed as Submitted <input type="checkbox"/> Passed as Revised <input type="checkbox"/> Withdrawn</p>
<p>Standard Specifications Sections affected: 701.05((b) pg 491.</p>	<p><input type="checkbox"/> 2016 Standard Specifications Book <input type="checkbox"/> Revise Pay Items List</p>
<p>Recurring Special Provision possibly affected: NONE</p>	<p><input type="checkbox"/> Create RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p>
<p>Standard Sheets affected: NONE</p>	<p><input type="checkbox"/> Revise RSP (No. _____) Effective _____ Letting RSP Sunset Date: _____</p>
<p>Design Manual Sections affected: NONE</p>	<p>Standard Drawing Effective _____ <input type="checkbox"/> Create RPD (No. _____) Effective _____ Letting <input type="checkbox"/> Technical Advisory</p>
<p>GIFE Sections cross-references: NONE</p>	<p>GIFE Update Req'd.? Y ___ N ___ By _____ Addition or _____ Revision</p>
	<p>Frequency Manual Update Req'd? Y ___ N ___ By _____ Addition or _____ Revision Received FHWA Approval? _____</p>