

STATE OF MICHIGAN  
 DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
 PROCUREMENT  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

**CHANGE NOTICE NO. 1**  
 to  
**CONTRACT NO. 071B3200129**  
 between  
**THE STATE OF MICHIGAN**  
 and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Measurement, Inc. 423 Morris Street Durham, NC 27701	Henry Scherich	hscherich@measinc.com
	TELEPHONE	CONTRACTOR #, MAIL CODE
	(919) 683-2413	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR	MDE	Douglas Collier	(517) 241-4431	collierd1@michigan.gov
BUYER	DTMB	Don Mandernach	(517) 284-7019	mandernachd@michigan.gov

CONTRACT SUMMARY:			
<b>Administration, Scoring, and Reporting of Statewide Assessments – Department of Education</b>			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
August 9, 2013	August 8, 2016	3, one year	August 8, 2016
PAYMENT TERMS	F.O.B	SHIPPED	SHIPPED FROM
N/A	N/A	N/A	N/A
ALTERNATE PAYMENT OPTIONS:			AVAILABLE TO MiDEAL PARTICIPANTS
<input type="checkbox"/> P-card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS:			
N/A			

DESCRIPTION OF CHANGE NOTICE:				
EXTEND CONTRACT EXPIRATION DATE	EXERCISE CONTRACT OPTION YEAR(S)	EXTENSION BEYOND CONTRACT OPTION YEARS	LENGTH OF OPTION/EXTENSION	EXPIRATION DATE AFTER CHANGE
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	N/A	August 8, 2016
VALUE/COST OF CHANGE NOTICE:			ESTIMATED REVISED AGGREGATE CONTRACT VALUE:	
\$810,024.50			\$37,675,333.50	

Effective immediately, funds in the amount of \$810,024.50 and the incorporation of Backup Psychometrics Services (when required) is added to this Contract (see attached addendum). All other terms, conditions, specifications and pricing remain unchanged.

#### **24. Psychometric Backup Services**

Contract must provide psychometric backup to the MDE (when required). Contractor has allotted one FTE in the budget for this purpose and will allot more on a per-hour or per-day basis if necessary. Persons performing the backup psychometric services will be Drs. Arianto Wibowo and Irene Hendrawan Widiatmo.

Contractor understands that the psychometric model currently used for the Michigan assessments is the Rasch Partial Credit Model implemented in WINSTEPS for all content areas, except Writing. Contractor also understands that the MDE may determine to use other IRT models for all content areas/subjects during this Contract. Contractor psychometricians have experience using other IRT models.

Contractor understands that the equating design is a fully pre-equated design in which all operational items have stable item statistics from large-scale field tests as items embedded in field test positions on operational assessments. Student scores are obtained by creating raw-to-scale score lookup tables in advance of receiving student data by using the fixed item parameters (e.g. b-values and step-values for the Rasch Partial Credit Model). As part of the quality assurance process, Contractor must check the creation of all raw-to-scale score lookup tables.

Should a move to the 3-PL model be made, the scoring shall take place using software capable of taking fixed-item parameters and estimating student achievement based on their item-score patterns. Contractor must work with the MDE to develop the most effective method for checking this type of scoring. For example, Contractor may run the same or similar estimation program to verify the assignment of IRT ability estimates (thetas) and then verify the transformation from thetas to scale scores.

Field-test calibrations can be conducted by holding constant all operational item parameters at the pre-equated values, and allowing the field-test item parameters to float in the calibration. Contractor will verify all of the field-test calibrations by replicating the IRT analyses using the same equating procedures as the MDE.

#### **Check Accuracy of Equatings**

The Contractor has a variety of programs including WINSTEPS and the Partial Credit Model (PCM) for checking the accuracy of equatings. Contractor will validate all equating results by actually replicating them. The most effective method for ensuring accuracy in equating is to replicate the results through the Contractor's own procedures. By producing the same scoring tables as the MDE, then the Contractor can be sure of the accuracy of the tables.

Contractor must check the scoring tables for any and all strand information planned for each assessment. This checking will be done by replicating the procedure and comparing the results.

Contractor must perform the analyses for all grade and content area assessments.

#### **Post Assessment Item Analyses**

All items presented on operational assessments will undergo item analysis after the administration of the assessment and this work needs to be verified by the Independent Psychometric Verification service (currently AES). This applies to both operational and embedded field test items. The types of analyses differ by item function (operational versus field test).

After each operational administration, an item analyses will be carried out that will create a single record for each item. The item analyses will include both classical item statistics IRT statistics appropriate for the psychometric model being employed, and scale-referenced item statistics. The following outlines the analysis to be replicated by the Contractor. The IRT item statistics to be calculated are the following:

Item parameter estimates, including, but not limited to:

#### ***For the Rasch Model***

- b-parameter (difficulty) estimates
- step-parameter estimates (for CR items)
- standard errors of all parameter estimates
- flags for potentially poor items

- Very low  $b$  estimates
- Very high  $b$  estimates
- Unexpected negative step parameter estimates (e.g., reversals)
- Very large step parameter estimates

***For 2-PL Models***

- a-parameter (discrimination) estimates
- b-parameter (difficulty) estimates
- step-parameter estimates (for CR items)
- standard errors of all parameter estimates
- flags for potentially poor items
  - Very low  $b$  estimates
  - Very high  $b$  estimates
  - Unexpected negative step parameter estimates
  - Very large step parameter estimates
  - Negative or very low  $a$  estimates
  - Very high  $a$  estimates

***For 3-PL Models***

- a-parameter (discrimination) estimates
- b-parameter (difficulty) estimates
- c-parameter (pseudo-guessing) estimates
- step-parameter estimates (for CR items)
- standard errors of all parameter estimates
- flags for potentially poor items
  - Very low  $b$  estimates
  - Very high  $b$  estimates
  - Unexpected negative step parameter estimates
  - Very large step parameter estimates
  - Negative or very low  $a$  estimates
  - Very high  $a$  estimates
  - Very high  $c$  estimates

### **Item Fit Estimates, Including**

- For the Rasch Model
  - INFIT
  - OUTFIT
  - INFIT flag for potentially poor items
  - OUTFIT flag for potentially poor items
  
- For the 2- and 3PL Models
  - Appropriate fit indices for 2- and/or 3-PL models
  - Fit flags for potentially poor items

Contractor and verification vendor will summarize its replication analyses in written form as a chapter in the Technical Manual. Any differences and/or discrepancies must be examined and explained.

Contractor must complete the analyses, as indicated below.

#### **Analysis Set 1—Pre-Equating Scaling**

Two key components of the test scaling are provided by the MDE program prior to test administration. The test forms are detailed in a test map spreadsheet that provides information on item scoring, form composition, and organization. Within the test map the item parameter analysis information from previous field tests is presented since test items have been previously calibrated to the reporting scale through item response theory based on the data collected in previous years a pre-equating analysis can be done to produce preliminary raw score to scale score tables.

##### Step 1. Determine Test Form Item/Point Counts and Identify Item Parameters

Test maps are used to provide the number of test items, test points, and IRT equated difficulty parameters.

##### Step 2. Pre-Equate Based on Field Test Values

Raw Score to Scale Score tables, or theta to scale score conversion equations, are developed for each test form using the appropriate IRT scaling software.

##### Step 3. Develop Comparison Spreadsheets

Raw to Scale Score tables or conversions from the MDE and the independent verifier are compared to determine if the scale scores, error term, and performance level are equivalent. How much of a difference is flagged will be determined by the MDE.

#### **Analysis Set 2—Post-Equating Scaling**

A preliminary raw scale to scale score tables or conversion equations are developed from the pre-equating process. The post-equating analysis takes place after student work has been scored and is based on a data set that includes at least 90% of the tested population. The post-equating analysis checks for the stability of the item difficulty parameters. Differences from the pre-equated values from the bank and the post-equated values from the assessment are scrutinized, with the ultimate decision on which values to use for scoring residing with the MDE.

##### Step 1. Check Data File for Unreasonable Values

In large data files, implausible item response values are often found. This is particularly true in scored data files. The backup psychometric Contractor must examine the item score fields for values that are not plausible given the form designation and the item key. When values are found, the MDE is to be notified immediately so a proper investigation can take place and a course of action can be determined.

##### Step 2. Initial Calibration Run

The data is analyzed by the prescribed IRT program to develop initial unanchored item parameters.

##### Step 3. Develop an Initial Comparison Spreadsheet

The initial Difficulties, n-counts, P-values, and Point-Biserials are compared between backup contractor and independent verifier.

Step 4. Examine Item Stability

If the difficulty value from the Pre-Equating differs by more than the prescribed MDE criteria from the Post-Equating value (currently a displacement value of .5 is used), the item is dropped from the equating of post values to item bank values. As is the case with other analyses, the dropping of items is at the discretion of the MDE.

Step 5. Post-Equating WINSTEPS Run

An equating constant between bank values and initial IRT calibration values will be developed using common items that are not dropped in Step 4. The equating constant is then applied to the initial calibration run to put the item difficulties on the original scale. New raw score to scale score tables or conversion equations will be generated.

Step 6. Develop Post-Equating Comparison Spreadsheet

Raw score to scale score tables or conversion equations are again compared between the backup psychometric Contractor and the verification firm to determine convergence. Final decision rests with the MDE.

**Analysis Set 3—Field-Test Item Analysis**

Field-test items are analyzed to provide item data for committee review and parameter values for future form scaling and equating. All forms contain field-test items. The analysis consists of information about the performance of the item for the total population and item performance for ethnic and gender groups that *may* yield differential item performance statistics.

Step 1. Check Data File for Unreasonable Values

In large data files, implausible item response values are often found. This is particularly true in scored data files. The backup psychometric Contractor must examine the item score fields for values that are not plausible given the form designation and the item key. When values are found, the MDE is to be notified immediately so a proper investigation can take place and a course of action can be determined.

Step 2. Item Statistics for the Total Group

Analyses will first be run by grade and content area on all forms to develop item parameters, p-values, and point-biserials. The operational items are to be used as base values and their difficulty parameters fixed so field-test item parameters can be placed on the same scale.

Step 3. Item Statistics for Ethnic and Gender Group and Calculation of Differential Performance Indicators

The data will also be analyzed by ethnic/gender groupings: female/male and African-American/White. N-counts, p-values, and point-biserials are calculated. Differential Item Performance statistics developed are the Mantel-Haenszel statistics and Standardized Mean Differences.

Step 4. Develop Field-Test Comparison Spreadsheet

The field-test comparison spreadsheet is item-based. For each item the total and group n-counts p-values, point-biserials, and item parameters are compared.

In all analyses prescribed above, the backup psychometric contractor must verify all results with the independent psychometric vendor. MDE will serve as final arbiter in the case where a replication does not take place.

**Standard Setting**

Standard setting will be the responsibility of the Standard Setting Contractor or of the MDE. Contractor will provide replication and review of the data analysis and calibrations before standard setting and during the process.

**Respond to Psychometric Challenges and Inquiries**

Contractor must assist the State with written materials describing the testing programs to various audiences—stakeholder groups and legislative groups.

**Consult With State on Psychometric Issues**

Contractor must consult with the MDE on psychometric issues.

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	TELEPHONE	CONTRACTOR #, MAIL CODE
	(919) 683-2413	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR:	MDE	Douglas Collier	517-241-4431	<a href="mailto:Collierd1@michigan.gov">Collierd1@michigan.gov</a>
BUYER:	DTMB	Angela Buren	517-373-0325	<a href="mailto:burena@michigan.gov">burena@michigan.gov</a>

CONTRACT SUMMARY:			
<b>DESCRIPTION:</b>			
<b>Administration, Scoring, and Reporting of Statewide Assessments – Department of Education</b>			
INITIAL TERM	EFFECTIVE DATE	INITIAL EXPIRATION DATE	AVAILABLE OPTIONS
Three Years	August 9, 2013	August 8, 2016	Three-one year
PAYMENT TERMS	F.O.B	SHIPPED	SHIPPED FROM
N/A	N/A	N/A	N/A
<b>ALTERNATE PAYMENT OPTIONS:</b>			AVAILABLE TO MIDEAL PARTICIPANTS
<input type="checkbox"/> P-card	<input type="checkbox"/> Direct Voucher (DV)	<input type="checkbox"/> Other	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>MINIMUM DELIVERY REQUIREMENTS:</b>			
N/A			
<b>MISCELLANEOUS INFORMATION:</b>			
N/A			
<b>ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:</b>			<b>\$36,865,309.00</b>

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N/A			
<b>MISCELLANEOUS INFORMATION:</b>			
N/A			
<b>ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:</b>		\$36,865,309.00	

**THIS IS NOT AN ORDER:** This Contract Agreement is awarded on the basis of our inquiry bearing the solicitation #RFP-AB-07111300017. Orders for delivery may be issued directly by the Michigan Department of Education through the issuance of a Purchase Order Form.

**Notice of Contract #:** 071B3200129

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**FOR THE CONTRACTOR:**

**Measurement Inc.**

Firm Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

---

---

**FOR THE STATE:**

Signature

**Kevin Dunn, Services Division Director**

Name/Title

**DTMB Procurement**

Enter Name of Agency

Date



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**ATTACHMENTS:**

**Attachment A – Pricing Structure**

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- Appendix A: Assessment Program Descriptions
- Appendix B: Materials Table
- Appendix C: Test Designs
- Appendix D: Accessibility and Accommodations
- Appendix E: Sample Answer Document
- Appendix F: Reserved
- Appendix G: Item Bank Description
- Appendix H: Secure Site Description
- Appendix I: Assessment Composition Requirements and Processes
- Appendix J: Reserved
- Appendix K: Reserved
- Appendix L: MDE File Format
- Appendix M: Guide to Reports
- Appendix N: Current Test Deck and User Acceptance Rules
- Appendix O: Independent Psychometric Quality Assurance Review
- Appendix P: Contractor Administration Plan and Project Schedule



## **DEFINITIONS—DTMB**

**24x7x365** means 24 hours a day, seven days a week, and 365 days a year (including the 366th day in a leap year).

**Additional Service** means any Services within the scope of the contract, but not specifically provided under any Statement of Work.

**Audit Period** means the seven-year period following Contractor's provision of any work under the contract.

**Bidder(s)** are those companies that submit a proposal in response to this Statement of Work.

**Blanket Purchase Order** is an alternate term for contract and is used in MDE's computer system.

**Business Day** means any day other than a Saturday, Sunday or State-recognized legal holiday from 8:00 a.m. Eastern through 5:00 p.m. EST unless otherwise stated.

**CCI** means Contract Compliance Inspector.

**Day** means calendar day unless otherwise specified.

**Deleted/N/A** means that section is not applicable or included in this Statement of Work. This is used as a placeholder to maintain consistent numbering.

**Deliverable** means physical goods and/or services required or identified in a Statement of Work.

**DTMB** means the Michigan Department of Technology, Management and Budget.

**Environmentally Preferable Products** means a product or service that has a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Such products or services may include, but are not limited to: those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxins either disposed of or consumed.

**Hazardous Material** means any material defined as hazardous under the latest version of Federal Emergency Planning and Community Right-to-Know Act of 1986 (including revisions adopted during the term of the Contract).

**Incident** means any interruption in any function performed for the benefit of a Plan Sponsor.

**Key Personnel** means any personnel identified in Section 1.031 as Key Personnel.

**New Work** means any Services/Deliverables outside the scope of the Contract and not specifically provided for under any Statement of Work, such that once added will result in the need to provide the Contractor with additional consideration. "New Work" does not include Additional Service.

**Ozone-depleting Substance** means any substance the Environmental Protection Agency designates in 40 CFR part 82 as: (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

**Post-Consumer Waste** means any product generated by a business or consumer which has served its intended end use, and which has been separated or diverted from solid waste for the purpose of recycling into a usable commodity or product, and which does not include post-industrial waste.

**Post-Industrial Waste** means industrial by-products that would otherwise go to disposal and wastes generated after completion of a manufacturing process, but does not include internally generated scrap commonly returned to industrial or manufacturing processes.

**Recycling** means the series of activities by which materials that are no longer useful to the generator are collected, sorted, processed, and converted into raw materials and used in the production of new products. This definition excludes the use of these materials as a fuel substitute or for energy production.



**Reuse** means using a product or component of municipal solid waste in its original form more than once.

**RFP** means a Request for Proposal designed to solicit proposals for services.

**Services** means any function performed for the benefit of the State.

**SLA** means Service Level Agreement.

**Source Reduction** means any practice that reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling, energy recovery, treatment, or disposal.

**State Location** means any physical location where the State performs work. State Location may include State-owned, leased, or rented space.

**Subcontractor** means a company selected by the Contractor to perform a portion of the Services, but does not include independent contractors engaged by Contractor solely in a staff augmentation role.

**Unauthorized Removal** means the Contractor's removal of Key Personnel without the prior written consent of the State.

**Waste Prevention** means source reduction and reuse, but not recycling.

**Pollution Prevention** means the practice of minimizing the generation of waste at the source and, when wastes cannot be prevented, utilizing environmentally sound on-site or off-site reuse and recycling. The term includes equipment or technology modifications, process or procedure modifications, product reformulation or redesign, and raw material substitutions. Waste treatment, control, management, and disposal are not considered pollution prevention, per the definitions under Part 143, Waste Minimization, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended.

**Work in Progress** means a Deliverable that has been partially prepared, but has not been presented to the State for Approval.

**Work Product** refers to any data compilations, reports, and other media, materials, or other objects or works of authorship created or produced by the Contractor as a result of and in furtherance of performing the services required by the Contract.



## **DEFINITIONS—Division Of Accountability Services (DAS)**

**Accommodation** — Accommodations are practices and procedures in the areas of presentation, response, setting, and timing/scheduling that provide equitable access during instruction and assessment for students with disabilities. Educators and administrators design accommodations in order to compensate for or mitigate a disability the student may have, or to address a physical, mental, or emotional need a student exhibits. Accommodations administered both in regular instruction and during assessments is one way that educators ensure that students have access to education in a way that is equal to their peers. Accommodations are intended to reduce or eliminate the effects of a student's disability; they do not reduce the learning experience.

**ACT<sup>®</sup> (American Collegiate Test)** — A curriculum- and standards-based educational and career planning tool that assesses students' academic readiness for college.

**Activity-based observation item** — In Michigan, this is a type of MI-Access Supported Independence or Participation performance-based item (SI/P) that takes into account the degree of assistance provided by the test administrator(s) to a student in completing an individual or group activity. The single digit response rating is A, B, C, or 1, 2, 3.

**ADA (Americans with Disabilities Act)** — Wide-ranging legislation intended to make American society more accessible to people with disabilities. It extends protection against discrimination to all State and local government services (including public schools) whether or not they receive Federal funds.

**Adaptive Test Engine\*** — This is the adaptive algorithm component of the CAT online assessment system. The adaptive algorithm is adjustable by assessment program and test (this includes grade level, content area, test form—such as accommodated forms—and time of testing).

The test specifications in the *Item Bank System (IBS)* contain the metadata that define the item criteria for the test bank and the algorithm (or engine) to use. The test delivery engine is expected to contain and use the correct algorithm (or engine) for test delivery when the test is being administered.

The Online Administration Contractor is expected to work closely with other Contractors and the MDE to ensure that, after successful user acceptance testing (UAT) with simulated student and item data is completed, the Adaptive Test Engine functions correctly with actual test data from students.

Since the purpose of the UAT for the Adaptive Test Engine is to evaluate the quality of tests before they are administered, the UAT produces output used by psychometricians to analyze test reliability, fidelity to test blueprint and test design, test item bank quality and characteristics, algorithm functioning and item exposure.

The adaptive algorithm will be replicable; i.e., in high stakes situations, the MDE will be able to identify how the adaptive algorithm determined which item to provide a student based on responses to previous test items.

**AERA (American Educational Research Association)** — The national interdisciplinary research association for scholars who undertake research in education.

**Alternate Achievement Standards** — Explicit definitions of how students are expected to demonstrate attainment of the knowledge and skills covered in the State's extended content standards.

**Alternate Assessment** — An assessment used to measure the learning progress and performance of students with disabilities whose IEP Teams have determined that it is not appropriate for them to participate in general education assessments (i.e., the MEAP or the MME). As allowed by Federal law, these assessments may be based either on grade-level achievement standards or alternate achievement standards.

**Answer Booklet** — A scannable multi-page document in which students record their responses to an assessment.

**Answer Document** — A scannable answer sheet that students use to record their responses to an assessment.

**AI (Artificial Intelligence) Scoring** — Computer-automated scoring of constructed-response items.



**AIF (Assessment Interoperability Framework)** – The framework being developed by the joint SIF/IMS working group to define how interoperability standards should be applied for an assessment platform in support of Common Core assessments.

**APA (American Psychological Association)** — The largest scientific and professional organization representing psychology in the United States.

**API (Application Programming Interface)** — A specification intended to be used as an interface by software components to communicate with each other.

**APIP (Accessible Portable Item Protocol) Standard** — A technical standard that focuses on accessibility in assessment items. APIP is an extension of the QTIv2.1 standard, allowing accessibility information to be included in a digital test item definition so that items can be transferred between APIP compliant item banks.

**Assessment** — A tool or instrument that measures what a student knows and can do. This measurement is often expressed as a score on a numerical rating scale, as well as a description of a performance level.

**Assessment Accommodation** — Changes the way a student accesses an assessment without changing the actual standards the student is working toward or the content being assessed. The goal of an assessment accommodation is to minimize the impact of a student's disability on his or her performance on an assessment. Decisions regarding assessment accommodations are to be made on a case-by-case basis and are to be based on relative appropriateness to a disability and the impact it has on the student. Decisions about assessment accommodations should be made well in advance of the actual assessment.

**Assessment Coordinator** — School or District Coordinator for MDE assessment programs. Currently, there are MEAP, MEAP-Access, MI-Access, and MME coordinators for general and alternate assessment programs. MME also has an Accommodations Coordinator for the Day 1: ACT<sup>®</sup>; Day 2: WorkKeys<sup>®</sup>; and Day 3: Michigan's custom developed components. Multiple assessment programs may be coordinated by a single person.

**Assessment Window** — The span of days over which assessments are administered.

**AYP (Adequate Yearly Progress)** — The measure used to hold schools and districts accountable for student achievement in reading and mathematics. AYP is based on State assessments, including the English Language Proficiency Assessment (ELPA), the Michigan Educational Assessment Program (MEAP), the Michigan Merit Examination (MME), MEAP-Access, and MI-Access. It includes measurement of proficiency (as measured by State assessment), participation rates in State assessment, and attendance or graduation rates. Schools can meet AYP proficiency targets in two different ways: (1) by meeting the objective for the grade or subject area, or (2) by showing sufficient improvement (otherwise known as "Safe Harbor"). For a public school or school district to make AYP, (1) the school as a whole and each measurable student subgroup will meet or exceed the State annual measurable objectives and have at least a 95% participation rate in the Statewide assessments, and (2) the school will meet the State's requirement for other academic indicators. For more information on AYP, visit <https://baa.State.mi.us/ayp/>.

**BAA(Bureau of Assessment and Accountability)** — Formerly known as the Office of Educational Assessment and Accountability, the BAA consisted of four offices: Office of Standards and Assessment (OSA), Office of Systems, Psychometrics, and Measurement Research (OSPMR), Office of Evaluation, Strategic Research and Accountability (OESRA) and the Office of Assessment Business Operations (OABO) and has been recently joined by the Office of Professional Preparation Services (OPPS) to form the Division of Accountability Services (DAS).

**Benchmarks** — While content standards describe what all students should know and be able to do in certain broad subject areas, benchmarks indicate what students should know and be able to do at various developmental levels (i.e., early elementary, later elementary, middle, and high school) within the content standards (Michigan Curriculum Framework, page 8).

**CEDS (Common Education Data Standards)** – A national collaborative effort to develop voluntary, common data standards for a key set of education data elements to streamline the exchange and comparison of data across institutions and sectors. (<https://ceds.ed.gov>)



**CEPI (Center for Educational Performance Information)** — Collects and reports data about Michigan’s K–12 public schools. Initiatives in data collection and reporting facilitate school districts’ compliance with the Federal *No Child Left Behind Act of 2001* and the Michigan Department of Education’s accreditation plan, *EducationYes!*

**CAT (Computer Adaptive Test)\*** — A computer adaptive test is one in which the next test question is selected (and typically administered) by a computer algorithm based on the student’s performance on previously administered items. In such a way, an assessment can be tailored to the individual student’s response, thereby adding precision to the resulting scores since students only see the test questions most appropriate for them.

**CCR (Change Control Request)** — In Michigan, the process to alter the Specifications or the Statement of Work.

**CCSS (Common Core State Standards)** — English language arts and mathematics standards for grades K–12 that were developed by a State-led group of educational representatives, the National Governors Association Center for Best Practices and the Council of Chief State School Officers.

**Concurrent Users** — Users who are logged in and using the Online Test Delivery System at any given time

**Content Area** — Course or discipline of study, including reading, mathematics, science, social studies, and writing. (Content areas can also include languages, art, music, theater arts, and other disciplines not typically assessed on Statewide assessments.)

**Core GLCE** — A Grade Level Content Expectation, or GLCE, that measures an essential skill/content area.

**Cut Score** — A specific point on a score scale, such that scores at or above that point are interpreted or acted upon differently from the scores below that point (Standards for Educational and Psychological Testing, 1999).

**DAS (Division of Accountability Services)** — Formerly known as the **Bureau of Assessment and Accountability**, the DAS currently consists of five offices: Office of Standards and Assessment (OSA), Office of Evaluation, Strategic Research and Accountability (OESRA), Office of Systems, Psychometrics, and Measurement Research (OSPMR), Office of Accountability Business Operations (OABO) and Office of Professional Preparation Services (OPPS).

**Digital Test Item** — An electronic item format allowing items to be transported using a standardized exchange file format or standard, such as QTI or APIP.

**Disability** — The Individuals with Disabilities Education Act (IDEA) has defined a disability as “mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance, an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities.”

**EDT** — Eastern Daylight Time.

**Economically Disadvantaged** — A student from a family with an annual income below a level that is based on low-income thresholds according to family size published by the U.S. Bureau of the Census, adjusted annually for changes in the Consumer Price Index. These students are eligible for free and reduced-price meals.

**EEM (Educational Entity Master)** — This is the single repository for all statewide school and district information. It is managed by Center for Educational Performance Information (CEPI), which is part of the Department of Technology Management and Budget. EEM data required for assessments (school, district, Intermediate School District) are transferred to the DAS Secure Site. Contractor access to these data will be provided via web services or direct table read from the DAS Secure Site database.

**ELA** — English Language Arts, subjects or content areas that include reading, writing, listening, and speaking in the Common Core State Standards. ELA aims at developing the student’s comprehension and capacity for use of written and oral language in English.

**Electronic Document Management Site (Master data repository site\*)** — The electronic repository of materials, processes, data, and services for the Contract. It serves multiple offices, departments, and Contractors and contains such items as schedules, requirements, and print-optimized forms of print-ready materials for Michigan’s assessment and reporting systems.



**ELL English Language Learner (also referred to as English learner)** — The Michigan definition is a student who has a primary or home language other than English who—because of limited proficiency in speaking, reading, writing, and understanding the English language—requires alternative programs or services to equally access the local educational agency’s total academic curriculum. These students are sometimes referred to as students with limited English proficiency (LEP).

**ESEA** — Elementary and Secondary Education Act.

**EST** — Eastern Standard Time.

**EGLCEs (Extended Grade Level Content Expectations)** — GLCEs indicate what elementary and middle school students should know and be able to do in specific grades within the content standards. Extended GLCEs are those that have been “extended” (or reduced in depth, breadth, and complexity) to more appropriately reflect what the student population taking an alternate assessment based on alternate achievement standards should know and be able to do given their cognitive functioning level, curriculum, and instruction.

**EHSCEs (Extended High School Content Expectations)** — HSCEs indicate what high school students should know and be able to do in high school within the content standards. Extended HSCEs are those that have been “extended” (or reduced in depth, breadth, and complexity) to more appropriately reflect what the student population taking an alternate assessment based on alternate achievement standards should know and be able to do given their cognitive functioning level, curriculum, and instruction.

**Extended response** — Constructed-response items that require AI and/or handscoring to determine a student’s performance on an assessment task or essay item.

**Field Test** — A test administration used to check the adequacy of testing procedures, generally including test administration, test responding, test scoring, and item test reporting. A field test is more extensive than a pilot test.

**Field-test Item** — A test question (often embedded within the operational items) that is inserted to obtain statistical information about its performance and ability to measure its intended content; this item does not count toward the student score; the statistical data are used in item selection for future tests.

**Formative Assessment** — The formative assessment process used by teachers and students during instruction to provide feedback in order to adjust ongoing teaching and learning and improve students’ achievement of intended instructional outcomes.

**GLCE (Grade Level Content Expectation)** — What elementary and middle school students should know and be able to do in specific grades within a content standard.

**HSCE (High School Content Expectation)** — What high school students should know and be able to do within a content standard.

**Homeless** — A homeless student is one who lacks a fixed, regular, and adequate nighttime residence. This includes students who live in shelters, abandoned buildings, cars, and public spaces, as well as students whose families share housing with other families because of economic hardship or who live in motels, hotels, trailer parks, or campgrounds.

**Home-schooled** — Students who are receiving instruction at home and take the State assessment in their local school district. Public school districts are required to administer State-level assessments to home-schooled students who wish to be assessed.

**IDEA 1997** — The Federal Individuals with Disabilities Education Act, which describes and regulates educational opportunities for individuals with disabilities. It also requires that students with disabilities be included in Statewide assessments. Reauthorized in 2004.

**IEP (Individualized Education Program)** — A written Statement for each child with a disability that is developed, reviewed, and revised in a meeting in accordance with the Individuals with Disabilities Education Act regulations.



**Interim Assessment** — Assessments that provide educators with actionable information about student progress at determined intervals throughout the year.

**ISD** — Intermediate School District.

**IT** — Information Technology.

**IBS (Item Bank System)** — The MDE Item Bank System is a State-developed web-based application that encompasses all of the following functions within a single framework: the Complete Item Development Life Cycle, Test Development Processes, and Test Composition Process.

**LEP (Limited English Proficient)** — The terms “limited English proficient” or “English language learner,” when used with respect to an individual, mean someone who

- is aged 3 through 21;
- is enrolled in or preparing to enroll in an elementary school or secondary school;
- (i) was not born in the United States or whose native language is a language other than English; (ii) (I) is a Native American or Alaska Native, or a native resident of the outlying areas; and (II) comes from an environment where a language other than English has had a significant impact on the individual’s level of English language proficiency; or (iii) is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and
- whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual (i) the ability to meet the State’s proficient level of achievement on State assessments described in section 1111(b)(3); (ii) the ability to successfully achieve in classrooms where the language of instruction is English; or (iii) the opportunity to participate fully in society.

**MDE (Michigan Department of Education)** — Under the direction of the Superintendent of Public Instruction, this agency carries out the policies of the State Board of Education and implements Federal and State legislative initiatives.

**MDE DAS (Division of Accountability Services)** — Formerly known as the MDE Bureau of Assessment and Accountability, the MDE DAS currently consists of five offices: Office of Standards and Assessment (OSA), Office of Evaluation, Strategic Research and Accountability (OESRA), Office of Systems, Psychometrics, and Measurement Research (OSPMR), Office of Professional Preparation Services (OPPS) and Office of Assessment Business Operations (OABO),

**MDE Data Mart** — A database used by MDE to collect and store assessment data at the student, school, district, ISD and State levels.

**MDE Secure Site** — This is the entry point, or *Portal\**, where end-users access all components (paper-and-pencil and online) of Michigan’s assessment and reporting systems. The Secure Site has a multi-tier security structure that controls user rights based on pre-established permissions. It is used for pre-identifying students for online and/or paper-and-pencil assessments by assessment program, grade level, and content area; for ordering materials and tracking order status; for displaying which students have tested; and for identifying possible administration issues.

**MEAP (Michigan Educational Assessment Program)** — One of five components of the Michigan Educational Assessment System, the MEAP is the State’s general education assessment for students in grades 3–9 and is used Statewide to assess student performance in specific content areas. The MEAP’s content is aligned to the Model Content Standards of the Michigan Curriculum Framework.

**MEAP-Access** — One of the components of the Michigan Educational Assessment System, it is the State’s Alternate Assessment based on Modified Achievement Standards (AA-MAS). It is used to assess students with Individualized Education Programs (IEPs) in grades 3–8 in the content areas of reading, writing, and mathematics. For this Contract, MEAP-Access will be processed and reported as accommodated forms of the MEAP. (In Fall 2013, there are two MEAP-Access forms.)



**MEAS (Michigan Educational Assessment System)** — The State Board of Education-approved assessment system in Michigan, which is comprised of five assessment programs, including the ELPA, MEAP, MME, MEAP-Access and MI-Access.

**MEIS (Michigan Education Information System)** — A security system implemented and used with various Michigan Department of Education (MDE) and Center for Educational Performance and Information (CEPI) applications.

**MI-Access** — Michigan’s alternate assessment system, which is composed of three assessment programs (Functional Independence, Supported Independence, and Participation) and is based on Alternate Achievement Standards (AA-AAS). As a component of the MEAS, MI-Access is intended for students for whom the MEAP, the MME, or MEAP-Access, either with or without assessment accommodations, are not appropriate as determined by a student’s Individualized Education Program (IEP) Team.

**MI-Access Functional Independence (FI) Assessments** — The MI-Access Accessing Print (reading), Expressing Ideas (writing), mathematics, and science assessments for students who have, or function as if they have, mild cognitive impairment.

**MI-Access Participation (P) Assessments** — The MI-Access English language arts, mathematics, and science assessments for students who have, or function as if they have, severe cognitive impairment.

**MI-Access Supported Independence (SI) Assessments** — The MI-Access English language arts, mathematics, and science assessments for students who have, or function as if they have, moderate cognitive impairment.

**Michigan Curriculum Framework (MCF)** — A resource for helping Michigan’s public and private schools design, implement, and assess their core content-area curricula. The MCF includes three components: content standards, benchmarks, and grade level content expectations, which represent rigorous expectations for student performance and describe the knowledge and abilities needed to be successful in today’s society.

**MMC** – Michigan Merit Curriculum.

**MME (Michigan Merit Examination)** — One of five components of the MEAS. It is the State’s general education assessment for students in grade 11 (or eligible students in grade 12) and is used Statewide to assess student performance in specific content areas. The MME’s content is designed to measure content standards of the Michigan Merit Curriculum.

**Modified Achievement Standards** — An expectation of performance that is challenging for eligible students, but may be less difficult than a grade-level achievement standard. Modified achievement standards will be aligned with a State’s academic content standards for the grade in which a student is enrolled. Thus, only the achievement standards are modified, not the content standards on which those modified achievement standards are based.

**MSDS (Michigan Student Data System)** — Data submitted by school districts, including discrete information about individual students, such as age, gender, ethnicity, and program participation. The data collected via the MSDS are used to meet the reporting requirements of the Federal No Child Left Behind Act of 2001, including the determination of Adequate Yearly Progress (AYP).

**Multiple Choice** — The most common type of selected-response item, consisting of two parts: a stem and various response options.

**NCLB (No Child Left Behind Act of 2001)** — An act that reauthorizes the Elementary and Secondary Education Act, including Title programs I–IX. It is designed, in part, to (1) increase the accountability of States, districts, and schools; (2) expand choices for parents and students, particularly those attending low-performing schools; (3) provide greater flexibility for States and local educational agencies in the use of Federal dollars; and (4) increase emphasis on reading, especially for young children. In addition, it requires States to implement a single accountability system for all public schools and all students, and increases the number of times students—including those with disabilities and limited English proficiency—will be assessed.

**NCME** — National Council on Measurement in Education.



**Nonstandard Accommodation** — Changes the construct being measured by an assessment or assessment item and, thus, results in an invalid test score. This includes any accommodation not deemed “standard” in the Assessment Accommodation Summary Tables approved by the State Board of Education.

**OEAA (Office of Educational Assessment and Accountability)** — Former name for the Bureau of Assessment and Accountability (DAS) in the Michigan Department of Education that oversees all Statewide educational assessment and accountability programs.

**Operational item** — A test question with statistical information that is selected for use on a test that measures student perform on content ; this item does count toward the student score; the resulting statistical data are used in item selection for future tests.

**OSA (Office of Standards and Assessment)** – An office of the Division of Accountability Services which is responsible for standards and assessment functions..

**OSPMR (Office of Systems, Psychometrics, and Measurement Research)** — An office of the Division of Accountability Services which is responsible for systems, psychometrics, and measurement research functions .

**Performance Task** — Collections of items and activities that require multiple steps and may include components of other items in the task. These activities are meant to measure capacities such as depth of understanding, writing and research skills, and complex analysis, which cannot be adequately assessed with traditional assessment questions.

**Pilot Test** — A test administered to a sample of test takers to try out some aspects of the test or test items, such as instructions, time limits, item response format, or item response options.

**Pilot Item** — A test question that is newly developed (often used in stand-alone testing) that do not count toward a student score.

**PNP** — Personal Needs Profile.

**Pre-ID** — Pre-identification of which students in each school will take which assessments with which accommodations.

**Proficient** — Sometimes expressed by a numerical “cut score” on a Statewide assessment, a student who is proficient in a content area demonstrates knowledge of that content area appropriate to grade-level expectations. Those expectations may vary based on the student’s grade level and instructional setting. See Grade Level Content Expectation (GLCE), High School Content Expectation (HSCE), English Language Learner (ELL) Standards, Extended Grade Level Content Expectations (EGLCEs), Extended High School Content Expectations (EHSCEs), and Extended Benchmarks (EBs).

**Progress** — Annual gains made by the student, as evidenced by the acquisition of what the student knows and can do or by an increase in assessment scores or performance levels.

**QTI (Question and Test Interoperability)** — An information model that describes question (item) and test (assessment) data and their corresponding results reports. The QTI specification enables the exchange of this item, test and results data between authoring tools, item banks, test construction tools, learning systems, and assessment delivery systems.

**SBE** — State Board of Education.

**Scoring Rubric** — Descriptive scoring schemes that are developed by teachers or other evaluators to guide the analysis of the products or processes of students’ efforts. Scoring rubrics are typically employed when judgment of quality is required and may be used to evaluate a broad range of subjects and activities (Practical Assessment, Research, & Evaluation, 2000).

**SDs or SWDs (Students with Disabilities)** — A student who is determined by an Individualized Education Program (IEP) Team or a hearing officer to have one or more of the impairments that necessitates special education or related services, or both, who is not more than 25 years of age as of September 1 of the school year of enrollment, who has not completed a normal course of study, and who has not graduated from high school. A student who reaches the age of 26 years after September 1 is a “student with a disability” and entitled to continue a special education program or service until the end of that school year.



**Selected Response** — In Michigan, this term is used to describe MI-Access Supported Independence and Participation items that take into account the degree of assistance provided by the test administrator(s) to a student in selecting a response to a picture card stimulus. The single digit response rating is A, B, C, or 1, 2, 3.

**SF (Spiral Fixed-Form)** — Computer-based test containing multiple forms, or versions, of a test booklet where one or more sections vary from one test taker to another.

**Short answer** – The student types or writes in a word or phrase. Smarter Balanced 2-point constructed-response items.

**SIS (Student Information System)\*** — A software application that is designed for education establishments to manage student data. In Michigan, MSDS system contains student data that are transferred to the MDE Secure Site system for assessment management purposes.

**Single Version of the Truth** – A technical concept describing the ideal of having either a single centralized database, or at least a distributed synchronized database, which stores all of an organization's data in a consistent and non-redundant form.

**Smarter Balanced Assessment Consortium (Smarter Balanced)** — A multi-State arrangement collaborating on a Federally sponsored grant to develop a comprehensive assessment system aligned to the Common Core State Standards (CCSS).

**Standard Accommodation** — An assessment provision given so that the effect of a disability is minimized and the student is provided an opportunity to demonstrate the degree of achievement he or she actually possesses. It does not change the construct being measured; therefore, it yields valid assessment scores.

**Summative Assessment** — A test that is used to evaluate student competency. A summative assessment is commonly delivered at the end of the school year during a fixed administration window and is commonly aligned with State standards.

**Technology Enabled (TN)** — Computer-based items that include features, such as reading the item to the test-taker in English or another language, such as Spanish or Arabic.

**Technology Enhanced (TE)** — Computer-based test items that allow students to reorder text, show evidence and use drop-down menus for responses.

**Test Administration\*** — Management of test windows, proctor assignment, class/group assignment for reporting, and student identification methods are components of the DAS Secure Site. This information is provided to administration Contractors via a direct table read or web services interface.

**Test Cycle** — Refers to the period of time, usually a range of dates, for administering an assessment. In Michigan, current assessment cycles are either fall or spring, with a specific date range for each. Interim assessments will have pre- and post- test cycles, which are fall and spring for year-long subjects or courses; September and January or February and May for ½ credit courses.

**Test Delivery\* for Online Assessments** — The overall responsibility of this component is to securely deliver the assessment to the student, securely store the student responses, store other information about how the student responded (i.e., time to answer, time to render for the student, etc.), and deliver the test items in the proper accessible format that the student needs. The Test Delivery System will also include two subcomponents:

- **Student Workstations:** This is a software subcomponent used to interact with the student. It is responsible for delivering the items to the student and gathering the responses and response metadata. It also contains the tools needed by the student to take the test (e.g., calculators, tables, accessibility tooling, etc.).
- **Proctor Workstation:** This is a software subcomponent the proctor uses to manage the test delivery. It allows the proctor to start and stop, or suspend and resume the test for the testing group or individual students. It also allows the proctor to monitor student progress, as well as helping students when they are having issues.

**Test Event** – The administration of an online computer-adaptive test.



***Test Packager\* for Online Assessments*** — In year one of the Contract, the Online Administration Contractor will provide the software to convert DAS IBS test items for use with the online test delivery engine. This software will have the capacity to receive Test Package files via a web service or direct table read interface of the DAS IBS system and, once properly rendered by the Online Administration Contractor, receive the online version of the item from the Test Delivery System for inclusion in the DAS IBS.

***Test Registration\**** — Michigan students are registered for assessments, including assignment of class/group numbers for test administration/proctors, and the same or different class/group numbers for reporting using the pre-identification component of the DAS Secure Site.

***Theta Value*** — Estimate of the relationship between a test item and the underlying attribute that is being measured. A distinction is made between the values that are actually obtained in a test setting and a hypothesized “true” underlying value.

***UIC (Unique Identification Code)*** — A State-assigned code that allows the State to track student information without using a student’s name

***WorkKeys®*** — A job skills assessment system that helps employers select, hire, train, develop, and retain a high-performance workforce.

\*Smarter Balanced terms for online test components are italicized.



## Article 1 – Statement of Work (SOW)

### 1.010 Project Identification

#### 1.011 Project Request

The State of Michigan (the “State”) on behalf of the Michigan Department of Education (MDE), Division of Accountability Services (DAS) has issued this Contract to procure services and deliverables for the administration, scoring, and reporting of statewide assessment programs (summative and interim) and related projects.

This Contract will be for the school years of 2013-14, 2014-15, and 2015-16 and any agreed-upon options. The current and planned assessment programs listed below are part of this Contract, with the exception of MME Day 1-currently ACT<sup>®</sup>, Plus Writing, Day 2: currently WorkKeys<sup>®</sup>, and the English Language Proficiency Assessment (ELPA). All are noted below with an asterisk (\*).

1. The summative assessment programs and projects include the following:
  - Michigan Educational Assessment Program (MEAP)
  - Michigan Merit Exam (MME)
    - Day 1: College entrance examination (including a writing sample)\*
    - Day 2: Work skills examination (in at least reading and mathematics)\*
    - Day 3: Custom-developed components
  - MEAP-Access (Michigan’s alternate assessments based on modified achievement standards for students with disabilities enrolled in elementary and middle schools)
  - MI-Access (Michigan’s alternate assessments based on alternate achievement standards for students with significant cognitive disabilities), including:
    - MI-Access Functional Independence (FI, for students with mild cognitive impairment)
    - MI-Access Supported Independence (SI, for students with moderate cognitive impairment)
    - MI-Access Participation (P, for students with severe cognitive impairment)
  - English Language Proficiency Assessment (ELPA)\*
2. Planned implementation of future assessment programs include the following:
  - Interim Assessment Program
  - Smarter Balanced Assessment Consortium (Smarter Balanced) System

The Contractor must use a coordinated approach with MDE staff and other Contractors to plan and implement all tasks, subtasks, and activities related to this Contract that are to be conducted over the three year period of the Contract.

#### 1.012 Background

Michigan’s educational system consists of 56 Intermediate School Districts with 549 local school districts and 256 public school academies. Altogether, there are 3,536 schools serving over 1.5 million students.

MDE is responsible for development and administration of multiple K–12 student assessment programs, as well as the high-stakes use of the results of those programs for accountability and evaluation purposes. Therefore, the work performed by the Contractors must be of the highest quality, and must conform to the most recent *Standards for Educational and Psychological Testing* as published by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education.

Additionally, MDE has partnered with the Smarter Balanced Assessment Consortium, of which Michigan is a governing State for developing items, and eventually assessments, that are planned for use in interim and summative mathematics and English Language Arts (ELA) assessments, and projected to replace both MEAP and MEAP-Access in those content areas. MDE’s assessment administration and reporting efforts are planned to be implemented in concert with, and parallel to, the assessment activities of Smarter Balanced. The first Statewide Smarter Balanced online implementation is scheduled for the 2014–15 school year.

In the 2014–15 school year the Online Administration Contractor must meet the Smarter Balanced assessment system requirements either by using a Contractor’s online assessment system or Smarter Balanced assessment system components. Either system must support online administration of Michigan’s summative and interim tests and the Smarter Balanced system standards and requirements, and interface with the MDE Secure Site.



MDE anticipates that MI-Access mathematics and ELA assessments will also be replaced by consortium-developed and administered assessments in the 2014–15 school year. However, MI-Access science and social studies assessments will be administered as part of this Contract.

MDE and the Assessment Administration, Scoring and Reporting Contractors are responsible for ensuring that all tasks and activities carried out as part of the Contract comply with all legislation, regulations, and policies surrounding assessment(s). These include, but are not limited to the following, where applicable:

- The Federal reauthorization of the Elementary and Secondary Education Act (ESEA), currently known as the No Child Left Behind Act of 2001, or successor legislation
- The Federal Individuals with Disabilities Education Act (IDEA), or successor act
- The Federal Americans with Disabilities Act (ADA), or successor legislation
- The Federal Family Educational Rights and Privacy Act (FERPA), or successor legislation
- The Federal American Recovery and Reinvestment Act, its various components, or successor legislation
- The ESEA Flexibility Request approved by the U.S. Department of Education (USED), July 2012
- The Federal guidelines and regulations regarding NCLB, IDEA, ADA, or ARRA, including both specifications for assessment programs as well as specifications for accountability using the results from those assessment programs
- The Michigan State School Aid Act, or successor legislation
- The Michigan School Code, or successor legislation
- The Michigan Assessment of Remedial Assistance Programs, or successor legislation
- The Michigan State Board of Education (SBE) policy on learning expectations for Michigan students, or successor policies
- The Michigan SBE policy to include all students in the Michigan Educational Assessment System, or successor policies
- The Michigan SBE policy regarding testing of Limited English Proficient (LEP) students, who are referred to as English Learners, or successor policies

All of the assessment programs developed and administered by MDE are mandated by one or more of the laws and policies listed above. As such, Michigan's assessment systems are subject to Federal and State audit, including all contracts that are required to implement the programs.

During the term of the Contract, new legislation and/or funding levels may determine that a current program be modified and/or other programs added. The Contractor must be flexible in accommodating such changes. All proposed changes must be approved through the Project Change Control Board and change management process. (See **Section 1.403.**)

MDE has four summative assessment programs and one interim assessment program that are included in this Contract. The summative assessment results are used to measure student proficiency for State and Federal reporting purposes. MDE currently administers summative assessments in the fall (MEAP, MEAP-Access, and MI-Access) and spring (MME and MI-Access) of the school year. MEAP-Access will be an alternate assessment of MEAP in the fall of 2013. Online testing of science and social studies will be implemented in the spring of the 2014–15 school year and are included in the Contract award.

- Fall Assessment Administration
  - General Assessment—MEAP is Michigan's criterion-referenced assessment given to most of Michigan's students in grades 3 through 9 to measure student proficiency with regard to the State's content standards, currently referred to as Grade Level Content Expectations (GLCEs).
  - Alternate Assessment—MEAP-Access, like MEAP, is based on the State's content standards. It is an alternate assessment based on modified achievement standards for students who are instructed with grade level content but are unlikely to demonstrate proficiency in the same timeframe as their peers. For this Contract, MEAP-Access is considered to be alternate form(s) of the MEAP.



- Fall and Spring Assessment Administrations
  - Alternate Assessment—MI-Access has three assessments (Functional Independence, Supported Independence and Participation) based on alternate achievement standards. These are alternate assessments for students with mild to severe cognitive disabilities. MI-Access is given in the fall for grades 3 through 8 and in the spring for high school students in grade 11. Content for each MI-Access assessment is based on content standards and expectations, GLCEs or HSCEs, which have been extended (EGLCEs, EHSCEs) specifically for each of these student populations.
- Spring Assessment Administration
  - General Assessment—the Michigan Merit Examination (MME) is Michigan’s high school criterion-referenced assessment with nationally recognized college-entrance and work skills readiness components (currently ACT<sup>®</sup>, WorkKeys<sup>®</sup>, and the Michigan component). It is given to students in grade 11 and to eligible 12<sup>th</sup> graders to measure student proficiency with the State’s content standards and expectations, referred to as High School Content Expectations (HSCEs).
  - Alternate Assessment—MI-Access, described above, is available in the spring for high school students with mild to severe cognitive disabilities.

Assessment programs are being developed and implemented in response to education reform efforts and a new emphasis on using assessments that measure student academic growth and determine educator effectiveness. Additional assessments that are part of this Contract include the following:

- The Interim Assessment Program—This assessment program is new and consists of optional, online pre- and post-test assessments at grade levels and in content areas that are not currently part of the summative State wide assessment programs described above. At the high school level, these assessments are in courses for which Michigan Merit Curriculum credit is required. There are currently model end-of-course assessments, called Secondary Credit Assessments for high school students to help teachers measure student proficiency in specific content areas. Online piloting, field-testing and implementation of the Interim Assessment Program are included in this Contract, starting with the 2013–14 school year for some grade level/content area combinations and in the 2014-15 school year for others (see Table 1).

Future assessment programs that are being developed with a multi-State consortium and planned to be implemented as part of this Contract include the following:

- Smarter Balanced Assessment Consortium (Smarter Balanced) System—Smarter Balanced is a consortium of States that are developing items for use as a system of interim and summative assessments designed to measure student proficiency with Common Core State Standards in mathematics and English Language Arts (ELA: reading, writing, listening and speaking), grades 3 through 12. Smarter Balanced assessments are designed for online Computer Adaptive Testing (CAT).

## **1.020 Scope of Work and Deliverables**

### **1.021 In Scope**

The scope of the work for the Contractor includes the primary tasks listed in this Contract as well as all supporting tasks. Through the last decade, the State of Michigan has developed and implemented customized systems that perform many of test administration and reporting tasks in a timely and accurate manner. To assist Contractors in understanding system flows and their role, a detailed description of the primary and required supporting tasks is provided in **Section 1.022**.

Over the course of the Contract, the design, structure, timing, and processes required for the execution of the MDE assessment programs and projects will alter in significant ways. One such shift is from the paper-and-pencil mode of test administration to online administration. The timeline for such changes is shown in the table below and is also reflected in the associated tasks described in **Section 1.022**.





Version Updated 6/14/2013

\* Not included in Contract

\*\* Interim post-test used as Summative

† Type of Test: (P = Pilot FT = Field Test OP = Operational Test)

1. PP = paper-and-pencil (2014-16 - used as backup to online delivery of summative tests)  
CAT = computer-adaptive (2,500 item pool per test event)  
SF = spiral fixed form, computer-administered (15% of SF items are unique FT items)
2. MI = Michigan-developed  
SB = Smarter Balanced Assessment Consortium  
*TBD = To be determined (MI- or SB-developed)*  
CEA = College entrance assessment (not included in Contract)  
WSA = Work skills assessment (not included in Contract)
3. "3-7", "3-8", "K-2" = grade-level assessments  
"4, 7", "5, 8", "6, 9", "11" = grade-span assessments  
"9-12", "8-12" = MMC required-credit course assessments
4. E, M = Elementary, Middle
5. PT = performance task  
MC = multiple choice  
SR = selected response (MI-Access only)  
ER = extended response  
SA = short answer  
TE = technology enhanced  
AB = activity based  
TN = technology enabled (K-2; accommodated forms)
6. Includes only MMC required-credit courses assessed by SB (e.g., Algebra I)
7. MMC required-credit courses not assessed by SB (e.g., Algebra II, Geometry, Stats & Probability)
8. MMC required-credit courses assessed by SB (e.g., English 9-11)
9. MMC required-credit courses not assessed by SB (e.g., English 12)
10. Day = MME testing sessions

The grades and content areas tested in each school year can be found in Table 1. Additional **Table 1** requirements include the following:

- All paper-and-pencil and online field-test items are embedded within operational forms; schools electing to participate in the Interim Assessment Program will administer field-test items as part of the online administration session.
- Paper-and-pencil versions of the online summative tests will be provided for schools and districts that lack the infrastructure to administer tests online. MDE anticipates this could be up to 65% (in 2014-15) and up to 35% (in 2015-16) of the Michigan schools required to administer summative tests for State and Federal accountability purposes.
- The Interim Assessment Program will offer operational pre- and post-tests online for schools electing to administer interim assessments.
- Starting spring 2015, interim post-tests will be used as the summative test for science (grades 4 and 7) and social studies (grades 5 and 8).

MDE will provide software, associated implementation services, and the application hosting necessary to meet the State of Michigan's requirements for a computer-based, adaptive Online Test Delivery System for the administration, scoring and reporting of all online assessments (See **Diagram 1.1**). For an expanded description of the Online Test Delivery System requirements, please reference Michigan's IT Systems Architecture information in **Section 1.022**.

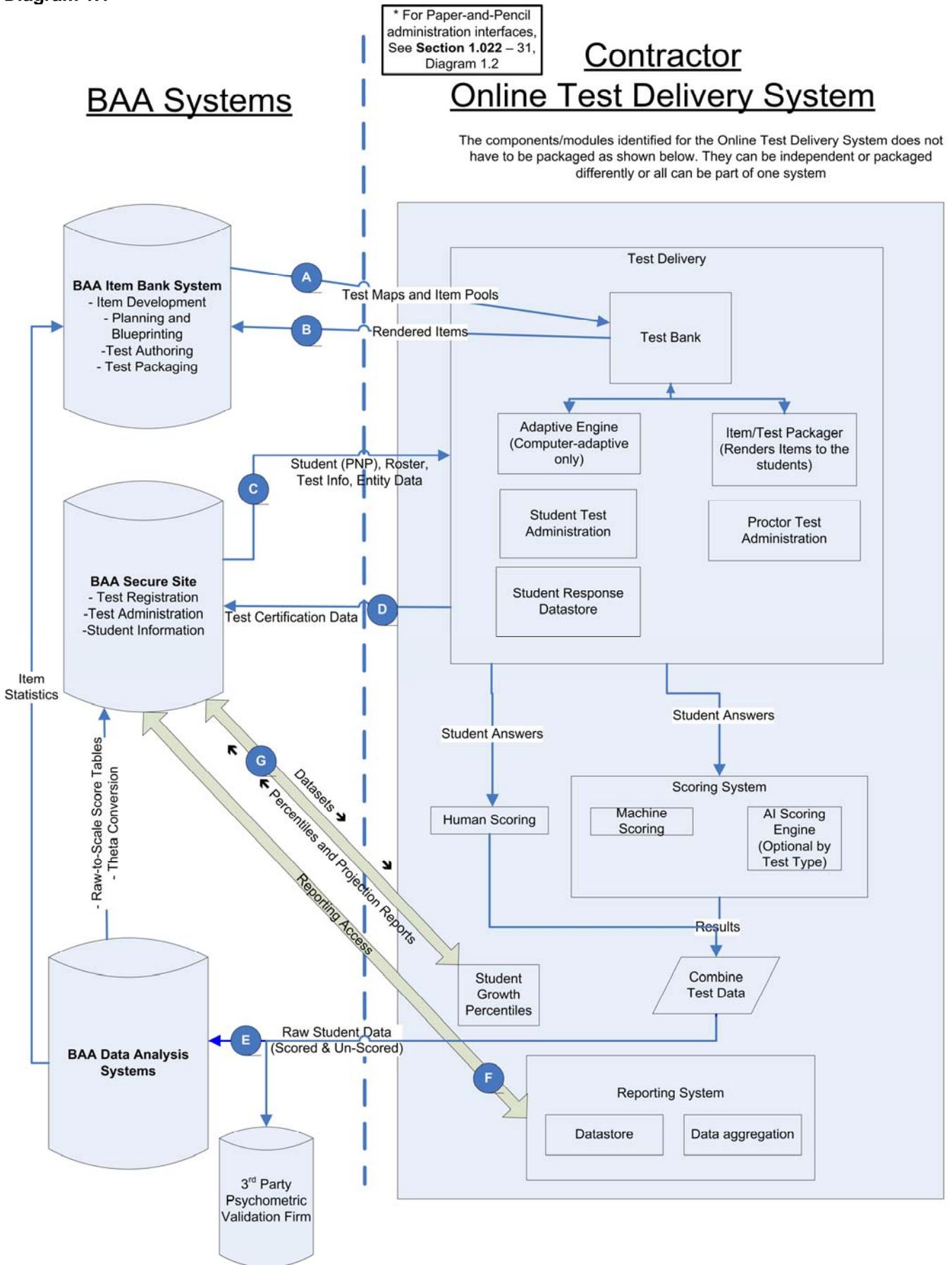
The State of Michigan has two proprietary systems that interact with administration Contractors on a regular basis: The MDE Secure Site and the MDE Item Bank System (IBS). The MDE Secure Site is a web-based test data management system. In addition to pre-identification of students, ordering and tracking of test materials, and rosters of students tested and not tested, the MDE Secure Site is capable of assigning multiple educators to groups of students for test administration and/or reporting purposes. It is currently being updated to include a number of enhancements, including use of the MEIS single sign-on, and will be fully operational in July 2013.

The MDE IBS is an integrated system for item development, test development, and print optimized file (POF) delivery. Development of content expectations and test maps using item statistics is one feature that provides test item sequence for fixed-forms (both online and paper-and-pencil), eligible item sets for computer-adaptive testing (CAT), and answer key information for administration, scoring, and reporting Contractors. Both systems have a multi-tier security structure that restricts end-users to their areas of authorization. Contractors access data using table queries or by pulling data in XML format. The detail for these MDE systems, formerly referred to as Bureau of Assessment and Accountability (BAA) systems, is included in **Diagram 1.2**.

The transport of items from IBS to the Contractor in QTI v2.1-compatible format (and APIP when the standard is finalized) is also important.



Diagram 1.1





**Diagram 1.1 – Interface Descriptions:**

- A. Test Maps and Item Pools — Test maps and item pools are retrieved by the Online System.
- B. Rendered Items — Test items in their online-rendered State are sent to the Item Bank System.
- C. Student (PNP), Roster, Test info, Entity Data — All information related to test registration is retrieved by the Online System.
- D. Test Certification Data — Student “tests-taken” data are sent to the BAA Secure Site. (includes Tested Roster)
- E. Raw Student Data — Scored and un-scored raw student test data are sent to the BAA psychometric team, or Contractor back-up psychometric services, as well as to the third-party psychometric firm.
- F. Reporting Access — Bi-Directional transfer of test data as follows:
  1. Final test results are retrieved by the Online Reporting System
  2. Teacher and student roster (group) data in the BAA Secure Site are retrieved by the Online Reporting system.
  3. Test data in the Online Reporting System are accessed by the BAA Secure Site
  4. Student-level and aggregated testing data are sent to the BAA Data Mart.
- G. Student Growth Percentiles – Student assessment data are retrieved by the Online System. Student Growth Percentiles and related reports are sent back to the BAA Secure Site.

The administration and reporting of high-stakes statewide assessments are high profile activities, with results used for State and Federal reporting. As State and Federal reform efforts have been enacted, including assessing educator effectiveness and student growth, the complexities and demands placed upon the Michigan Educational Assessment Systems have grown. It is, therefore, imperative that MDE and Contractors work as partners in ensuring that the integrity of project management plans and processes are not compromised, that agreed-upon timelines are met, and that all deliverables, including test materials, administration processes, scoring, data analysis, and reporting are accurate, are appropriate for the intended audience, and encompass the highest standards.

In instances where the Contractor selects a Subcontractor to provide deliverables, all tasks will be accomplished by the Subcontractor in a timely and accurate manner. In such cases, the Subcontractor will perform all Contract deliverables assigned, working in close cooperation with MDE staff, and is subject to the same contractual agreements as all other Contractors chosen to perform Contract deliverables.

In providing systems and services for online administration and reporting, Contractors are encouraged to use technology standards and applications that support interoperability, innovation, and minimal cost of transfer. Consistency in the processes used, and the presentation of online items from one year’s assessment administration to the next year, is a critical Michigan requirement. At the request of MDE, all assessment data must be provided to MDE using established interoperability standards.

### **1.022 Work and Deliverables**

The Contractor must provide Deliverables/Services and staff, and otherwise do all things necessary for or incidental to the performance of work as set forth below. The Contractor agrees to meet or exceed all requirements as indicated within their written response and as provided for with any clarifications noted on the questions and answers for this Contract.

The Contractor must coordinate planning and schedules with other Contractors in performing all work deliverables, tasks, and subtasks awarded as part of this Contract.

### **General Information**

During the life of the Contract, Michigan’s Statewide testing in grades K through 12 is undergoing a major transformation, as described in **Section 1.021**.

In general, the Contractor must assist MDE in implementing high-quality deliverables and services for administering, scoring and reporting all assessment programs and projects included in this Contract. This also includes overall project coordination for all Contractors for Set 1 and Set 2 activities (See **Section 1.011**). These deliverables and services must be developed and implemented using quality assurance plans, including requirements gathering, management review and project control processes to sustain the implementation standards of the State assessments.

This section addresses information related to all activities of this Contract. The table in **Section 1.041** provides a sample test cycle, listing the required primary activities of current assessment programs in this Contract and associated dates for the 2013–14 school year (listing key milestone dates in bold). Primary tasks and supporting activities are presented in the same order below in order to assist the Contractor in understanding the tasks and the interrelated aspects of activities. Projected tasks and activities for the remaining two test cycles, 2014–15 and 2015–16, are also noted.

### **1. Planning for the Kick-Off Meeting and Test Cycle**

The Contractor will be responsible for project coordination with other Contractors, and will be referred to as the Project Coordination Contractor. The Contractor must work closely with MDE to organize, plan, and run a Project Kick-Off Meeting prior to the start of the 2013–14 school year.



- A. The Contractor must work closely with MDE and other Contractors to prepare a preliminary agenda and schedule(s) that will be sent to MDE for review and approval no later than 14 days in advance of the Kick-Off Meeting.
- B. Prior to each test cycle, MDE will provide the critical milestone dates. Contractors must use these dates to develop detailed schedules for completing all activities and sub-tasks. The schedules are submitted to the Contractor (on or before pre-specified date) for incorporation into the overall administration plan and coordinated project schedule for the upcoming test cycle. Contractors must share these documents with their project teams so that detailed schedules can be adjusted/updated for specific Contractor deliverables. Both the coordinated project schedule and all detailed schedules must be maintained by each Contractor's Project Director, updated as needed, and made available on the shared electronic document management site. (See **Section 1.022 #3** for more information.)
- C. An action item for this meeting will be the production of a MDE-approved baseline schedule conforming to the requirements set forth in **Section 1.041**.

## 2. Administration Plan and Project Schedule

- A. The activities (tasks and subtasks) addressed in the Contract require all Print and Online Contractors, MDE and stakeholders to design the overall administration plan for developing high-quality materials and processes for the State's K–12 assessment programs that are part of this Contract. The assessment windows and milestone dates for each cycle that are included in the sample 2013–14 cycle are pre-established, and therefore not a direct responsibility of this Contract. These dates are critical to the overall plan because they drive the need for timely completion of primary tasks and supporting activities.
  - 1. All pre-established critical milestone dates (in bold) are specified by MDE prior to the start of a test cycle and are to be considered "firm, fixed dates" that are nonnegotiable. The preliminary critical milestone dates are included in the table in **Section 1.041**.
  - 2. The Contractor must maintain a coordinated project schedule for all Print and Online Contractors and update as needed. The Contractor must implement all quality assurance processes that were included as part of the Contractor's work deliverables and as part of the project schedule.
- B. The Contractor, MDE, and other Print and Online Contractors must review administration plans and proposed weekly and monthly schedules for regular project management and coordination updates. **Section 1.041** details the appropriate project management procedures needed to ensure timely deliverables and the minimization of risk. The Contractor's plan for use with this Contract must receive MDE written pre-approval and include escalation procedures and the handling of change of scope requests and CCRs (see Appendix P).

## 3. Electronic Document Management Site

The Contractor must set up an electronic document management site using Microsoft's SharePoint software for the Contract that is shared with MDE and other Contractors included in this Contract, according to the following requirements:

- A. The electronic document management site will use Microsoft's SharePoint software to provide unified access to MDE and all Contractors for the duration of this Contract. The Project Coordination Contractor must work with MDE and other Contractors to design the directory structure, the naming conventions, the rules for what documents will be kept on the permanent repository, rules for formatting those documents, and rules for versioning and discarding previous versions, which will receive MDE written pre-approval,
- B. Project management documents (schedules, agendas, reports, meeting minutes, etc.); requirements, POFs of print-ready assessment materials, and all other documents related to this Contract must be kept in this permanent electronic documentation repository for the duration of the Contract.
- C. The Contractor must maintain the site, which will be used to securely transfer and maintain all electronic documents and files related to this Contract and are the property of the State of Michigan. This includes delivery of data and other documents according to timelines prescribed in this Contract, or by specific request of MDE Security to access this site will allow only key Contractor and MDE-identified and -approved staff access. The Contractor must coordinate the issuing of passwords and oversee the management of electronic document exchange with MDE.



- D. MDE reserves the right to have any individual's user identification code removed. MDE must be provided a complete listing of all user identification codes that have access to this site on a periodic or "upon request" basis, with a minimum of once before any files or documents are posted plus once per year thereafter. No more than one individual will be assigned to each user identification code. Each user identification code must be passcode restricted.

#### 4. Kick-Off Meeting

The key staff of the Print and Online Administration Contractors, MDE and any Subcontractors must meet to review project plans, schedules and activities. The goal is to coordinate the organization of all parties to successfully produce high-quality materials and processes required for the administration, scoring, and reporting of Michigan's assessments.

##### A. Location and Duration

The face-to-face meeting will take place in Lansing for two to three days. For additional information regarding meeting planning, see Section 1.024.

##### B. Synchronization of Preliminary Schedules

The Contractor must synchronize schedules and adjust as necessary for MDE approval.

##### C. Demonstration of MDE Architecture Components

MDE will provide an overview and brief demonstration of MDE's Secure Site, Item Bank System (IBS) and in-house composition, psychometric, and reporting services. MDE will address questions related to pre-identification of students, assessment material orders and tracking, requirements, data file structures, composition production schedules, test maps, IBS functions, reporting requirements, and any other topics needed to execute each assessment program.

##### D. Meeting Responsibilities (participant)

The Contractor must work with other Print and Online Contractors to provide leadership and supporting materials needed for the Kick-Off Meeting, such as the agenda and documents from the previous assessment administration cycle. The Contractor is responsible for all meeting costs (see **Section 1.024**).

#### 5. Quality Assurance Planning

The Contractor must provide a plan for updating existing MDE requirements, developing new requirements according to projected timelines, and conducting User Acceptance Testings (UATs) based on the following:

##### A. Requirements Gathering and Documentation

The Contractor and MDE must utilize Michigan-based components of current requirement documents for administering, scoring and reporting results of assessment programs as the basis for developing updated requirements.

##### B. UAT

The Contractor must describe the UAT that will be developed to ensure that all materials and processes (including hand-offs of data and deliverables) are accomplished and produced with 100% accuracy.

##### C. The Contractor's plan must receive written pre-approval from MDE.

#### 6. Distribution of Forms

The Contractor must provide plans for distribution of forms and/or items that are well suited to the mode of assessment administration used. For this Contract, there are two modes of test administration: paper-and-pencil, which currently uses stratified cluster sampling for most all summative tests and spiral fixed form, for use with print and online versions of tests. All procedures used for distribution of print or online forms or items must be based on MDE-approved requirements that have been determined through a collaborative requirements gathering process with the MDE Measurement Research and Psychometric team and the Contractor.

**Please note:** Because MDE employs pre-equating (the use of fixed item parameters from field testing) as a critical part of its equating and scaling methodology, it is critical that field-test (non-scored) items be calibrated with operational items in such a way that the pre-equated item parameters are representative of how those field-test items would behave if administered to all students. To ensure this outcome in MDE's current practices, multiple operational fixed forms, paper-and-pencil, are randomly distributed to buildings using a stratified cluster random sampling plan. This results in each building being assigned to a single form in addition to many districts that will be assigned a single form.



#### A. Stratified Cluster Random Sampling Plan

For the first two years of the Contract (2013-14, 2014-15), Michigan plans to continue using a stratified cluster sampling approach to help ensure adequate distribution of test forms and embedded field-test items across key building- and student-level demographics/characteristics in addition to geographic distribution throughout the State. MDE and the Contractor will finalize sampling plan requirements with the Contractor printing and distributing test materials (Print Contractor), which will be approved 30 or more days prior to the pre-determined date for finalizing print quantities per form.

1. The Contractor must provide a stratified cluster random sampling plan based on approved requirements using district form assignment per stratum. (See Contractor's 6 A plan).
2. The multiple operational fixed forms for paper-and-pencil tests must be randomly distributed to buildings using a stratified cluster random sampling plan, which is based on assignment of districts to one of three strata; forms are randomly assigned within each stratum. Districts that are assigned to a specific stratum may change depending upon changes in enrollment size, demographics, etc. MDE may revise stratum assignments annually, so Contractor deliverable schedules must take this into account.
  - a. Stratum I includes Detroit, Education Achievement Authority (EAA), Utica and Grand Rapids, Michigan's four largest districts in terms of pupil enrollment. Because of the diverse characteristics of these district populations and their size, the goal is to ensure that as many of the forms or unique sets of field-test items are dispersed within those districts. This means that in these four districts the sampling will be done at the building level, within the district.
  - b. Stratum II includes Flint, Saginaw, Highland Park, Muskegon Heights, Plymouth-Canton, Holland, and Lansing. It consists of seven districts with unique demographics that warrant special consideration for receiving more than one form.  
Each district in Stratum II receives multiple forms; only one form assignment per building. (The Dearborn school district, for example, is in this stratum due to the high proportion of Arabic-speaking students who are also ELLs in selected schools.)
  - c. Stratum III consists of all of the remaining districts. A district receives only one form of each test across all buildings within a given district. In other words, a district would receive the same form number for all of the assessments. Stratum III form numbers are assigned at random. (For example, Ann Arbor Schools might be a "Form 3" district, with Form 3 being assigned to all grades of ELA, mathematics, science and social studies across the entire district.)
3. Steps for developing the stratified random form assignment process. (Interface 7 – **Diagram 1.2**) Using mathematics for a specified grade/content area as an example, the steps are summarized as follows:
  - a. Compute "population values" across all forms for all variables of interest: percentage of limited English proficiency; percentages of white, black, Hispanic and others for ethnicity.
  - b. Randomly assign form to each school.
  - c. Compute the same set of statistics (see step 1) for each form; also compute the sample size for each form.
  - d. Compute the sum of the absolute difference between population values and sample values.  
Repeat steps two through four 5,000 times and pick out one sample. Criteria are: (1) smallest difference between population values from step 1 and sample values from step 3 across the variables; (2) similar sample sizes across forms.
4. The Contractor, MDE, and the Print Contractor must gather requirements for standardizing the file format for all assessments, which MDE will make available to the Print Contractor as a direct table read. (In fall 2013, the Contractor will use the existing file format for the initial pull of MEAP.)
5. Quality Assurance Plan (QAP) for Stratified Cluster Random Sampling Plan  
The Contractor must develop a QAP and updating the sampling plan based on existing requirements in coordination with MDE and the Print Contractor.
  - a. The sampling plan must be carried out in such a way that the forms, or field-test item sets, are distributed according to the stratum-specific rules while also ensuring that all forms are distributed before a second school within a district can receive a given form that had already been assigned to another school within that district.
  - b. It is critical that within Strata 1 and 2 all sampling be done without replacement, according to the defined parameters of the strata.
  - c. Accommodated Forms
    - 1) Accommodated forms are unique (i.e., Braille, Emergency (form 99) and make-up tests for MME, which are spiraled) and must not carry the building's designated form number.
    - 2) MEAP-Access (two forms) is considered an alternate form of the MEAP for distribution and reporting purposes, and may not carry the building's designated form number.
  - d. QAP and sampling plans must be reviewed and approved with the Print Contractor and MDE Measurement Research and Psychometric team providing final approval.



## B. Distribution of Spiral Fixed Forms

For a number of print and online versions of assessments, including MME, forms will be distributed using a spiral fixed-form approach.

The Contractor must provide a plan for distribution of spiral fixed forms based on MDE-approved requirements that have been determined through a collaborative process with MDE's Measurement Research and Psychometric team.

1. The Contractor must provide a sampling plan for spiraling fixed form tests based on the MDE requirements provided.
2. The plan for distribution of spiral fixed forms must be determined through a collaborative process with MDE's Measurement Research and Psychometric team and receive MDE's written pre-approval.
  - a. For print and online processes, the Contractor must propose a solution that leverages real-time administration data and student level demographics, along with physical arrangement of the test administration.
  - b. Printed forms are to be administered within each building for a grade and content area.
  - c. For online form distribution it is imperative that the exposure of the various forms be balanced and representative of the demographics of the State of Michigan.
3. The process must begin by computing State of Michigan population values for all of the variables to be included as sampling constraints. The current constraints contain, but are not limited to, the following variables: (Interface 7 – **Diagram 1.2**)
  - a. Gender (2 levels)
  - b. Ethnicity (7 levels)
  - c. SES (2 levels)
  - d. Special Education (2 levels)
  - e. English Language Learner (2 levels)
4. The number of forms, in combination with the demographics, must be used to determine the ideal form assignment at the student level.
  - a. Student demographic information must be used to assign forms by joining MDE Secure Site Pre-ID data with current administration statistics to administer the form that would contribute most to meeting the goal of a balanced and representative sample. The Contractor must provide a solution that leverages real-time administration data and student level demographics, along with physical arrangement of the test administration.
  - b. Each form is to be administered within each building for a grade and content area. When available, classroom/group information will be used to determine the demographic make-up of each school's potential sampling plan.
5. Quality Assurance Plan
  - a. For printed materials, form usage and demographic distributions must be pre-estimated; for online testing, form usage and demographic distributions must be monitored throughout the testing cycle.
    - 1) As part of the regular MDE data exchange (at least once per day), the Contractor must push data in a table format to MDE for ongoing review and monitoring of form usage and sample quality.
    - 2) Both print and online test form data must be analyzed to determine if it was a strong sampling plan, with all forms exposed in equal numbers (taking into account the possibility that the accommodated version was not unique), with each form exposed to appropriate proportions of the demographic constraints/variables. The proportions must be within a standard error of the population value.

## 7. Call Center(s)

The Contractor must provide a call center to handle phone calls and emails regarding Michigan assessments. The toll-free phone number is provided by MDE, which routes calls to the appropriate call center. Michigan Assessment Coordinators will use this/these number(s) or email address(es) to ask questions and clarify information.

A. The Contractor must host a call center for the duration of the Contract.

1. The Call Center(s) must be staffed by persons knowledgeable about each assessment program, including materials, processes, and use of Michigan's Secure Site for functions related to administration, scoring, and reporting.
2. The Call Center(s) must use three levels of support.
  - a. Level 1—The Contractor must provide coordinated Level 1 support for all Contractors included in this Contract. Level 1 Call Center agents must respond to routine questions that have approved answers.



- 1) Level 1 Call Center agents must use approved, scripted answers that have been documented for agents in User Guides, Test Administration manuals, FAQs, and other pertinent documents that have been provided as part of Level 1 training and are stored in a SharePoint repository for easy access and revision control.
  - 2) Other Contractors will provide training for responding to Level 1 calls, which are defined as routine questions that have approved, scripted answers. Examples of online testing questions include the following:
    - a) Questions about online testing preparation. These include questions about scheduling online test sessions, training test administrators on online procedures, Michigan policies and procedures, and installing secure browsers.
    - b) Questions during the start-up or beginning of the test window. These include queries about using the system, setting accommodations, understanding participation, and understanding how to create class testing rosters.
    - c) Questions during the ongoing administration. These tend to include resolving questions about system access, passwords, the proctor session, the student interface, and resolving issues involving network latencies.
  - 3) Other Contractors will provide multiple staff for the initial in-person training that will take place at the designated Level 1 Call Center. Initial training for online testing will include the following:
    - a) Training on the functionality of each component of the online testing systems, including the policies and procedures set forth in all the user guides and manuals.
    - b) Training based on each stage of an online administration: preparation, startup, and ongoing administration.
    - c) Training on the use of detailed scripts, which enable Level 1 agents to ask a series of questions to callers and thereby quickly diagnosing the system and point of issue with which the caller is experiencing difficulty.
    - d) Project-specific training on each assessment's major test administration requirements.
  - 4) Other Contractors will provide follow-up training, as needed for the following:
    - a) Subsequent test cycles;
    - b) Changes in systems or procedures;
    - c) Documented instances of Level I calls mistakenly transferred to Levels II and III; and/or
    - d) Level II and III calls mistakenly transferred back to Level 1 for resolution.
    - e) Clarification or resolution of communication and/or training procedures as identified by project management processes for escalation of issues (See Section 1.041)
  - b. Level 2—Highly technical, new or unique situations are forwarded to the designated Contractors or directly to a pre-assigned MDE staff member for response.
    - 1) Complex questions about shipment of print documents or connection issues with an online assessment system are examples of Level 2 calls.
    - 2) Level 2 and 3 Call Center providers requiring immediate electronic information (such as caller and school information) from the designated Level 1 Call Center for transferred calls, must provide the same and/or compatible software (used by the Level 2 and 3 Call Center) to the designated Level 1 Call Center.
  - c. Level 3—Requires email notification and follow-up phone call to designated MDE staff, who locates the answer and provides resolution or status with email response and return phone call to the Contractor's Call Center within two working hours of the original service request, and every 24 hours thereafter until a solution is found.
  - d. The Contractor must interface with the MDE Secure Site to obtain assessment coordinator and school information using a direct table read.
- B.** Staff must be available from 8 a.m. to 5 p.m. EDT/EST on Monday through Friday (excluding Federal holidays, but including summer vacation days) throughout the entire duration of the Contract.
1. During test administration, staffing must be available beginning at 7 a.m. EDT/EST. The Assessment Coordinators must use the Call Center number to ask questions.
  2. The staffing of this Call Center can be variable, but must be adequate that individuals are not
    - a. put on hold for long periods (5-minute maximum),
    - b. unable to reach someone due to busy signals, or
    - c. otherwise unable to receive assistance.
- C.** Based on an average estimate of 600 calls per month, with a peak of approximately 1,800 during each of the two MME assessment windows (initial and make-up), provide the following information for the Call Center response:



1. Provide call center software and version used.
2. Provide procedure for call monitoring and escalation.
3. Provide procedure for ensuring consistent responses to the same issues.

#### D. Quality Assurance Plan

1. The Contractor must provide Call Center Detail Reports on a monthly basis, providing:
  - a. Date/Time (hours, minutes and a.m. or p.m.) service request received, problem, and name and location of requestor.
  - b. Date/Time (hours, minutes and a.m. or p.m.) service request closed and resolution.
    - 1) Name of person providing resolution
    - 2) Service report control number
2. Other information also required for the monthly Call Center report includes:
  - a. Volume of calls by day and hour
  - b. Average time on hold by day and hour
  - c. Minimum and maximum hold time by day and hour
  - d. Number of dropped calls by day and hour
  - e. Average time on hold before calls were dropped by day and hour
3. Additional information may also be required for the monthly Call Center report upon request of the Contract Compliance Inspector (CCI) based upon experience with the performance of the Call Center and/or unanticipated types or volumes of support calls.
4. Requirements Gathering and Ongoing Project Management Processes
  - a. Requirements are gathered for Level 1 training,
  - b. UATs are conducted for installation and use of Level 2, 3 (or compatible) software at the Level 1 call center site.
  - c. Common call center project management processes are shared and followed, including issue identification and escalation procedures (see **Section 1.041**).

### 8. Test Form Development

MDE test development and psychometrics staff will be responsible for approving test forms that are developed using the MDE Item Bank System's (IBS) internally developed computerized blueprints or test-specific algorithms and will be used as appropriate. The Contractor must use MDE's IBS test maps for fixed-form test maps.

#### A. Fixed-Form Test Maps

For spiraled, fixed-form tests, the IBS makes the "test map" available to Print and Online Contractors via a direct table read. This is Interfaces 11 (Online) and 12 (Print), as described by the Interface Diagram, **Diagram 1.2**.

1. The test map provides test form data and descriptions by item for each test form printed.
2. The test map is based on the test blueprint and internally generated by IBS for each test type, defined by program, content, and grade.
3. There can be multiple forms for each test map. Test Maps for Braille and Emergency test forms are provided separately.
4. The test map lists the test item occupying each position in the assessment, the item, and several content-based and psychometric characteristics of each item (e.g. content standard, DOK, item position, p-value, IRT parameters, answer key, points possible).
5. The Contractor must analyze, review and validate each test map provided by MDE at the beginning of each assessment cycle to ensure that scoring and reporting programs are properly aligned with the test maps. In addition, the Contractor must ensure that POFs and/or XML scripts match test map contents.

### 9. Pre-Identification of Students

The MDE Secure Site produces the "Pre-ID" file of test-takers that will be made available to the Contractor via a direct table read, using Interfaces 7 (Print) and 9 (Online), **Diagram 1.2**. The MDE Secure Site currently provides two dates for initial and update pull(s) of fall pre-ID data. Pre-ID pulls are currently identified by date ranges. The Contractors must pull pre-ID student information according to a pre-established schedule for each test cycle as well as on demand.

#### A. Initial Pull

The Contractor pulls the initial file of pre-identified students for a test cycle on a pre-established date according to the schedule.

1. For fall 2013, the Contractor must provide the initial pull of MEAP pre-ID information for the Print Contractor.
2. When the updated MDE Secure Site is operational, other Contractors will provide their own pulls directly from MDE using a direct table read.



**B. On site and print scannable requirements gathering and UAT**

The Contractor (MI), MDE, and the Print Contractor must update requirements for printing barcodes (using spray-on, over print on machine-scannable answer documents and direct print on labels) to ensure that barcodes are in the correct location on the document for the scan/score processes and products used (such as ink) is of sufficient quality to prevent smudging, etc.

**10. Test Preparation**

The MDE IBS Test Map is currently used to generate an export of all assessment items as part of preparing tests to be printed, also known as test composition.

**A. Print Materials**

The Contractor must work closely with the Print Contractor (that is responsible for printing and distributing test materials) to ensure that the design and print specifications for barcodes on secure materials and machine-scannable answer documents can be successfully read with MI's electronic readers and scan equipment. Printed test materials include the following:

1. Scannable answer documents
  - a. MDE will provide standard design mock-ups and layout requirements for scannable answer documents for each assessment, grade and content area.
  - b. The answer document will contain fields for students to bubble in supplemental information to be scanned and added to the scored file.
  - c. Answer documents for some content areas, grades and assessment programs must also provide an area for constructed responses.
  - d. The Contractor must receive final POFs for approval from the Print Contractor prior to MDE final approval and print start date.
2. Scannable test booklets
  - a. In fall 2013, the Print Contractor must use Grade 3 Print Optimized Files (POFs) provided by MDE to create both the initial and emergency scannable Grade 3 Test Booklets. (Interface 12 – **Diagram 1.2**)
  - b. The Contractor must receive final proofs for approval from the Print Contractor prior to MDE final approval and print start date.
  - c. Final sign-off dates must be established in the MDE-approved project schedule(s). (See **Section 1.041**.)
3. Non-scannable test booklets
  - a. The Print Contractor must use Print Optimized Files (POFs) provided by MDE to create the Initial, Emergency (grades 4–9), and Make-Up (MME only) non-scannable test booklets currently used.
  - b. MDE must provide POFs of all non-scannable test booklets on the Contract's electronic data management site for the Print Contractor.
  - c. The Print Contractor must then conduct an independent proofing of the POFs for all test booklets of all assessment programs content areas, grade levels, and forms including Initial, Make-Up, Accommodated, and Emergency Forms of the tests.
  - d. The Contractor must receive final POFs for security barcode approval from the Print Contractor prior to MDE final approval and print start date.
  - e. A sample of each type of material for all print production copies must be provided to MDE immediately following the initial print run.
4. Accommodated Test Materials
  - a. The Print Contractor must produce all accommodated test materials. The accommodated versions are unique to the content and grade level for each assessment program. A table showing the types of accommodated versions that are available by assessment program is included with detailed descriptions of each (see **Appendix D: Accessibility and Accommodations**).
  - b. The Print Contractor must duplicate and distribute all compact disks (CDs) which contain the audio test accommodations.
  - c. The Contractor must receive final POFs of accommodated materials with security barcodes and machine-scannable materials from the Print Contractor prior to MDE final approval and print start date.
5. Supporting Materials for Test Administration
 

Test administration manuals are developed by MDE for all assessment programs that are included in a test cycle. The exception is the MI-Access manual that is used for both the fall and spring test cycles. A common security compliance form is developed by MDE for use with all assessments in a test cycle. Test Administration Directions are produced for each assessment program, content area, and grade level (if applicable). These items are produced by the Print Contractor in conjunction with MDE. Other supporting materials, such as the Return Verification Form, Material Return and Special Handling envelopes, as well as all materials needed for securing, organizing and returning test materials for scoring, are developed by MDE and produced by the Print Contractor, with MDE approval.



- a. Test Administration Manual (TAM) and Test Administration Directions
  - 1) The Test Administration Manual provides general information for each test cycle, including directions for Call Center hours, contact numbers, ordering and return of materials, etc.
  - 2) MDE also develops Test Administration Directions for each grade level and type of assessment.
  - 3) The manuals and directions must be made available to Michigan educators in both online and print format.
  - 4) POFs are produced by MDE Composition and electronically transferred to the Print Contractor. The production includes a multi-step editing process.
  - 5) The Contractor must receive final POFs from the Print Contractor for approval prior to MDE final approval and print start date. This includes the Contractor's final approval of directions for return and receipt of materials (secure and non-secure) for scoring. Please note: For MME, the Contractor makes initial edits to the MME standard time and accommodated test administration manuals and then works with MDE to produce the final drafts and POFs.
6. Pilot for Printing Machine-Scannable Documents from the MDE Secure Site
  - a. The Contractor will assist MDE with piloting the MDE Secure Site access to printable templates for machine-scannable, gray scale answer documents to be piloted during the 2013–14, 2014-15 test cycles.
7. Updating Requirements and UAT for Machine-Scannable Documents
  - a. The Contractor's hardware and software specifications must be used by MDE and the Print Contractor to update requirements for developing image-scannable documents.
  - b. The Contractor's UAT for image-scannable documents is referred to as the Scan/Edit UAT, which consists of 500 (or a mutually agreed-upon number) scannable answer documents that are pre-labeled with the same set of fictitious students and hand-filled bubbles designed to capture all bubbles on the scannable answer booklet or document.
  - c. The Contractor, MDE and the Print Contractor must work together to standardize scannable documents and pilot use of the MDE Secure Site to print pre-labeled, image-scannable, non-secure documents (security forms, answer documents, etc.) on site in schools and districts.
8. Updating Requirements and UAT for Secure Materials
  - a. The Contractor's hardware and software specifications must be used by MDE and the Print Contractor to update requirements for development and placement of security barcodes on documents.

## B. Printing of Material Return Documents

1. The Print Contractor is responsible for printing all documents required for the return of test materials according to print specifications provided by this Contractor. This includes the following:
  - a. Return Instructions
  - b. Header Sheets: At the request of the Contractor, this includes pre-printed header sheets for the 2013-14 year of this contract.
  - c. For MME only: An Administrative Forms envelope and an Irregularity Reports envelope: These are used in the return of MME materials after testing is complete. The Print Contractor must provide a means for returning materials that require special handling.
2. The Print Contractor will ship all printed materials to the Contractor according to a pre-specified date.
3. Quality Assurance Plan (QAP) for Print Materials
  - a. Update descriptions of paper-and-pencil (print) test material return documents and processes.
  - b. Determine distribution timeline and processes for packets of test material return documents.
  - c. Provide narrative of results for 5 a and b to be included in the Test Administration Manuals.
  - d. The User Acceptance Plan is based on updated print requirements.

## 11. Training of Test Administrators

The Contractor must work closely with MDE and other Print and Online Contractors to develop standardized training presentations for Michigan assessment programs. The training and meeting arrangements must be coordinated by the Contractor during this Contract. Please note: Individual Contractors are not responsible for MME workshop locations or refreshments (this is covered by ACT<sup>®</sup>).

- A. MDE will present important aspects of planning and administering the Michigan Assessment programs in a live video or webcast for each assessment program. The initial training videos will be recorded for subsequent workshops with Michigan Assessment Coordinators and Test Administrators. For MME, the workshops are for the training of MME Test Supervisors, Back-up Supervisors, and Test Accommodations Coordinators.



- B. The Contractor must provide information related to print and online testing (as applicable). Online testing must include information about the online test delivery system, availability of practice tests, identifying students to be tested, test administration groups and proctors, and authentication requirements for the online test delivery system.
- C. A draft of the training presentations must be submitted to MDE for review and approval, no less than 14 days prior to the training workshop.
- D. MME Test Administration
  - 1. For MME, training of test administrators is a joint presentation with ACT<sup>®</sup>, the Contractor(s) responsible for Day1 (ACT<sup>®</sup>) and Day 2 (WorkKeys<sup>®</sup>) of the MME.
  - 2. Contractor representative(s) must attend each training session to answer questions.
  - 3. There are currently three training workshops at selected locations in the State (1-day in September, 3-days in November, 1-day in February). The Contractor must provide 2-3 trainers per workshop this includes travel, and lodging costs.

## 12. Packaging and Distribution of Paper-and-Pencil (Print) Test Material Return Documents

- A. The Contractor must assemble packets of test material return documents by school and ship directly to schools or districts (as specified through the BAA Secure Site).
  - 1. The Contractor must deliver all documents required for the return of paper-and-pencil (print) test materials according to pre-specified dates. This includes the following:
    - a. Return Instructions
    - b. Header Sheets: At the request of the Contractor, this includes header sheets that the Print Contractor must provide for the 2013-14 year of this Contract.
    - c. Return shipment information and labels
    - d. For MME only: An Administrative Forms envelope and an Irregularity Reports envelope. The envelopes are used in the return of MME materials after testing is complete. The Contractor must also provide a means for materials that require special handling.
- B. Distribution of Material Return Documents
  - 1. The Contractor must ship test material return documents to arrive in schools by MDE-specified dates.
- C. Quality Assurance Plan and Requirements Gathering
  - 1. The Contractor must update requirements for test material return packaging and processes, which received MDE pre-approval in writing prior to implementation.
    - a. Pick-up of secure and non-secure test materials must be scheduled according to MDE-specified dates.
    - b. Develop Unit Acceptance Test based on updated requirements and information provided for Packaging and Distribution of Test Material Return Documents.

## 13. Test Administration

The Contractor must provide a Call Center with trained staff, test monitors for targeted monitoring visits, and information about possible test administration irregularities according to pre-established timelines.

- A. Communication During Test Administration
  - 1. The Contractor must use their Call Center to handle questions from the schools during test administration. See **Section 1.022 #7** for additional information.
  - 2. The Call Center must receive calls from the MDE toll-free number 1-877-560-8378, which links calls based on types of questions or issues identified by the caller's use of the key pad.
  - 3. New issues or questions are directed to MDE.
  - 4. Calls of possible test administration irregularities are reported immediately to designated MDE staff.
  - 5. Numbers and types of calls are reported to MDE according to pre-established reporting frequency.
- B. Contractor Responsibilities for Possible Test Administration Irregularities
  - 1. The Contractor must handle the reimbursement of test monitors appointed by MDE for the purpose of making targeted monitoring visits during the assessment windows.
    - a. For the MEAP assessment, MDE anticipates having 25 targeted monitoring visits each year.
    - b. For the MME assessment, MDE anticipates having five targeted monitoring visits each year.
    - c. For MI-Access and MEAP-Access assessments, MDE anticipates no more than 10 targeted monitoring visits each year.



- d. The Contractor must reimburse each test monitor at the rate of \$250/day plus travel expenses.
2. In addition to the targeted monitoring visits, the Contractor must handle the reimbursement of investigators appointed by MDE for the purpose of visiting schools that have been identified for investigation based on specific irregularities from previous testing administrations. These preliminary investigations may occur prior to, during, or following a testing window.
  - a. The Contractor will expect each investigation to have two investigators with the investigation lasting, on average, two days.
  - b. MDE expects no more than 10 investigations per school year.
  - c. The Contractor must reimburse each investigator at the rate of \$500/day plus travel expenses.
3. In addition to the targeted monitors and investigators appointed by MDE, the Contractor must provide Contractor staff members for approximately 40 random monitorings at schools selected by MDE. The approximately 40 random monitorings would be distributed among the MEAP, MME, MI-Access, and MEAP-Access assessment cycles as determined by MDE.
4. MDE may provide an additional number of MDE staff members who must visit schools to observe test administrations. Payment and expenses for these MDE staff members must be the responsibility of MDE.

**C. Critical Security Compliance Activities During Testing**

1. The Contractor must provide special security monitors, upon MDE's request, when serious security breaches occur, to accompany MDE staff and assist in securing compliance.
2. The Contractor(s) should expect no more than one critical incident per test cycle and must provide five monitors per day for six days duration. The Contractor must prepare its monitors to do such things as deliver test materials to the assessment room, monitor test administration by school staff, and return test materials to a secure location.

**14. Testing Certification Process—Tested Roster**

The MDE Secure Site provides a process for schools and districts to certify that the student enrollment is correct, students either not tested or unable to test is correct and that evidence is received confirming that all students (scheduled to test) either took the test (online) or answer documents were received for scanning (print). For both paper-and-pencil (print) and online testing, this MDE verification process is commonly referred to as "Tested Roster". A description of the Testing Certification Process - Tested Roster and the roles of MDE and the Contractor follow:

- A. The Contractor must provide information on all scanned answer documents through a direct database write to MDE (Interface 6 – **Diagram 1.2**) before tested roster opens (see **Section 1.041**).
- B. Tested Roster must be available on the MDE Secure Site for schools to review and identify any possible issues, such as a missing test.
- C. MDE will review possible issues, such as a possible missing answer document, using the test images of the paper-and-pencil answer documents, which must be made available to MDE prior to the opening of the tested roster.
- D. During the tested roster window, which opens after test administration, the Contractor must pull issues data from the MDE Secure Site.
- E. For print documents, the Contractor must research missing students and missing tests. The Contractor must scan and score found answer documents and correct the student data file for found students and/or tests and provide MDE with the corrected student data file.
- F. For online documents, the Contractor must send a daily list of students that have completed their assigned test, using a direct database write. (Interface D – **Diagram 1.1**)
- G. The Contractor must include updated demographic information from the Michigan School Data System (MSDS) in the corrected student data file provided by MDE. (Interface 6 – **Diagram 1.2**)

**15. Constructed-Response Scoring**

The Contractor must perform all constructed-response scoring, which includes the components of Human Scoring, Distributed Scoring and Artificial Intelligence (AI) Scoring. The Contractor must perform all tasks and subtasks related to the scoring of all constructed-response (CR) items.



Constructed-response scoring may be subcontracted if the tasks can be accomplished by the Subcontractor in a timely and accurate manner. In such cases, the Subcontractor must work in close cooperation with MDE staff to perform all Contract deliverables assigned and is subject to the same contractual agreements as the primary Contractor.

#### A. Rangefinding

In coordination with MDE staff, the Contractor must conduct rangefinding sessions to prepare the scoring rubrics for constructed-response items on assessments.

1. The Contractor is responsible for all costs associated with rangefinding meetings.
2. The Contractor must plan on rangefinding for all CR items once field-tested online and/or paper-and-pencil constructed responses are available for scoring, both during and/or immediately following the administered assessment.
3. Rangefinding meetings are held in Michigan with trained, active Michigan teachers from the content area and grade level tested. For Rangefinding Meeting specifics, refer to **Section 1.024**.
4. Rangefinding Implementation Steps
  - a. In preparation for rangefinding, the Contractor must work with MDE staff to identify a selection of schools/districts in order to ensure that papers selected for rangefinding represent the full range of student achievement as well as provide exemplar reader-training papers. The Contractor must make copies of all rangefinding papers needed by the rangefinding committee members to prepare scoring rubrics for the assessment items.
  - b. The Contractor must ensure that assessment items, student responses and scoring rubrics remain secure during and after the rangefinding session.
  - c. Rangefinding committee members must be trained using anchor papers from previous assessments or previous field tests. In the first year covered by the Contract, this must be coordinated with current Contractors for the programs.
  - d. As the final step in rangefinding for the assessments, the rangefinding committees for each grade/assessment combination must re-read all papers that have been grouped by the same score point to ensure consistency in applying the scoring guide.
  - e. If AI is used for scoring, range-finding papers (1,000 per constructed-response item) must be used for model building as a step in validating the AI scoring.

#### B. Artificial Intelligence (AI) Scoring

1. The Contractor must select the AI engine, which must be approved by MDE prior to use.
2. The Contractor must provide evidence as to the quality of the AI engine. This includes regularly scheduled performance checks for the scoring of constructed responses of a wide variety of new and previously scored student papers (both AI and handscored) using the AI engine.
  - a. Processes, which must be pre-approved by MDE, include testing all aspects of the AI scoring that must be used to score constructed responses.
  - b. Processes must include psychometricians, handscoring experts, and technical staff to ensure that the software is providing reliable scoring that is as accurate, or more accurate than, human scoring.
  - c. AI recalibration, retraining and delivery must be demonstrated and included as a required resource.
  - d. The AI engine must include a range of score points, types and styles of writing, and other types of constructed responses.
  - e. The AI engine must include an automated process to provide a randomly selected pre-determined portion of the papers to be handscored. (See Handscoring for more information.)
  - f. Scoring procedures must meet the same standards for accuracy and reliability that exist for human scoring of the same item type.
  - g. Resources for training the artificial intelligence scoring engine and evidence that the engine meets accuracy and reliability standards must be documented and included as part of the process.
  - h. AI validation must represent student responses across the entire population, including a range of score points, types and styles of writing.
  - i. Provide evidence that the AI engine performs as well, or better than, human readers.

#### C. Human or Handscoring

1. The Contractor must perform all required handscoring of constructed-response items. This includes all handscoring of print tests as well as a percentage read-behind of online test item responses scored using AI.
  - a. For online items, with AI scoring, the following guidelines are provided:
    - 1) The first time AI is used for a new type of item or score solution, there is a 20% human read-behind.
    - 2) The second time AI is used for the same type of item or score solution, there is a 10% human read-behind; and



- 3) The third time used, there is a 10% human read-behind.
- b. If AI is not used for a specific type of test within the Online Test Delivery System, 100% of all constructed-response items for print and/or online tests require human handscoring.
2. Materials and Documents
  - a. The Contractor must provide a mechanism for scoring the constructed-responses of students.
  - b. Describe the process for sending the student responses to print or online constructed-response items – including the method for selecting responses for AI read-behind (Online), frequency of transmission (via MDE) to the CR Contractor, and receipt/importing of answer documents/scores once scoring is complete.
  - c. For paper-and-pencil documents, scoring of constructed-response items can proceed when answer documents have been scanned and imaged.
  - d. For online testing, scoring of constructed-response items can proceed as soon as the response is provided in the online assessment system.
    - 1) Paper-and-pencil and online constructed responses are sent for Artificial Intelligence scoring.
    - 2) A percentage of AI-scored constructed-response items are human-scored as a read-behind (summative assessments).
    - 3) The Contractor must ensure that all scorers do not have access to any student information regarding each answer document except the written response to the item(s).
    - 4) All scorers must have a Bachelor's Degree. The names of all scorers must be provided to MDE for audit purposes, including demographics, educational background, and experience (including scoring).
    - 5) The Contractor must provide all training and supervision of these scorers, including their supervisors.
    - 6) The scoring of the assessments may occur inside or outside of the State of Michigan.
3. Handscoring Implementation Steps—The Contractor must implement and maintain a quality assurance process for handscoring activities which must include:
  - a. Random assignment of one reader to each constructed response.
  - b. Random assignment of a second blind reader to a 10% sample of all responses scored by any given reader.
  - c. Maintaining a mechanism that ensures a second reading of a difficult-to-score response upon the request of a reader.
  - d. Re-scoring of all responses scored by a reader identified as poor-performing, and elimination of that reader's scores from the data.
  - e. Ensuring that all handscoring activities are provided in an accurate manner.
  - f. Implementing and maintaining a quality assurance process for handscoring activities.
  - g. Locating and establishing sites within the State of Michigan for item scoring. Note: If the Contractor uses an electronic rating system for scoring, then physical location in Michigan is not required.
  - h. Providing the appropriate hardware and software necessary for handscoring (or e-scoring) operations.
  - i. Scoring word-processed answer documents that are used as an appropriate accommodation for students.
  - j. Taking immediate action following a scoring alert. The alert criteria and steps followed must be provided to the Contractor by MDE upon implementation of the Contract.
  - k. Taking immediate action following score inquiries and challenges. The score inquiry and challenge criteria must be provided upon implementation of the Contract.
  - l. Notifying by phone call and by letter, the superintendent of the school district immediately when readers encounter a possible child-in-danger paper. A photocopy of the student's response must be included with the letter. The letter must be sent using a courier with a reliable tracking system. A copy of the letter, student's response and courier's name and tracking code must also be sent to MDE. Alternatively, the letter along with the student's response may be scanned and sent via email to MDE with read-receipt enabled.
  - m. Maintaining scoring reliability among assessment items and provide MDE with reader production and reliability statistics on a daily basis, including reader training results. The following information must be faxed or electronically transmitted daily in an easily readable format that has been approved by MDE:
    - 1) Inter-rater reliability. (describe calculation)
    - 2) Percent of papers requiring a third reading.
    - 3) Daily individual reader reports for the first week and weekly reader reports starting the second week.
    - 4) Validity reports on reader scoring.
    - 5) Score distribution across score points.
  - n. Providing scoring data to MDE as requested, relevant to rangefinding and constructed-response item scoring. Please note: If MDE finds questionable scorer reliability indications, MDE has the right to have the affected papers re-scored at no cost to MDE (see 4c below).
  - o. Providing accurate results on student responses to constructed-response items in a timely manner.



4. Quality Assurance Plan for Handscoring:
  - a. The Contractor must establish and detail methods and thresholds for identifying poor-performing readers to be used in all handscoring operations, and must finalize those methods and thresholds in coordination with MDE. The Contractor must develop and describe the procedures to monitor scorer training, production, and reliability on a daily basis. The Contractor must describe handscoring standards and how they must be verified.
  - b. The Contractor must provide MDE with reader production and reliability statistics on a daily basis, including reader training results.
    - 1) Inter-rater reliability (describe calculation).
    - 2) Estimates of rater harshness (e.g. FACETS-style analysis of rater effects estimated concurrently with examinee achievement).
    - 3) Percent of papers requiring a third reading.
    - 4) Daily individual reader reports for the first week and weekly reader reports starting the second week.
    - 5) Validity reports on reader scoring.
    - 6) Score distribution across score points.
  - c. If MDE finds questionable scorer reliability indications, MDE has the right to have the affected papers re-scored.
  - d. The Contractor must perform the following tasks:
    - 1) Recruit retired or current teachers or school administrators as readers. This effort must be documented.
    - 2) Establish a procedure to screen scorers to ensure employment of reliable item scorers.
    - 3) Hire, pay, train, retrain, and fire scorers (i.e., item readers) as necessary.
    - 4) Ensure that the 10% sample handscored items selected for a second blind reader are analyzed, particularly in cases of non-adjacent scores and results provided to MDE. Definitions of analysis and procedures will be determined through a requirements gathering process.
    - 5) Scoring packets must be randomized or staggered so that papers from the same school and district are not scored together.
    - 6) Establish efficient paper flow procedures.
    - 7) Use predetermined reader comments when scoring the writing assessments at grades 3–8 to provide additionally enhanced feedback to students and teachers. Similar Reader Comments must be developed and used with the written pieces for the ELA assessments that must be administered.
    - 8) Use a scoring system that is a remote electronic scoring system. Explain operation of the system to prepare accurate, reliable, and secure results.

## 16. Return of Test Materials

- A. The Contractor must pre-arrange with a shipper to pick up all assessment materials from the schools according to a predetermined schedule.
- B. The Contractor must provide schools with directions for packaging and return of all materials, including telephone numbers for contacting the shipper directly if necessary.
- C. Audio (CD), video (DVD), enlarged print and Braille test booklets, and Reader Scripts are secure materials that schools must include in return materials shipments.
- D. The Contractor must provide a process to identify and distinguish between scorable and non-scorable materials being returned by the schools.
- E. The Contractor must provide shipping labels to affix to each box being returned to the Contractor for scoring.
- F. The Contractor must ensure the pickup of test materials immediately following initial testing and again after make-up testing.
- G. Schools will not be expected to make their own return shipping arrangements.
- H. The Contractor must provide the necessary return shipping labels in a Materials Return Kit sent to schools with test materials.
- I. The Contractor must allow packaging of multiple assessment programs for a single pick-up.



- J. The Contractor must establish a process for late return documents, collecting late return fees for all assessments except MME.
- K. The Contractor must explain the late return shipping services available and cost of each service.
- L. The Contractor must publish late return fees for all assessments (except MME).
- M. The Contractor must be available to prepare and participate in MDE webcasts associated with return of materials procedures.

## 17. Receipt of Printed Test Materials

The Contractor must receive and check in test materials as shipments arrive from the districts and schools.

### A. Missing Bar Codes

1. The Contractor must provide a listing of schools and number of students with missing bar codes.
2. The Contractor must establish the fees schools will be charged for missing bar codes and the late return of materials.
3. The Contractor must notify schools of the number of answer documents, missing bar codes and the associated fee.

### B. Missing Materials

1. The Contractor must provide a report of missing materials by a date specified by MDE.
2. The Contractor must notify schools of all missing materials.
3. The Contractor must provide schools with instructions for the return of all missing materials by a specified date.
4. The Contractor must provide MDE by a specified date with a list of schools and missing materials still outstanding after the first notification.

### C. Administrative and Irregularity Form Review

1. The Contractor must open and review the forms returned in the Administrative and/or Irregularity Forms envelopes.
2. The Contractor must provide MDE a summary of all irregularities reported.

### D. Quality Assurance Plan for Missing Materials

1. The Contractor must provide a process for timely identification of missing materials and provide a report back to schools requesting return of any missing materials and/or explanation of such.
2. The Contractor must provide regular reports to MDE of schools with missing materials and the status of responses from schools.
3. The Contractor must provide for follow-up contact with schools and districts via email and by phone, if necessary, to elicit a response.

## 18. Image Scanning of Print Documents

A. The Contractor must scan and image-capture answer documents, and edit and correct data.

B. The Contractor must use an image-capture system to scan all answer documents and answer booklets (currently used in grade 3).

1. The image capture must include a student bar code that is either over-printed or sprayed on for the initial pre-ID pull, or a pre-printed label for the update pull or new enrollees at the time of testing (See **Section 1.022 #10**).
2. The quality of the image must be at least 200 dpi with a 256-level gray-scale (8 bits per pixel). This allows darker mark, erasure analysis using images and provides high-quality images that can emulate traditional score processes and replace paper storage of scannable documents.
3. The student's selected intended mark (the darkest mark) in a string must be provided along with the raw score for a mark, pencil mark value and the scale used, where the 0 value of the mark is equivalent to paper and the highest value of the mark is provided.
4. All TIFF image documents must be indexed in a manner that allows for all of a single student's images to be indexed as a unit. The demographic data from the assessment document (bar code, lithocode, and scan batch code and date) must also be included in the record as identifiers of the student and index information. MDE requires an image of the entire document (not image clips or after-scan application of templates).



5. The Contractor must host the images to allow research and analysis to begin within one day of scan completion for a designated grouping or batch of documents.
6. All research and analyses are based on student data that are transaction-based in EEM and the MDE Secure Site. Regular transmissions of scanned batch data and access to indexed images, at least once each day using Interface 6 – **Diagram 1.2**, allows timely resolution of any Contractor or MDE research and analysis (erasures, duplicate student records, etc.).
7. The scanned image is used for Contractor and MDE edits and research (missing tests, duplicate tests, moves, etc.)
8. The Contractor must store the scanned answer document images for a period of three months.
9. At the conclusion of the three months, the Contractor must transfer to MDE, via two duplicate hard drives, the scanned answer document images from each paper-and-pencil test event for the purposes of image preservation.

#### C. QAP for Scanning

1. The Contractor must demonstrate that its scanners are capable of distinguishing between darker and lighter marks, and between actual student marks and stray marks or distortions caused by dust, dirt, misaligned answer documents, and so forth.
2. Michigan requires 100% verification of double marks, blank answers and assessments with only one or two bubbled-in responses.
3. The Contractor must use computer-based routines and/or human edit stations to ensure that the Michigan assessment data files are 100% clean and accurate.
4. Scanning and Data Correction UAT (to be held at Contractor Site)
  - a. The UAT for scanning is a Critical Milestone Date, pre-established for each assessment cycle. The Contractor must provide the QAP for ensuring the accuracy of the image-scan hardware and software for multiple batch loads over time.
  - b. The Contractor must create a mock scan test deck reflecting all scenarios that could be encountered during scanning as specified in the Requirements Document.
  - c. The Contractor must scan the scan test deck and MDE must approve the scan image file.
  - d. The Contractor must use the edit test deck to perform data correction edits that are approved by MDE.
  - e. The Contractor must have an established, agreed-upon procedure to check for missing barcodes and other data anomalies identified during scanning.
  - f. The mock scan/edit test deck must be created in such a way that it can be re-used for UATs of different test administrations or, if appropriate, for mock report UAT.
  - g. The Contractor must define methods for consistently determining outcomes in the case of ambiguous test forms.
5. Aggregate Data Test UAT
  - a. The Contractor must pull student data from MDE and aggregate. The Contractor must push student data to MDE for validation after the data have been pulled the updated demographics and scored the data.
  - b. The Contractor must push the aggregated student data back to MDE for validation.

### 19. Scoring of Print Documents

- A. The Contractor must score all image-scanned answer documents and booklets.
  1. The scoring system must translate all scanned bubbles, including demographic and multiple-choice (MC) responses, into right/wrong answers, and export images of constructed-response (CR) items for AI and/or handscoring. See **Section 1.022 #19** for more information on scoring constructed-response items.
  2. The system must be capable of translating images of item responses to designations of the answer option chosen (e.g. 1, 2, 3, 4 or A, B, C, D).
  3. The system must be capable of translating answer options to a score for each item (e.g. 0/1).
  4. The system must be capable of updating records by adding scores from the constructed-response items after they are handscored.
- B. Import and export of item scores
  1. A pre-equating process is used.
  2. Print and online score files must be exported to MDE for populating a scored file table to be used for combined reporting.
- C. MDE Conversion of item scores to scale scores
  1. Item scores are translated to scale scores using Item Response Theory (IRT).
  2. Scale scores are used to produce performance levels based on cut scores.



3. The scale scores must be calculated using combined machine-scored item responses, AI/handscored item responses and online/print results using a simultaneous IRT scaling procedure.

**D. Quality Assurance Plan**

1. All items must be scored accurately, efficiently, and reliably. All scoring information must be made available both to the CCI and to independent evaluators or auditors as required.
2. Image capture system must accurately scan all 6x6 and 6x5 inch bubbles on answer documents and answer booklets
3. The image capture must accurately include data from a student bar code (over-printed, sprayed on, or pre-printed label). (See **Section 1.022 #10**)
4. Contractor must provide a description of the scoring process, specifying the quality control measures for scoring, frequency of providing scan and score files linked to images and handling of all items including, but not limited to, verification of the scoring program, editing and resolution procedures for questionable answer documents (e.g., with multiple marks, poor erasures), editing processes and combining and aggregating multiple-choice response scores with constructed response scores at the school, district, county, and State levels.
5. All scan, score and QAP plans must be pre-approved by MDE.
6. Scoring UATs must be held at the Contractor's scoring site. MDE must provide staff members for each UAT; any necessary travel and lodging expense to be paid for by Contractor. See **Section 1.025**.

**20. Forensic Analysis of Test Administration**

A forensic analysis of student responses must be conducted by the Contractor to determine aspects (validity and reliability) of the test administration process that otherwise would not be known.

**A. Print Materials that are Machine Scanned**

1. Erasure Analysis
  - a. The Contractor must provide continuous updates that capture the number of erasures for each answer document (i.e., at the student level), including:
    - 1) the number of erasures that were wrong-to-wrong, wrong-to-right, right-to-wrong
    - 2) the proportion of each of the subtypes in relation to the total erasure count.
  - b. The Contractor must use a utility to provide an erasure analysis of scanned documents by batch and linked to scanned images at pre-determined intervals during the scan process with a complete summary file at the end of scanning.
  - c. The Contractor must also produce a summary report that computes the mean of each erasure index and the standard deviation by grade and content area. The Summary report must:
    - 1) flag student answer documents when MDE-defined thresholds are exceeded
    - 2) aggregate the number of flagged students by district, school, class group code, and teacher ID (where applicable)

**B. Quality Assurance Plan**

1. Requirements Gathering
  - a. The Contractor must schedule and participate in requirements gathering sessions with appropriate MDE staff to establish guidelines for delivery of files needed for forensic analysis.
  - b. The forensic analysis techniques must include, but will not be limited to, the detection of unusual erasure patterns, answer-changing behavior, response latency, gains analysis, pattern similarity and item exposure rates.
  - c. The Contractor must establish guidelines and timelines for interfaces needed.
2. UAT Plan
  - a. The Contractor must schedule and participate in requirements-gathering sessions with appropriate MDE staff to establish guidelines for delivery of files needed for forensic analysis.
  - b. The Contractor and MDE must gather requirements for forensic analyses.

**21. Receiving and Check-In Process for Scorable and Non-Scorable Documents and Materials** After testing, scorable and non-scorable materials are to be shipped in boxes provided by the Print Contractor.

- A.** The Contractor may elect to have boxes identified with labels applied by the school identifying them as Scorable or Non-Scorable.
- B.** The Contractor must provide return shipping labels assigned for use and tracking by the Contractor.



- C. The Contractor must pay all return shipping charges.
- D. Schools must be able to track materials shipments; the Contractor must provide MDE with tracking data during and following the shipping window.
- E. The Contractor must scan boxes as they are received in a secure area and notify shipper, school and MDE of any missing boxes.
- F. The Contractor must open all boxes and determine accuracy of the document counts provided by the schools.
- G. If the Contractor elects to separate boxes of scorable materials from non-scorable, the scorable must be sent for scanning; non-scorable materials must be initially checked to see if they contain scorables; and all non-scorables having security barcodes must be scanned for check-in.

## 22. Special Reports Processing

The Contractor must develop a plan to produce Custom Reports for schools or districts that have missed required shipping or testing deadlines for print materials. Although scores are considered invalid, districts or schools have been permitted, with MDE approval, to request and pay for special reports.

The scoring system must also allow for corrections to be made to data during/after an appeals/corrections window after the initial district “go-live” date. The appeals/corrections window is handled on a State-owned website, and is not the responsibility of the Contractor. The Contractor must be capable, however, of receiving files of corrections from MDE and updating student data.

## 23. Reporting

The Contractor must perform all constructed-response scoring, which includes open-ended, essay items that require rangefinding, and approximately 1,000 viable papers for pre-training an AI engine to score. For online testing, the Contractor must electronically receive student texts with matched IDs from the Contractor administering the online test to students via an automated transfer process.

### A. Online Assessment Reporting

1. **Online Assessment Reporting**—Since online reporting must be made available either immediately, or shortly after, completion of the scoring for the assessment. The plan is to employ pre-equating (fixed parameter) strategies with Michigan’s IRT scaling for online testing (fixed-form and CAT) in order to produce scale scores, standard errors and performance levels for test-takers at the conclusion of the test session, which is based on the following assumptions:
  - a. Prior to operational testing, all items will have been field tested with samples of adequate size and representation so that the item parameters produced can be assumed valid and applicable to the entire testing population.
  - b. All constructed-response items, such as extended response (essays), performance events, etc., are received electronically from the online testing contractor via an automated transfer process. These texts can be scored via artificial intelligence (AI), allowing for incorporation into the student response string, either during, or at the conclusion of testing. If not, those scores would be added when available. Fixed parameters would be available for these items as well and could be applied.
  - c. In the case of fixed-form tests with pre-equated parameters, raw to scale score tables will be computed prior to the assessment. Those tables can be used to translate raw scores into scale scores.

**Please Note:** *Since the standard setting is planned to follow the first operational administration of the assessment, students and schools will need to wait for the results of the standard setting before their performance level is known. The Online Contractor must provide aggregate and student-level reports online using dynamic displays with customizable, role-based security access permissions.*

2. **Interim Assessment Reporting**—The online reporting must be made available either immediately, or shortly after completion of the scoring for the assessment. At a minimum, the Contractor must provide the following reports:
  - a. **Student performance report** – This report focuses on individual students showing the student’s progress on the Pre- and Post-Test assessments overall as well as for each content standard assessed based on proficiency levels.
  - b. **Class performance report** – This report focuses on a single class or group showing overall performance for the assessment as well as performance for each content standard assessed.



- c. Item analysis report – This report, viewable at all levels (Teacher, School, District, and State), shows item level performance for fixed-form assessments.
  - d. Aggregate performance report – This report is focused on a single school, single district, or the entire State and shows aggregate performance on the overall assessment as well as for each content standard assessed. Report must include aggregates for higher levels – for example, if viewing data for a School, display aggregate information for the State and District.
3. Online Summative Reporting – The online reporting must be made available either immediately, or shortly after the completion of the scoring for the assessment. At a minimum, the Online Contractor must provide the following:
- Student performance for all objective item types (multiple-choice, etc.).
  - Student performance for all constructed-response item types.

**Please note:** For larger projects, such as Smarter Balanced, the projected timeline is 48-72 hrs. For objective items; two weeks for constructed-response items.

## B. State Assessment Reporting

The Contractor is responsible for the State reporting component of this Contract, which includes print, PDF (pre-built), and online (dynamic) reporting.

The intent of this Contract is to 1) continue providing print copies of Parent Reports, Student Labels and the Student Cumulative Folder Label Report, which must be printed centrally and shipped to schools/districts; 2) provide Individual Student Profiles as PDFs on the MDE Secure Site; and 3) to provide a dynamic reporting tool that produces the same data and information available on current school and district aggregate report as well as additional data that many educators may find helpful.

The dynamic reporting tool or system must allow a user (based on role-based permissions) to access one or more web interfaces. To start, the plan is to use the student detail and aggregate data file(s) to provide report layouts and data fields that, when combined in different ways, can replace current school and district aggregated reports with the potential to add more configuration options in subsequent years. User-configurable layout and data contents are not required features during the first year (2013-14) of the Contract, but are desirable components of a proposed solution for the duration of the Contract.

Many Michigan districts have already chosen to receive the “green report option” that provides all aggregate reports as electronic PDFs. The goal is to provide school, district, ISD, and MDE staff with the additional capability to generate all summative and interim assessment reports using an online reporting tool, with local printing capability.

The Contractor must make score report formatting consistent across assessments and report types.

1. The Contractor must deliver all MDE-approved electronic score reports (pre-built and dynamically generated) to schools and districts either on, or before, the MDE pre-specified date.
  - a. Upon UAT completion and MDE approval, the Contractor must generate a snapshot of the test score data.
  - b. The Contractor must use the snapshot of score data to generate the static electronic PDF reports, and make the test results (both static and dynamically generated) available within the online reporting tool.
2. Summative Assessment Reports  
The Contractor must provide individual student and aggregated reports (Summary Reports, Comprehensive Reports, Demographic Reports, and a combination of dynamic displays that meets the requirements for these reports).
  - a. Public Reporting – For aggregate reports that will be made publicly available, cell suppression must be utilized (e.g. no scores reported for any subgroup with less than ten students assessed).
  - b. Secure Reporting – For individual student and aggregate reports that will be made available to school personnel for appropriate use; all aggregate data will be reported (regardless of subgroup population size).
    - 1) Individual Student Reports include the Parent Report, Student labels, and Individual Student Reports. (All are currently available in PDF and print.) The plan is to continue providing the Parent Report and Student labels in both electronic and print formats. The Individual Student Report will be available online as a PDF or dynamic display.



- 2) All other secure reports, such as the Class Roster or Item Analysis Report will be provided online as PDFs or a combination of dynamic displays that meet the requirements for these reports) online with customizable, role-based security access permissions. For example, a school principal will only see individual student data pertaining to that school as well as aggregate data for the State and other schools in the district.
- 3) Student Growth Percentiles
  - a) MDE currently reports student progress on a metric called "Performance Level Change" (or PLC) which tracks students' performance longitudinally using categorical change (or transition tables). This "growth model" as approved by the United States Department of Education (USED) is described in the proposal to USED, found at <http://www2.ed.gov/admins/lead/account/growthmodel/mi/migmp.doc>.
  - b) MDE intends to continue reporting PLCs up to and including the Fall 2013 administration of MEAP and MI-Access. After that, the move to consortium-based assessments is expected to occur at the same time, a transition in the reporting of student progress will also occur. For spring 2015, student growth percentiles (SGPs) will instead be reported. To ease the transition of the field to SGPs, SGPs must also be calculated and reported for the Fall 2013 assessment. A description of SGP methodology can be found at [https://pcsb-pmf.wikispaces.com/file/view/growth\\_percentile\\_primer\\_NCME\\_Apr\\_2011.pdf](https://pcsb-pmf.wikispaces.com/file/view/growth_percentile_primer_NCME_Apr_2011.pdf). For replication and validation, MDE requires that SGPs as calculated for the Contract use open-source software. Open-source (R) software for calculating SGPs can be found in the R package "SGP," created by Damian Betebenner.
  - c) As MDE desires to implement the first operational use of SGPs for the Fall 2013 MEAP, and the timelines for reporting on Fall 2013 MEAP are very tight, the Contractor must demonstrate capability to compute SGPs on a tight timeline very soon after the Contract is awarded by producing those values for the Fall 2012 MEAP, using Fall 2011 MEAP as the conditioning variable, after having gathered requirements from MDE on the conduct of the SGP analysis.
  - d) In addition to computing SGPs for each applicable grade and subject, the Contractor must subcontract with an independent party to independently verify the calculation of SGP (including following all steps as specified in the business rules resulting from requirements gathering). The Contractor must describe the process that will be followed to ensure the independence of the SubContractor.
  - e) SGP results must be included on all reports, either in individual student form or in aggregate form. Requirements gathering for the inclusion of these reports must be carried out very soon after requirements gathering for the performance of the SGP analyses to assure that reporting timelines are not jeopardized by activities necessary to modify report formats for inclusion of SGP results.
  - f) Pricing for this SGP analyses must include, at a minimum, a fixed cost for setting up all equipment and software needed to perform the calculations and unit costs for each analysis.
3. The Contractor and MDE must finalize requirements of the aggregated and student reports that can be met and improved through dynamic display options without having to download a separate file for each report/query. Desired features of this dynamic reporting solution include rollup, drill-down, filter, and sort capabilities. At a minimum, users must be able to select:
  - a. test type, educational entity (School, District, ISD, Statewide where applicable)
  - b. class/group code, subject, grade, and year settings (for aggregates)
  - c. test type, subject, or student (for student-level reports)
4. The Contractor must conduct requirements gathering sessions as needed to define the needs of the online reporting component and the dynamic displays.
5. MDE must provide the Contractor with the data files necessary for generating the assessment reports (i.e., ACT, WorkKeys®, and historical aggregates).
6. In providing systems and services for online administration and reporting, the Contractor is encouraged to utilize technology standards and applications that support interoperability, innovation, and minimal cost of ownership and transfer. Maintaining ownership of administration and reporting components and processes ensures that all processes and presentation of testing results are presented in same manner (consistently) from one administration to another, which is a critical Michigan standard.
7. The Contractor must host the electronic reports until MDE determines that no changes will be made. Upon MDE approval, the Parent Report, Student Labels report, and Student Cumulative Folder Label Report will be printed and mailed.
8. The Contractor must retain assessment report data (raw and computed) for the duration of the Contract.
9. The Contractor must provide, by a mutually agreed-upon date, a user's guide for the creation of electronic reports and use of queries to generate assessment score reports.



10. The Contractor must describe how the proposed reporting solution will scale to perform well given the amount of data anticipated.
11. Quality Assurance Plan
  - a. Requirements Gathering
    - 1) The Contractor must schedule and participate in sessions with appropriate MDE staff to establish guidelines for data interfaces and format needs as part of updating requirements for digital reporting (PDFs and print documents), which includes ISRs, Parent Reports, student labels and static PDF of demographic and comprehensive reports of school, district and State results.
    - 2) The Contractor must schedule and participate in gathering requirements for a flexible online reporting tool to replace school and district summary reports. This currently includes class roster, item analysis, and summary report.
  - b. UAT Plan
    - 1) The Contractor and MDE will use MDE-approved requirements for the Mock Reporting and Production Reporting UATs for digital reporting.
    - 2) The Contractor and MDE must use MDE-approved requirements for the Mock Reporting and Production Reporting UATs for the flexible online reporting tool to replace school and district summary reports.
  - c. Mock Reporting UAT
    - 1) The Contractor must develop a mock score file based on requirements from MDE and use it to generate individual student reports to be used for UATs of the reporting process. The mock score file must represent all the possible combinations of scoring/reporting conditions (different demographic groups, different standard and nonstandard accommodations, misadministration, private school students, home-schooled students, prohibited behavior, etc.)
    - 2) The Contractor must develop the mock student information (names, UICs, demographic information, etc.) needed for the mock score file as well as the necessary range of scoring conditions.
    - 3) The mock score file must be created in such a way that it can be re-used for UAT of different test administrations.
    - 4) The Contractor must collaborate with MDE to ensure that all the UAT conditions for reporting are met.
    - 5) The Contractor must use the mock score file to generate individual student reports (Student Record Labels, Individual Student Reports, and Parent Reports) and aggregate reports (Student Roster Reports, Item Analysis Reports, Summary Reports, Comprehensive Reports, and Demographic Reports) for public, private, and charter schools, and home-schooled students. Please note: Home-schooled students do not receive aggregate reports or a student record label, nor do they appear on public school aggregate reports. The Parent Report and Individual Student Reports must be packaged separately for each home-schooled student and marked for delivery to the school where the student tested.
    - 6) The Contractor must print the PDF score reports organized by report type, school, and district for use by MDE in the validation of the accuracy of score reporting.
    - 7) The Contractor must provide all supporting documents needed for MDE to review and approve the mock score reports, such as copies of all requirements documents, a description of the reporting data elements by report for use as a reviewer checklist, and a sign-off sheet for tracking review of each report type and notation(s) of any errors/problems found.
    - 8) The Contractor must attend the mock reporting UAT, answer any questions raised and make immediate corrections that are needed to the reports. The Contractor must note any future changes to reports discussed by MDE.
    - 9) The Contractor must provide copies of corrected reports onsite for MDE approval. Report correction and review will continue until MDE signs off on all reports.
  - d. Production Reporting UAT
    - 1) The Contractor and MDE must collaborate to determine one or more representative districts and/or schools to be used for the production UAT process which are diverse enough to represent conditions that will be tested, but small enough that they can be printed and reviewed in a reasonable time.
    - 2) The Contractor must generate the report files to be used to print individual-level reports (Student Record Labels, Individual Student Reports, and Parent Reports) and aggregate score reports (Student Roster Reports, Item Analysis Reports, Summary Reports, Comprehensive Reports, and Demographic Reports).
    - 3) The Contractor must print and package a sample set of PDF score reports for use by MDE to determine the accuracy of the score reports and the order in which they are packaged for shipping to schools.



- 4) The Contractor must immediately correct any errors found by MDE in the reports as well as any errors in the order in which the reports are packaged. Once all corrections are made, MDE will sign off.
- 5) The Contractor will receive from MDE a final file containing the career and technical education (CTE) Centers and the students tested there (MME only). The Contractor will use this information to generate PDFs of the CTE report forms for MDE review and approval. This activity follows the completion of the UAT.



Table 2. **STATE REPORT DESCRIPTORS**

PDF = Pre-generated reports that are print-ready

Dynamic = Dynamically-generated reports using the Online Reporting tool

Report	Description	Population	Distribution	Format
<b>Parent Report *</b>	Summarizes individual student achievement in each content area, including earned points and points possible, percent correct, and performance level change information (if applicable).	All students	1 copy to school to be distributed to student's Parents/Guardian	Print and PDF
<b>Student Labels *</b>	Summarizes individual student achievement in each content area.	All students	School	Print and PDF
<b>Individual Student Report (ISR) *</b>	Separated by content area, the ISR provides detailed information on individual student achievement, including scale score, performance level, earned points and points possible. Sorted by class/group code (if provided), and student name.	All students	School	PDF and Dynamic
<b>Class Roster *</b>	Separated by content area, the roster provides detailed information on student achievement, including scale score, performance level, earned points and points possible. Scored by class/group code (if provided), and student name.	All students	Class/Group, School	Dynamic
<b>Item Analysis Report</b>	Separated by content area, the item analysis provides the primary content expectation measured by each test item, a brief description of the content expectation, the item descriptor number, and the individual item statistics, including the percentage of students selecting each response.	All students, Students w/Disabilities, ALL except Students w/Disabilities	Class/Group, School, District, State	Dynamic
<b>Summary Report</b>	Summarizes student achievement for all content areas, including mean scale score and performance level information, as well as year-to-year transitions. The School Summary also provides student score distributions for each content area.	All students, Students w/Disabilities, ALL except Students w/Disabilities	School, District, ISD, State	Dynamic
<b>Demographic Report</b>	Summarizes the total number of students assessed, mean scale score, and performance level information for each demographic subgroup containing at least 10 students.	All students, Students w/Disabilities, ALL except Students w/Disabilities	School, District, ISD, State	Dynamic
<b>Comprehensive Report</b>	Summarizes the total number of students assessed, mean scale score, and performance level information for the district or ISD. The district report provides a summary for the district and each school within the district. The ISD report provides a summary for the ISD, followed by each public school district, and then each Public School Academy (PSA) within the ISD.	All students	District, ISD	Dynamic

\*Reports will include up to two years of assessment data depending on the assessment.



### C. Independent Psychometric Quality Assurance Review

The Contractor must obtain services from an independent psychometric firm to verify and validate the operational work of MDE's Measurement Research & Psychometrics staff.

1. Qualification, Independence and Experience of Psychometric Firm and Verifier(s)
  - a. The psychometric work must be verified by adequately qualified psychometricians who are removed from print and online scoring processes.
  - b. The work must be performed *independently* of the Contractor to ensure that procedures are free from potential bias or collusion.
  - c. Independent verifier(s) must provide complete, transparent, and open opinions of results and help advise MDE staff, as needed; final decisions are made by MDE, the ultimate authority.
  - d. The psychometric firm must have demonstrated experience in large-scale K–12 assessment with clients at least as large in sample size as Michigan.
  - e. Verification experience must include analyses utilizing Item Response Theory (IRT) equating, scaling, and item analysis with experience implementing all commonly used models of configuration (e.g. Rasch, 2PL, 3PL, GLPC, etc.).
  - f. The psychometric firm must have experience in coordinating similar work with various contractors, requiring extensive planning and coordination of schedules.
2. Minimum Requirements for Work Deliverables
  - a. Verification Scaling and Equating analysis, which must be performed independent of MDE's work but within the same prescribed timelines to ensure timely reporting. (Interface E – **Diagram 1.1**)
    - 1) For all items during the first large-scale field test: All items will need to be calibrated to the specified model to set the initial scale (Note: existing instruments will be linked using previously administered items via a fixed parameter scaling approach)
    - 2) For all field test items following the initial scaling: Up to 15% of the items on any given test will be field test items and they will need to be placed on the same scale as the current operational items. As the operational items' parameters are fixed for the purpose of obtaining item parameter estimates for field test items, an equating study to ensure the viability of the fixed items as anchors for the field test item scaling will be necessary.
  - b. All work must be completed in an accurate and timely fashion so that overall project schedules can be met, which requires:
    - 1) Quality control work that is extensive and accurate
    - 2) Working closely with MDE in planning for transfer of data and analysis results
  - c. Replication Analysis
    - 1) Compilation of two sets of results (based on major portions of analysis) into a comparison spreadsheet.
    - 2) Examination of results by the verification firm and MDE to determine if replication was successful.
    - 3) If discrepancies are found, communication (email or conference call) must be initiated to determine root cause.
3. Major Analyses for a Typical Project
  - a. Analysis Set 1—Pre-Equating Scaling, using test map spreadsheets, detailing test forms, item scoring, form composition, and organization.
  - b. Analysis Set 2—Post-Equating Scaling
  - c. Analysis Set 3—Field-Test Item Analysis

## 24. Printing, Packaging, and Distribution of Score Reports

### A. School and District Level Reporting: Current procedures

1. When MDE has signed off on the UAT, the Contractor must begin the printing, packaging, and distribution of score reports.
2. Districts are given the option to receive all aggregate reports electronically and receive paper copies of only the ISR, PR, and Student Labels. The Contractor should be aware that in the future MDE intends to have all reports provided in electronic form except for the Parent Report.
3. The Contractor must package score reports for distribution to schools and districts.
4. The Contractor must distribute the score reports to schools and districts to arrive by a date specified by MDE.
5. The Contractor must host the score report PDFs until MDE determines that no changes will be made. The Contractor must provide final electronic PDF reports to MDE.
6. The Contractor must package the MME CTE score reports by CTE Center and distribute to the Centers to arrive by a date specified by MDE.
7. The Contractor must provide electronic copies of sanitized samples of all reports to MDE for use in a guide to reports by a mutually agreed-upon date.



8. The Contractor must receive payment from schools for No Bar Code bills and late return of materials, notify MDE of payment, and make a second distribution of reports for these schools.
9. The Contractor must print and ship corrected score reports when errors are identified by a date specified.
10. MDE must determine when the use of the Emergency form requires collection of a fee; the Contractor will send letters and invoices to these schools.
11. The Contractor must be responsible for printing and mailing of hard-copy Parent Reports and Student Labels to schools and districts as indicated in the MDE Secure Site.

## 25. Document Retention and Storage

The Contractor must work with MDE to update retention requirements for all print and electronic documents. MDE must have access to all stored documents and files at any point during the Contract or within MDE-approved retention guidelines.

### A. Physical Materials

1. The Contractor must retain a cycle's used and unused secure physical materials for two full years.
2. The Contractor must retain scanned documents until written permission is received by the MDE Director to recycle, using secure procedures to protect FERPA-related student information.
3. Meeting documents, such as sign-in sheets

### B. Electronic Files, etc.

1. Scanned Images
2. Scanned, scored files
3. Import, export files
4. All student testing data in a highly secure location with off-site backup for the life of the Contract.
5. Full archives of student testing data must be made available to MDE via an open published API.
6. No student testing data will be deleted without written permission from the MDE Director.

## 26. Technical Report

MDE requires the annual production of a technical report that documents the development and psychometric characteristics for each of the Michigan assessments. Those reports must be comprehensive, providing reviewers with all the information necessary to evaluate the technical merits of the Michigan assessments and clearly written so that the report is readily accessible to reviewers at the U.S. Department of Education, other oversight bodies, and Michigan stakeholders.

Following each test administration cycle, MDE will produce for each assessment program a draft operational technical report documenting all phases of the test development, scoring, and reporting process and providing evidence for the reliability and validity of the assessments, as well as providing all of the supporting analysis results as appendices. The Contractor will provide to the MDE all data used to produce the technical reports, including all data from the handscoring of CR items as required in the Contract.

MDE will provide the Contractor with completed sections and related tables for the Technical Reports from covering aspects of administration, scoring and reporting processes that are included in this Contract. The Contractor understands, and confirms, that the MDE expectation is a report that adheres to the requirements set forth in section 22 and as provided in the examples located at: [http://www.michigan.gov/mde/0,1607,7-140-22709\\_35150-172665--,00.html](http://www.michigan.gov/mde/0,1607,7-140-22709_35150-172665--,00.html). The Contractor will work with MDE to schedule needs analysis meetings for the purposes of determining the appropriate format and contents of the technical report.

- A. The Contractor must provide all assessment data to include handscoring for each respective program's Technical Report.
- B. The Contractor must provide input and review for Technical Reports that are initially drafted by MDE staff.

## 27. Functional and System Requirements/Deliverables — Online Test Delivery System

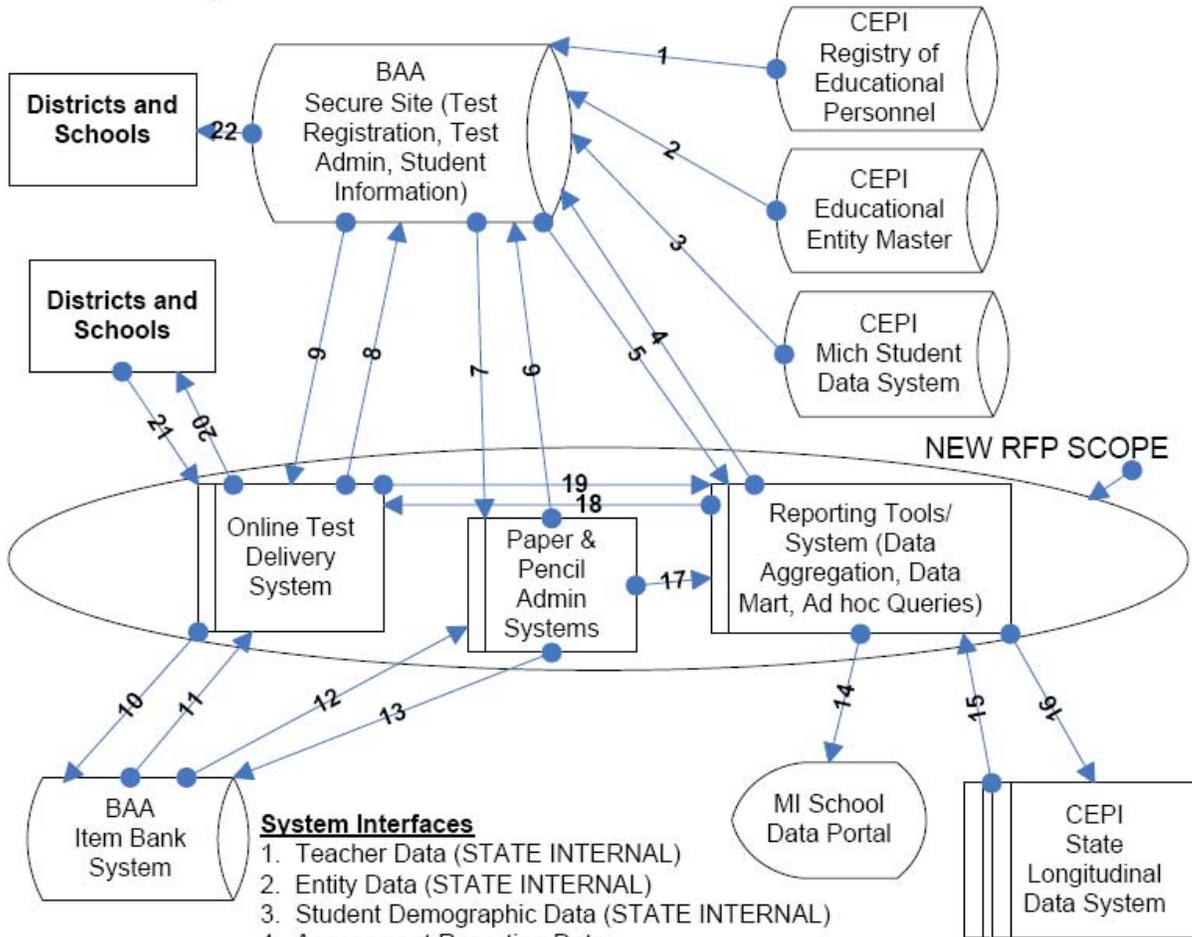
- A. System Interfaces - All Contractor system to State system interfaces utilize web services, XML data exchange, and/or direct (supporting Microsoft SQL Server 2008 and above) table to table reads/writes via VPN connection.

Security and authentication software for the MDE Item Bank is currently Tivoli. The MDE Secure Site is a State-created and maintained solution called MEIS. Please note: The description of the MDE technical systems and software, formerly referred to as Bureau of Assessment and Accountability (BAA) systems, is included in the following section.



Diagram 1.2

### BAA System Interfaces



**System Interfaces**

1. Teacher Data (STATE INTERNAL)
2. Entity Data (STATE INTERNAL)
3. Student Demographic Data (STATE INTERNAL)
4. Assessment Reporting Data
5. Student/Teacher/Class Group Data and data requests
6. Tested Roster/Answer Doc Images/Material Order/Shipping Data
7. Student Pre-id/Material Order/Roster Entity Data
8. Student Testing status Data
9. Student/Roster/Test Info/Entity Data
10. Item usage statistics
11. Items/Test Maps Data
12. Items/Test Maps Data
13. Item usage statistics
14. Aggregated Results
15. Historical Student Results
16. Student and Aggregated Results
17. Student Answers and Results
18. Historical Student Results
19. Student Answers and Results
20. Online test items
21. Student Responses
22. Report data

- Future Interfaces – Separate RFPs
- Dynamic Learning Maps (MI-Access)
  - WIDA (ELPA)
  - Smarter Balanced Item Bank
  - Smarter Balanced Reporting System
  - Kindergarten Readiness Assessment
  - Tunnel to/from Student Information Systems



## Diagram 1.2 – Description of the System Interfaces

1. Teacher Data (STATE INTERNAL)
  - a. Teacher data from the Registry of Educational Personnel (REP) are accessed for assessment purposes in the MDE Secure Site.
2. Entity Data (STATE INTERNAL)
  - a. Entity (School, District, and Intermediate School District (ISD) data from the Educational Entity Master (EEM) are accessed for assessment purposes in the BAA Secure Site.
3. Student Demographic Data (STATE INTERNAL)
  - a. Student demographic data from the Michigan Student Data System (MSDS) are accessed for assessment purposes in the MDE Secure Site.
4. Assessment Reporting Data
  - a. Reporting data are accessed by the BAA Secure Site in the Reporting System via a direct table read. The reporting system will support both static report displays and dynamic customized reports based on data-mining tools. Summative and interim assessment interpretive guides, graphic displays of data, and text will focus on the particular needs of students, parents, teachers, and school and district administrators. They will be tailored to each major user group and allow for varying degrees of customization, depending on the needs of the particular user group. Access to student data and reporting tools will be credential-dependent to ensure student privacy and protect the security of individual student results. The results will be of immediate value to students, parents, teachers, and school and district administrators. Through credential-based access to the reporting suite, stakeholders can view and generate meaningful interim assessment reports appropriate to their level of access.
5. Student/Teacher/Class Group Data
  - a. Teacher and student roster data will also be accessed by the reporting system from the BAA Secure Site for reporting purposes.
  - b. Data requests for ad hoc queries will be submitted through the BAA Secure Site to the reporting system.
6. Tested Roster/Material Order/Shipping Data
  - a. Contractor sends back packing list, shipment information and a link to the shipment-tracking website.
  - b. Tested Roster overview: Tested Roster Processing is the method by which schools view scanned data from student answer documents and verify the demographic information. The data sent to the MDE Tested Roster process by the assessment contractor do not include answer documents returned with non-scorable materials (such as secure but unused answer documents that are required to be returned, scanned, and accounted for but are not processed further). If a school finds any issue with the posted data, it alerts MDE, which in turn works with the assessment contractor to correct the data. Tested Roster Processing includes the following processes:
    - 1) **No Bar Code processing:** The answer documents that were scanned with no bar code or invalid bar codes go through No Bar Code processing. If a bar code for the document can be located or created by BAA, the document is sent for No Bar Code processing. If the document cannot be assigned a bar code due to insufficient data, it is not included in further processing.
    - 2) **Duplicate Bar Code processing:** Answer documents with duplicate bar codes can exist for the same student or for different students. The assessment contractor attempts to resolve as many duplicate bar codes as possible before sending any to MDE.
    - 3) **Out of Level processing:** A student may be administered a test in a grade level that does not match his enrolled grade. The student's documents are sent to the Tested Roster process and a new barcode may be assigned.
    - 4) **Tested Roster processing.** All answer documents that are valid for Tested Roster, including those that received a valid bar code as the result of bar code processing, are included in the Tested Roster processing. A valid answer document has at least one multiple-choice item bubbled or one constructed response in the answer document. A blank document is not sent to the bar code or Tested Roster processes. An answer document with no apparent bubbled responses to test questions, returned with scorable materials, is sent to data correction to confirm that all positions for bubbled and written answers are blank. The presence of demographic data, including a student bar code, has no bearing on this determination. Upon such confirmation, this document is marked as blank and is not processed further, including the processes in this document.



c. Barcode handling process:

Scenario	Handling Instructions
No barcode - no required values	Barcode cannot be assigned by BAA due to insufficient data. The document is not sent and not processed further.
No barcode - partial required values	<p>If the district-school code combination cannot be resolved, the record is not sent and the document is not processed further.</p> <p>If the district code and school code exist, but the grade, last name, first name, or birth date are missing, the record is sent but BAA may not be able to assign a barcode.</p> <p>If BAA cannot locate or create a barcode, the document remains as is until the school calls about it. The document is not processed further until it gets a valid barcode.</p> <p>If successful, the new barcode is retrieved and assigned to the answer document.</p>
No barcode - all required values	<p>The record is sent (including birth date if valid) and BAA attempts to locate or create a barcode.</p> <p>If this cannot be done, the document is not processed further.</p> <p>If successful, the new barcode is retrieved and assigned to the answer document.</p>
Invalid barcode - partial required values	<p>If the district-school code combination cannot be resolved, the record is not sent and the document is not processed further.</p> <p>If the district code and school code exist, but the grade, last name, first name, or birth date are missing, the record is sent but BAA may not be able to assign a barcode.</p> <p>If BAA cannot locate or create a barcode, the document must be reviewed and the school must be contacted to obtain more information about the document. The document is not processed further until it gets a valid barcode.</p> <p>If successful, the new barcode is retrieved and assigned to the answer document.</p>
Invalid barcode - all required values	<p>The record is sent (including birth date if valid) and BAA attempts to locate or create a barcode.</p> <p>If this cannot be done, the document is not processed further.</p> <p>If successful, the new barcode is retrieved and assigned to the answer document.</p>

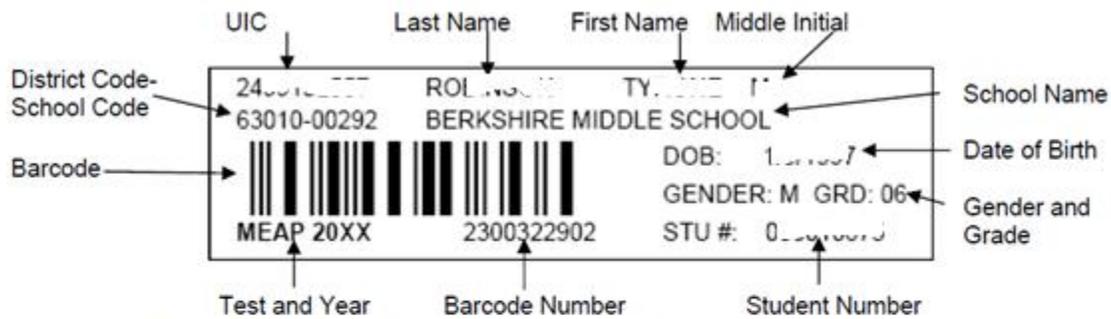
- d. Tested Roster Issues: As the districts identify issues with scanned data, these issues are recorded and reviewed by the MDE business office. The following issues can be created by the Districts/Schools.
- 1) **Combine:** If a District/School determines that there are student tests on their roster that should be combined to one student, they submit a combine issue. The District/School chooses one of the student test records to be the Primary Test Record and the records they choose to be combined update the primary test record chosen. If the combine is accepted by MDE, the records are combined on the BAA system. The primary record is updated with the test information from the other records and the other records are unassigned from the test cycle. Tests of the same subject cannot be combined. Tests of different grades cannot be combined.
  - 2) **Missing Test:** If a District/School determines that there are student test records on their roster that are missing for a student, they submit a missing test issue for the content area that is missing. If a missing test issue is approved by MDE, the Contractor pulls the missing test information from the BAA system. If the Contractor finds the test for the student, and if the document qualifies for Tested Roster processing, the data from the scanned document are loaded to the BAA database. The issue created for the missing test is flagged as resolved whenever the data for the test are processed by MDE. If the Contractor finds the missing test and it is blank, MDE is notified. MDE marks the ticket as resolved with a comment that the test found was a blank. MDE updates student test records when appropriate.



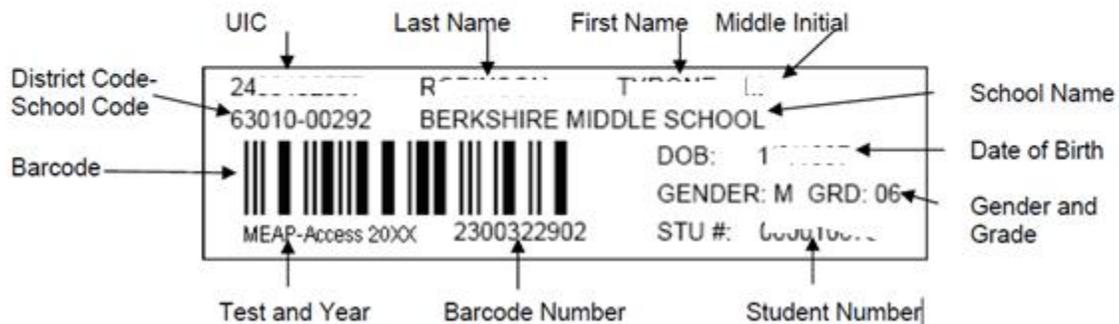
- 3) **Missing Student:** If a District/School determines that there are students who are missing on their roster, they submit a missing student issue for the student who is missing. If a missing student issue is approved by MDE, the contractor pulls the missing student information from the BAA system. If the contractor finds the tests for the student, and if the documents qualify for Tested Roster processing, the data from the scanned documents are loaded to the BAA database. The issue created for the missing student is flagged as resolved whenever the data for the student is processed by MDE. If the contractor finds all the tests for the missing student and they are all blank, MDE is notified. MDE marks the ticket as resolved. MDE updates student test records when appropriate.
  - 4) **Move:** If a District/School determines that there are students who are no longer in their district or school, they submit a move issue. If a move request is entered by the District/School and approved by MDE to a school within the requesting District, the test is moved to the new school. If a move request is entered by the District/School to move a student out of the district and it is approved by MDE, the student is moved out of the District and MDE will assign it to the correct school.
7. Student Pre-ID/Material Order/Roster Entity Data
- a. The Contractor must be able to pull pre-ID data from the BAA system multiple times. For example, Pre-ID overprinting on answer documents, label printing by the Contractor and later pulls. **Student Pre-ID overview:** Pre-ID labels are sprayed on answer documents or attached to answer documents by school personnel to correctly identify a student and to associate the student's demographic information with his or her answer folder. Student demographic data used to create Pre-ID labels is provided by MDE. In grade 3 for both MEAP and MEAP-Access, two labels are printed for Reading because there are separate test booklets for session 1 and session 2. Note that if a student is not pre-identified for a subject, a label is not printed for that subject for that student even if the student is pre-identified for other subjects. Also, a label is not printed for a student when a student is incorrectly pre-identified for a subject when that subject is invalid for a grade. Pre-ID labels are printed on two different dates. For MEAP the Pre-ID labels from the initial printing are sent to the printer of the initial test materials and sprayed directly on the answer document (or test booklet/answer document for grade 3). For MEAP-Access the pre-ID labels from the initial printing are printed on Avery 5161 (or comparable) continuous form 1" x 4" labels (20 per page). Any new or changed student demographic data are captured during a second pre-ID label process, and are printed and shipped separately from test materials. School personnel will separate the labels by grade, subject, and class for use during testing. Labels for students who register late and whose demographic information is not contained in the two previous pre-ID label shipments are printed locally in the schools. The student demographic data are obtained via the BAA secure website.
  - b. Pre-ID label format:



An example of a MEAP PreID label and a key to the fields is shown below:



An example of a MEAP-Access PreID label and a key to the fields is shown below:



- c. Barcode specifications: Barcodes are printed as machine-scannable Interleaved 2 of 5 (I2of5) or Free 3 of 9 Extended Regular (Fre3of9x) barcode numbers and also as 10-digit human-readable barcode text in 8.5 point Arial font. The barcodes are approximately 1 5/8" wide and 3/8" high. The student barcode supplied by MDE is 10 digits in length and includes a check digit that is calculated by MDE.
- d. The Contractor needs to pull the initial order information (a one-time pull) with shipping information for schools and districts and additional order information (on a daily basis for a period of time).
- 8. Student Testing Status Data  
Data related to student's online testing status are accessed by the BAA Secure Site.
- 9. Student Pre-ID/Roster/Test Info/Entity Data
  - a. For the online test delivery system, the Contractor must be able to pull pre-ID data at the beginning of the test period and at a minimum on a daily basis throughout the test period.
  - b. The Contractor must use the State's UIC and a barcode generated from the State's Secure Site System in the online test delivery system.
  - c. The Contractor must utilize the grouping of students by the roster data retrieved from the BAA Secure Site, allowing test proctoring in these groups via the online test delivery system. This grouping is optionally entered in the BAA Secure Site by districts and schools.
- 10. Item Usage Statistics (Online)  
Item usage statistics data are accessed by the BAA Item Bank System from the Online Test Delivery System.
- 11. Items/Test Maps Data (Online)  
Item and test map data are exchanged from the BAA Item Bank System to the Online Test Delivery System.
- 12. Items/Test Maps Data (Print)  
Print Optimized Files (POFs) and Test map data are made available to the Contractor for the paper-and-pencil administration from the BAA Item Bank System.
- 13. Item Usage Statistics (Print)  
Item usage statistics data are accessed by the BAA Item Bank System from the Online Test Delivery System.
- 14. Aggregated Results  
Assessment results aggregated for public reporting are made available via an extraction/transform/load process to the MI School Data Web Portal.
- 15. Historical Student Results  
Longitudinally connected student assessment data are made available for queries from the BAA Secure Site.



16. Student and Aggregated Results  
Student-level and aggregated assessment data are made available via an extraction/transform/load process to the State Longitudinal Data System (SLDS).
17. Student Answers and Results (Print)  
Student responses via scanned paper answer documents are sent to the reporting system.
18. Historical Student Results  
Longitudinally connected student assessment data are made available for queries from the Online Test Delivery System.
19. Student Answers and Results (Online)  
Student responses via the Online Test Delivery System are sent to the reporting system.
20. Online test items  
Schools and districts utilize the Online Test Delivery System to administer tests to students.
21. Student Responses (Online)  
Student responses via the Online Test Delivery System are entered for scoring and reporting.
22. Report data  
Student-level and school and district aggregated results are available via the BAA Secure Site for teachers and administrators appropriate to their level of access.

## B. Technical Priorities

1. Overview of Key Technical Priorities
  - a. Highly Available and Scalable System. The Online Test Delivery System will support high availability and scalability and perform under periods of high usage and high processing loads.
  - b. System and Data Recoverability. The Online Test Delivery System will need the ability to recover from a hardware or application failure. It will have built-in redundancy and fail-over architecture to ensure seamless system recovery.
  - c. Data Integrity. The Online Test Delivery System will provide end-to-end data protections to ensure no data are lost or corrupted during processing, storage, and transportation between applications and interfaces.
  - d. Security. The Online Test Delivery System will maintain the highest level of security in order to safeguard the confidentiality of items, student information, and assessment results. The required security level is comparable to that required by financial institutions to prevent security breaches.
  - e. System Flexibility. The Online Test Delivery System will be interfacing with several existing systems within MDE and CEPI. The system will be built with enough flexibility so that it has the capability to interface with other systems in the future. The effective use of standards, business rules, security protocols, and integration architectures will be critical to enabling this level of interoperability.
  - f. Data Management. The Reporting System will support the seamless and secure sharing of student item data and test results. This includes both the receipt of student data from the State systems and the export of student results back to the State systems.
  - g. Accessibility. The Online Test Delivery System will be in compliance with Section 508; Americans with Disabilities Act (ADA) and ideally with the Web Content Accessibility Guidelines 2.0. The substantive content (e.g., items) will be associated with metadata that describe any changes that will be made to the content, display, or input method necessary to provide appropriate accommodations support to the student. In addition, the overall approach will leverage the use of computer-based accessibility tools.

### 1.024 Conducting Meetings

Throughout the term of the Contract, there will be many meetings pertaining to the tasks covered by this Contract. The Project Coordination Contractor will be responsible for selection of location, arrangements, and compensation for all of the meetings included in this Contract that are related specifically to the Contractor's deliverables, or involve multiple Contractors. Other Contractors and/or Subcontractors in attendance will be responsible for their own staff's travel, lodging and meals.

There are basic and specific meeting responsibilities. The basic meeting responsibilities are required of the Contractor for all meetings identified in this Contract. Requirements gathering and UATs are examples of basic meetings. *Failure by the Contractor(s) to provide any of the responsibilities listed in this section may result in non-payment of all costs related to the respective meeting(s) and require the Contractor to arrange and pay for a replacement meeting.*



## **A. Basic Meeting Responsibilities of the Contractor**

1. In consultation with MDE, identify meeting titles, dates, and attendees.
2. Locate, reserve, and pay for a facility on the date(s) identified. The facility will have:
  - a. Seating capacity for the expected attendees
  - b. A large display screen that can easily be seen by all attendees
  - c. ADA compliance
  - d. Unless specifically indicated to the contrary, all meetings will be held in Lansing, Michigan.
3. Arrange and pay for overnight accommodations if requested, for multi-day meetings for any attendee traveling more than 50 one way miles to the meeting.
4. Arrange and pay for overnight accommodations for the night before, the night(s) during, and the night following any meeting for any attendee traveling more than 150 miles to the meeting.
5. Provide transportation for any attendee traveling out of the State.
6. Must have written approval from MDE's director before transportation arrangements are made.
7. Provide refreshments (water, coffee, tea, juice, soft drinks, and healthy snacks) for all attendees.
8. Provide healthy lunches to all attendees for meetings lasting more than four (4) hours and beginning at or before 12 noon local time.
9. Prepare an agenda for the meeting.
10. Send out and track invitations to each meeting.
  - a. Send copies of agenda with invitations.
  - b. Provide copies of notes from previous meetings.
11. Set up and provide a sign-in sheet with the title and date of each meeting.
  - a. Ensure that all attendees sign in, including Contractor's staff, MDE staff, and committee members.
  - b. Set up a separate sign-in sheet for each date of a multi-day meeting. For example, if one meeting lasts two days then there will be a separate sign-in sheet for each day.
  - c. The original sign-in sheets will be given to MDE within five (5) business days following the meeting.
  - d. The Contractor must retain a copy of the sign-in sheets for up to two (2) years following the end of the term of the Contract.
12. Prepare and maintain accurate minutes of each meeting. The Contractor must include an example of the minute's structure that will be used by staff with their proposal.
  - a. Send MDE a copy of the minutes within three (3) business days following the meeting.
  - b. Publish final minutes and any stakeholder comments to a password-protected shared data source.

## **B. Responsibilities of the Contractor for Specific Meetings**

1. Management Meetings
  - a. At least four members of MDE staff must meet at least monthly with at least four of the Contractor's key staff to review completed, current and future tasks and their timelines.
    - 1) During the first year of the Contract, or during peak times, these meetings may be held weekly.
    - 2) The Contractor Leads for key tasks must attend these meetings unless otherwise indicated in writing by MDE.
    - 3) MDE reserves the right to require other Contractor staff that is key for specific activities to attend one or more of these meetings. MDE must provide written notification (to the Contractor's Project Manager) requiring the attendance of any such individual in reasonable time for the request to be accommodated.
  - b. Four management meetings, one every three months, will be in-person meetings, which can rotate between MDE's office in Lansing, MI, and the Contractor's primary facility. These meetings are not the same as the Executive Management Meetings.
  - c. Web conferencing or teleconferencing can also be used.
  - d. The MDE Contract Change Request Control Statement must be read at the beginning and at the conclusion of all management meetings.
2. Executive Management Meetings
  - a. At least three of each of MDE's and the Contractor's senior officers will meet at least twice a year to review overall Contract performance.
    - 1) These are high-level meetings to review project goals, assess foreseeable risks, address major issues, and discuss financial matters.
    - 2) The frequency of these meetings may be increased at the discretion of MDE's Director.
  - b. These are all in-person meetings.
  - c. The meetings will be held in rotation between the Contractor's primary facility and MDE's office in Lansing, MI.
  - d. The first meeting must be held within 60 calendar days of Contract award.



- e. The MDE Contract Change Request Control Statement must be read at the beginning and at the conclusion of all executive management meetings.
3. Constructed-Response Score Training and Review Meetings—Rangefinding Committees
  - a. The rangefinding committees for the assessment and content area (i.e., mathematics, science, reading/language arts, and social studies) and each prompt will be comprised of MDE staff, Contractor staff, and eight-to-ten Michigan teachers at the grade level of the students to be assessed.
  - b. The rangefinding committees will meet for not longer than three days. The Contractor must recruit and train active Michigan teachers from the content area and grade level tested to establish, via rangefinding, the scoring rubrics for constructed-response items on an assessment.
4. Technical Advisory Committee (TAC) Meetings
 

The TAC is a panel of nationally recognized assessment experts who provide advice to MDE on complex assessment-related issues. The TAC meetings are conducted and coordinated by MDE. They are typically convened four times per year and last up to two days each. Since most of the meetings tend to address assessment administration topics, by invitation, MDE may request the presence of two representatives from the Contractor's staff. Therefore, for budget purposes the Contractor should plan to send two staff four times per year, payable only in cases in which the staff is in attendance.
5. The Contractor's response to Basic Meeting Responsibilities is provided below.

### **1.025 Program Development/Assistance**

There are many stakeholders involved with various facets of implementing programs described within this Contract. At times, there are requests for research, training or special reporting related to Federal or State mandates. Together with its Contractors, MDE expects to be able to handle most of these requests.

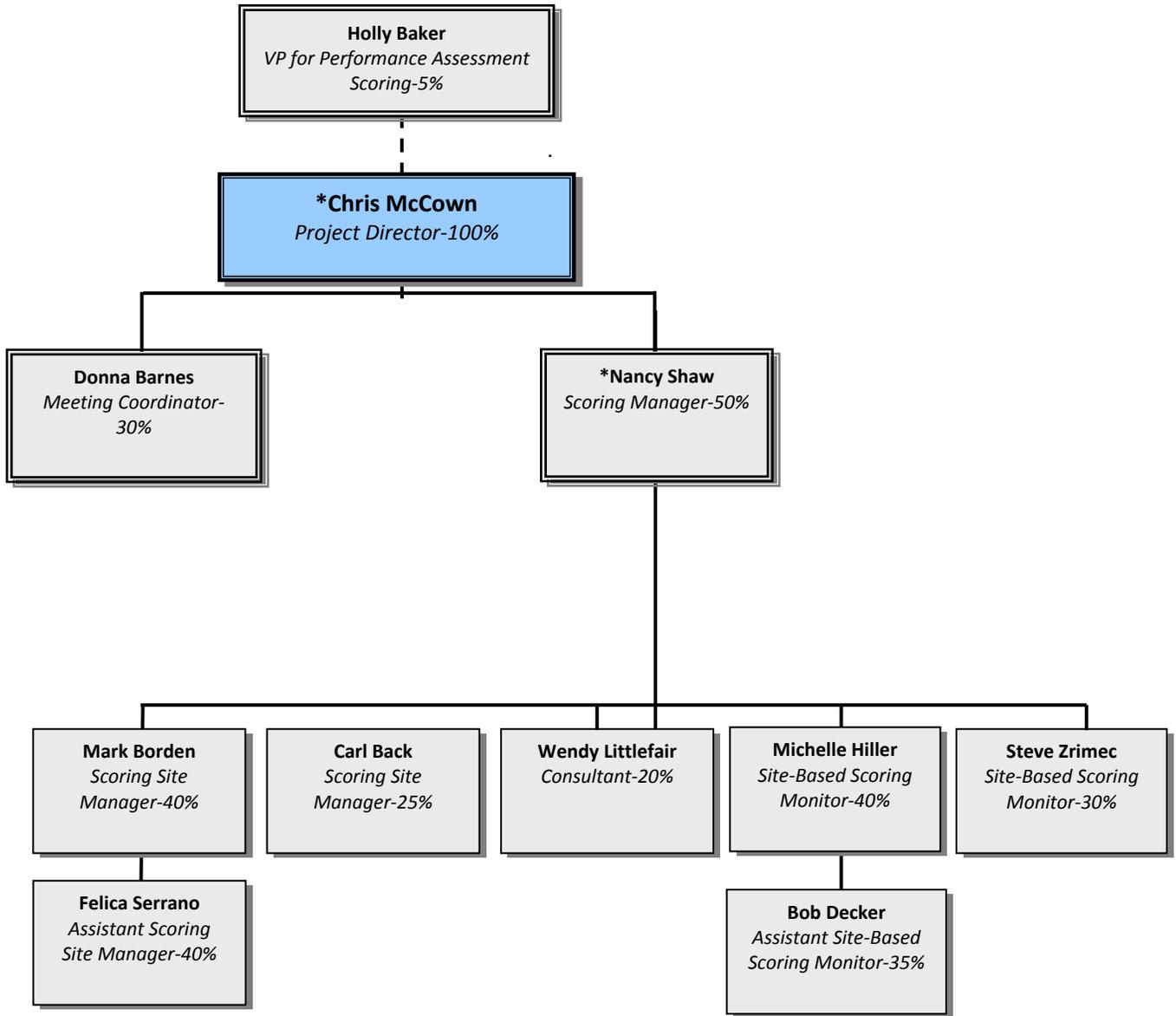
In addition, staff may need to attend specific training sessions to maintain their expertise in the programs identified in this Statement of Work. Staff may also be required to provide training to large groups of stakeholders regarding one or more of the administration and reporting activities.

Upon written approval of the MDE Director, the Contractor must contract with and compensate individuals and organizations selected by the MDE Director to cover the aforementioned needs within this section. Line items are included in the price sheet related to this section.

### **1.030 Roles and Responsibilities**

#### **1.031 Contractor Staff, Roles, and Responsibilities**

The Contractor and its Subcontractors must provide and update staffing organization chart and the percent effort values for each staff that will be needed to fulfill the tasks and activities as stated in the Contract. All key staff for this Contract are identified with an asterisk (\*).





## 1.040 Project Plan

### 1.041 Project Plan Management

#### A. Preliminary Project Plan

The activities addressed in this Contract require the Contractor to provide the overall plan for developing and implementing high-quality administration, scoring, and reporting deliverables for MDE assessment programs. The Contract must provide overall project coordination for all Contractors included in this Contract and (in this role) is referred to as the Project Coordination Contractor. The Contractor's plan must articulate the activities and work deliverables with the staffing identified in Section 1.031 and include necessary timeframes and deliverables for the various stages of the Contract specifying the responsibilities and obligations of each Contractor and the State.

1. The Preliminary Project Plan must also include the following:
  - a. MS Project schedule
    - Internal milestones
    - Task durations
    - Deliverable target dates and critical paths
  - b. Project approach / Statement of Work
    - Scope Statement with a description of the deliverables to be provided under this Contract
  - c. Assumptions and exclusions
  - d. Critical success factors
  - e. Initial resource plan with anticipated resources by organization, role, and responsibility
  - f. Initial risk plan
  - g. Initial communication plan
  - h. Anticipated hardware, materials, and supplies to be provided by the State in meeting the target dates established in the Preliminary Project Plan
2. The Preliminary Project Plan must include the following milestones with anticipated subtasks:
  - a. Phase 0 – Pre-Project Initiation
  - b. Phase 1 – Initiation and Planning
  - c. Phase 2 – Requirements Definition
  - d. Phase 3 – Functional Design
  - e. Phase 4 – System Design
  - f. Phase 5 – Construction / Configuration
  - g. Phase 6 – Testing
  - h. Phase 7 – Implementation
  - i. Phase 8 – Training and Documentation

See **Section 1.050** for acceptance criteria.

#### B. Orientation Meeting

If requested by the State, within 10 calendar days from execution of the Contract, the Contractor must attend an orientation meeting to discuss the content and procedures of the Contract. The meeting must be held in Lansing, Michigan, at a date and time mutually acceptable to the State and the Contractor. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.

#### C. Performance Review Meetings

The Contractor must attend bi-weekly or monthly meetings to review the Contractor's performance under the Contract. The meetings must be held in Lansing, Michigan, or by teleconference, as mutually agreed by the State and the Contractor. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.

#### D. Project Control

1. The Contractor must carry out this project under the direction and control of MDE.
2. Within (10) business days of the execution of the Contract, each Contractor must submit the project plan to the Project Coordination Contractor that develops an overall, integrated project plan to the State Project Manager(s) for final approval. This project plan must be in agreement with **Section 1.022** and will include the following:
  - a. The Contractor's project organizational structure
  - b. The Contractor's staffing table with names and titles of personnel assigned to the project. This will be in agreement with staffing of accepted proposal. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.



- c. The project work breakdown structure (WBS) showing sub-projects, activities and tasks, and resources required and allocated to each.
3. The Contractor (particularly the Contractor administering online testing) must manage the project in accordance with the State Unified Information Technology Environment (SUITE) methodology, which includes standards for project management, systems engineering, and associated forms and templates, and which is available at <http://www.michigan.gov/suite>.
  - a. The Contractor must use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract. The tool will have the capability to produce:
    - 1) Staffing tables with names of personnel assigned to Contract tasks.
    - 2) Project plans showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed within the next 30 calendar days, updated weekly or biweekly as directed by the State PM).
    - 3) Updates must include actual time spent on each task and a revised estimate to complete.
    - 4) Graphs showing critical events, dependencies and decision points during the course of the Contract.
  - b. Any tool(s) used by the Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State standards.

The table below lists the current summative assessments, primary assessment activities and shows associated dates that are projected for 2013–14.



School Year 2013-2014		MEAP Fall		MEAP-ACCESS Fall		MI- ACCESS Fall		MI-ACCESS Spring		MME Spring	
		Start Date	Finish Date	Start Date	Finish Date	Start Date	Finish Date	Start Date	Finish Date	Start Date	Finish Date
1	Planning for Kick-off Meeting and Cycle	2/13	2/13	2/13	2/13	1/13	1/13	6/13	6/13	7/13	7/13
2	Administration Project Schedule	3/13	3/13	3/13	3/13	2/13	2/13	7/13	7/13	8/13	8/13
3	Electronic Document Management	3/13	3/13	3/13	3/13	3/13	3/13	7/13	7/13	7/13	7/13
4	Kick-Off Meeting	3/13	3/13	3/13	3/13	3/13	3/13	7/13	7/13	7/13	7/13
5	Quality Assurance Planning	3/13	9/14	3/13	9/14	2/13	9/14	7/13	6/14	8/13	6/14
6	Sampling Plan Distribution	4/13	6/13	4/13	6/13	4/13	6/13	8/13	10/13	NA	NA
7	Call Center(s)	3/13	2/14	3/13	2/14	3/13	2/14	7/13	6/14	10/13	9/14
8	School Readiness for Online Assessment										
9	Test Form Development	5/13	7/13	5/13	7/13	5/13	7/13	9/13	11/13	7/13	9/13
10	<b>Pre-Identification of Students</b>	<b>5/13</b>	<b>7/13</b>	<b>5/13</b>	<b>7/13</b>	<b>5/13</b>	<b>7/13</b>	<b>12/13</b>	<b>1/14</b>	<b>12/2/13</b>	<b>1/10/14</b>
11	System Integrations										
12	Test Preparation	4/13	6/13	4/13	6/13	4/13	6/13	10/13	10/13	6/13	6/13
13	Training of Test Administrators	9/13	9/13	9/13	9/13	9/13	9/13	1/14	1/14	11/13	11/13
14	Packaging and Distribution	7/13	10/13	7/13	10/13	7/13	10/13	12/13	2/14	1/14	3/14
	<b>Materials in Schools</b>	<b>9/24/13</b>		<b>9/24/13</b>		<b>9/17/13</b>		<b>1/27/14</b>		<b>2/20/14</b>	
15	<b>Test Administration</b>	<b>10/8/13</b>	<b>10/25/13</b>	<b>10/8/13</b>	<b>10/25/13</b>	<b>10/1/13</b>	<b>11/8/13</b>	<b>2/10/14</b>	<b>3/21/14</b>	<b>3/6/14</b>	<b>3/20/14</b>
16	Online Test Delivery	10/13	11/13	10/13	11/13	10/13	11/13	2/14	3/14	3/14	3/14
17	<b>Tested Roster</b>	<b>11/13</b>	<b>12/13</b>	<b>11/13</b>	<b>12/13</b>	<b>11/13</b>	<b>12/13</b>	<b>4/14</b>	<b>5/12</b>	<b>4/23/14</b>	<b>5/6/14</b>
18	Online Scoring	10/13	11/13	10/13	11/13	10/13	11/13	2/14	3/14	3/14	3/14
19	Contracted-response Scoring	11/13	11/13	11/13	11/13	11/13	11/13	3/14	3/14	4/14	4/14
20	<b>Return of Test Materials</b>	11/13	11/13	11/13	11/13	11/13	11/13	2/14	4/14	3/07/14 Initial Testing	3/7/14 Initial Testing
										3/21/14 Makeup Testing	3/21/14 Makeup Testing
21	Receipt of Printed Test Materials	11/13	11/13	11/13	11/13	11/13	11/13	2/14	4/14	3/14	3/14
22	Image Scanning of Print Documents	11/13	1/14	11/13	1/14	11/13	1/14	3/14	5/14	3/14	5/14
23	Scoring of Print Documents	11/13	1/14	11/13	1/14	11/13	1/14	3/14	5/14	3/14	5/14
24	Forensic Analysis of Test Administration	1/14	1/14	1/14	1/14	1/14	1/14	5/14	5/14	5/14	5/14
25	Receiving and Check-in of Scorable and Non-Scorable Documents and Materials	12/13	1/14	12/13	1/14	12/13	1/14	4/14	5/14	3/14	4/14
26	Special Reports Processing	2/14	3/14	2/14	3/14	2/14	3/14	6/14	6/14	?	?
	<b>Data Files Available to Schools</b>	<b>12/11/13</b>		<b>12/11/13</b>		<b>12/27/13</b>		<b>5/2/14</b>		<b>5/1/14</b>	
27	Reporting	11/13	1/14	11/13	1/14	11/13	1/14	3/14	5/14	3/14	6/14
28	<b>Printing, Packaging and Distribution of Score Reports</b>	12/13	1/14	12/13	1/14	12/13	1/14	4/14	5/14	6/13/14	6/23/14
	1. <b>First distribution of reports</b>									6/25/14	7/2/14
	2. <b>Career and Technical Education (CTE) Centers Reports</b>									7/3/14	7/7/14
	3. <b>Second Print Run for No Barcode Billing schools</b>										
29	Document Retention and Storage	11/13	12/13	11/13	12/13	11/13	12/13	3/14	4/14	5/14	5/14
30	Technical Report	2/14	4/14	2/14	4/14	2/14	4/14	6/14	8/14	8/14	8/14
31	Functional and System Requirements/Deliverables										
32	Formative Assessments for Michigan Educators										
33	Smarter Balanced Assessment Consortium Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



## **E. Test Administration Schedules**

1. Summative Assessment Schedule relative to 2014-15 and 2015-16 school years
  - a. MEAP/Smarter Balanced: last week of March through the end of May
  - b. MME: two-week window in mid-March
  - c. MI-Access: mid-February through mid-March
2. Interim Assessment Schedule relative to 2013-14, 2014-15, and 2015-16 school years
  - a. Grade-level Assessments
    - 1) Pre-test: September through mid-October
    - 2) Post-test: mid-April through May
  - b. Full-credit, Course-based Assessments
    - 1) Pre-test: September
    - 2) Post-test: May
  - c. Half-credit, Course-based Assessments
    - 1) Pre-test: September and February
    - 2) Post-test: January and May

### **1.042 Issue Management**

An issue is an identified event that if not addressed, may affect schedule, scope, quality, or budget.

The Contractor must describe how issues will be captured, reported and escalated within the Contractor's organization, including the issue escalation process and whether escalation will be based on age, severity, budget impact, etc. The State will escalate issues for resolution as follows:

- Level 1 — Business leads / Subject matter experts
- Level 2 — Project Managers / Project Leadership Team
- Level 3 — Executive Team

Once an issue has been identified by the Contractor, the Contractor must follow these steps:

1. Immediately communicate the issue in writing to the CCI, MDE Director, the respective DAS Manager and other appropriate MDE staff.
2. The Contractor must log the issue into an issue tracking system which contains the following minimum elements:
  - a. Description of issue
  - b. Status
  - c. Date reported
  - d. Resolution deadline
  - e. Date resolved
  - f. Project impact (e.g., schedule, resources)
  - g. Priority
  - h. Assigned to
  - i. Related risk
  - j. Notes
3. Identify what needs to be done and resources needed to correct the issue.
4. Receive approval from the CCI for appropriate action.
5. Keep CCI and appropriate MDE staff informed on status of issue based on frequency established by the CCI.
6. At least monthly, provide a listing of all issues with their current status, deadlines to correct, and actual dates of completion that have occurred over the previous six months to the CCI.

### **1.043 Risk Management**

A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project. If the unknown becomes known or the event occurs, a risk may escalate to become an issue.

Because the assessments within this Contract are large-scale and high-stakes, quality and deadlines are of utmost importance. Therefore, the risk assessment shall be reviewed, at minimum, during the Kick-Off meeting for each assessment cycle and shall include, but is not limited to, the following:

- Establishing a risk management plan including the identification and recording of risk items, prioritization of risks, definition of mitigation strategies, monitoring of risk items, and periodic risk assessment reviews with the State.
- Reviewing the project plan and timelines to ensure resources are, or will be, available.
- Identify deadlines for items and assessment material designs to allow sufficient time to produce.
- Qualitative review and approval of assessment materials by MDE staff designated by the CCI; at a minimum of the beginning, middle, and end of production.



- Approval for actual quantities to produce shall be given in writing by the CCI, or designee
- Accurate tracking of delivery, retrieval, logging, scanning, and storage of all assessment materials
- Preventative maintenance and accurate calibration of scanning equipment
- Identify data management and backup procedures.
- Perform school readiness on the equipment to be used for online assessment.

The Contractor must submit an initial risk management plan to the State for approval within 20 business days from execution of the Contract. The risk management plan must be in accordance with the State's PMM methodology. The Contractor must communicate the status of risks to the State's Project Manager weekly, as required or agreed, and the status will contain the following minimum elements:

- Risk
- Status
- Date documented
- Controlled
- Impact
- Description
- Trigger event
- Mitigation
- Likely project phase
- Owner

The Contractor is responsible for identification of risks throughout the life cycle of the project. Mitigating and/or eliminating risks will be the responsibility of the assigned party.

#### **1.044 Change Management**

Change management is defined as the process to communicate, assess, monitor, and control changes to system resources and processes. The State employs change management at the project level and in its administration of the Contracts.

The Contractor must employ change management procedures to handle requests that impact schedule or resources and such things as "out-of-scope" requests or enhancements. Change requests will be submitted to the Project Manager and must be approved by the State in writing before they are implemented. DTMB Procurement will issue an addendum to the Contract, via a Contract Change Notice, if the Change request is approved.

#### **1.045 Reports**

A weekly project status report is required from the Contractor to the State Project Manager on the topics of status, schedule, risks, issues, impediments, deliverables, change control, and accomplishments, beginning upon execution of the Contract for the duration of the Contract unless otherwise agreed to.

Reporting topics will include the following items.

- Project Status
- Planned % Complete
- Actual % complete
- Current SUITE stage
- Planned SUITE stage
- Planned Start Date
- Planned Finish Date
- Planned Hours
- Actual Start
- Actual Finish
- Actual Hours
- On Target for Completion (Y/N)
- New Forecast Completion Date
- # of Defects Identified
- # of Defects Resolved
- Pending Change Requests under the subheadings Corrective Actions and Enhancements
- Help Desk Issues
- Team Changes



## 1.050 Acceptance

### 1.051 Criteria

The following criteria will be used by the State to determine Acceptance of the Services and/or Deliverables provided under this SOW:

- A. Materials produced match the design provided and approved in writing by the CCI.
- B. The quantity of materials produced equals what was approved in writing by the CCI.
- C. The quality of the materials meets the specifications of the Contract.
- D. All materials produced have been accurately tracked and current location is on record. Any materials considered lost, misplaced, or in a condition of not readable are not acceptable.
- E. All reports and data files meet the specification of the Contract.
- F. All designated reports and data files are delivered to the State with acceptance in writing from the CCI.
- G. All answer documents are stored in a secure and environmentally controlled location during the length of the Contract.
- H. All materials to be destroyed are done so in confidential manner.

### General Acceptance

Upon the submission of a deliverable, the MDE Project Manager will provide written acceptance if all the work and the deliverable has been satisfactorily completed. The Contractor may, after receipt of such acceptance, submit an invoice for the deliverable payment. For the purposes of the initial project schedule, the Contractor must include 20 business days for acceptance reviews by MDE. This review period may be reduced for selected deliverable(s), but only at the sole discretion of the MDE Project Manager. In the event that the work and deliverables are not acceptable to the MDE Project Manager, the Contractor must correct the issues noted and re-submit by a date, as specified by the Project Manager.

### In the Event of Non-Acceptance by MDE

If a product and/or the documentation are not acceptable to the MDE Project Manager, the SOM will give the Contractor written notice stating why the product is unacceptable. The Contractor shall have twenty (20) business days from the receipt of such notice to correct the deficiencies. The SOM shall then have 20 business days to inspect, test and reevaluate the product. These 20 periods may be reduced for selected deliverable(s), but only at the sole discretion of the MDE Project Manager. If the product and documentation still does not satisfy the acceptance criteria, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination."

Upon receipt of the MDE Project Manager's written acceptance of the deliverable(s), the Contractor may submit an invoice for the payment of said deliverable(s).

### 1.052 Final Acceptance

The following requirements of final acceptance apply and Each assessment cycle is viewed as a project and is considered complete after:

- Documents are dated and in electronic format, compatible with State of Michigan software
- Requirements documents are reviewed and updated throughout the development process to assure requirements accurately describe the final product
- Draft documents are not accepted as final deliverables
- The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices



- MDE will review documents within a mutually agreed upon timeframe
  - a. Approvals will be written and signed by the MDE Project Manager
  - b. Issues will be documented and submitted to the Contractor
  - c. After issues are resolved or waived, the Contractor will resubmit documents for approval within 20 days of receipt
  - d. MDE has approved the final reports.
  - e. The final reports have been delivered to the appropriate location.
  - f. All final data files related to the cycle have been transferred to the State and approved by the CCI.

Final acceptance is expressly conditioned upon completion of all deliverables and/or milestones, completion of all tasks in the project plan as approved, completion of all applicable inspection and/or testing procedures, and the certification by the MDE Project Manager that the Contractor has met the defined requirements.

## **1.060 Proposal Pricing**

### **1.061 Proposal Pricing**

For authorized Services and Price List, see Attachment A.

Contractor's out-of-pocket expenses are not separately reimbursable by the State unless, on a case-by-case basis for unusual expenses, the State has agreed in advance and in writing to reimburse the Contractor for the expense at the State's current travel reimbursement rates. See [www.michigan.gov/dtmb](http://www.michigan.gov/dtmb) for current rates.

Notwithstanding any requirements as noted in Article 2, compensation will be through an invoicing process for actual items and quantities approved in writing by the MDE Contract Compliance Inspector (CCI) and actually provided/produced by the Contractor that meets the specification of this contract and using the appropriate rates provided by the Contractor in Attachment A: Pricing. With each invoice, the Contractor shall provide a report that lists, at minimum for each line item being billed, the quantities ordered and the quantities actually provided/produced. Each invoice shall clearly segregate charges by programs (i.e. MEAP, MME, MI-Access, MEAP-Access, IBA/ Formative Assessment related activities, ELPA, SCA).

All rates must be stand-alone. If any line in the pricing list is reduced or increased in part, or in its entirety, it must not affect that or any other price/rate.

Quantities listed in the pricing list are estimates for budget purposes. They are not to be construed as an order. The Contractor must have written approval of quantities and/or tasks from the MDE CCI (or designee) before beginning work on any line item.

With the exception of severe market changes outside the control of the Contractor that occur after the date the bids are submitted, any short-sightedness of the Contractor to provide sufficient resources for the deliverables of this contract and within the established timelines shall not be an acceptable reason for changing any price/rate.

### **1.062 Price Term**

Prices quoted are firm for the entire length of the Contract.

### **1.063 Tax Excluded from Price**

(a) Sales Tax: For purchases made directly by the State, the State is exempt from State and Local Sales Tax. Prices will not include the taxes. Exemption Certificates for State Sales Tax will be furnished upon request.

(b) Federal Excise Tax: The State may be exempt from Federal Excise Tax, or the taxes may be reimbursable, if articles purchased under any resulting Contract are used for the State's exclusive use. Certificates showing exclusive use for the purposes of substantiating a tax-free or tax-reimbursable sale will be sent upon request. If a sale is tax exempt or tax reimbursable under the Internal Revenue Code, prices will not include the Federal Excise Tax.

### **1.064 Holdback - Reserved**

#### **1.070 Reserved**



## **Article 2, Terms and Conditions**

### **2.000 Contract Structure and Term**

#### **2.001 Contract Term**

The Contract is for a period of three years beginning August 9, 2013, through August 8, 2016. All outstanding Purchase Orders will also expire upon the termination (cancellation for any of the reasons listed in **Section 2.150**) of the Contract, unless otherwise extended under the Contract. Absent an early termination for any reason, Purchase Orders issued but not expired, by the end of the Contract's stated term, will remain in effect for the balance of the fiscal year for which they were issued.

#### **2.002 Options to Renew**

The Contract may be renewed in writing by mutual agreement of the parties not less than 30 days before its expiration. The Contract may be renewed for up to three additional one-year periods.

#### **2.003 Legal Effect**

Contractor will show acceptance of the Contract by signing two (2) copies of the Contract and returning them to the Contract Administrator. The Contractor will not proceed with the performance of the work to be done under the Contract, including the purchase of necessary materials, until both parties have signed the Contract to show acceptance of its terms, and the Contractor receives a Contract release/purchase order that authorizes and defines specific performance requirements.

Except as otherwise agreed in writing by the parties, the State assumes no liability for costs incurred by Contractor or payment under the Contract, until Contractor is notified in writing that the Contract (or Change Order) has been approved by the State Administrative Board (if required), approved and signed by all the parties, and a Purchase Order against the Contract has been issued.

#### **2.004 Attachments & Exhibits**

All Attachments and Exhibits affixed to any and all Statement(s) of Work, or appended to or referencing the Contract, are incorporated in their entirety and form part of the Contract.

#### **2.005 Ordering**

The State will issue a written Purchase Order, Blanket Purchase Order, Direct Voucher or Procurement Card Order, which will be approved by the Contract Administrator or the Contract Administrator's designee, to order any Services/Deliverables under the Contract. All orders are subject to the terms and conditions of the Contract. No additional terms and conditions contained on either a Purchase Order or Blanket Purchase Order apply unless they are also specifically contained in that Purchase Order's or Blanket Purchase Order's accompanying Statement of Work. Exact quantities to be purchased are unknown; however, the Contractor will furnish all such materials and services as may be ordered during the Contract period. Quantities specified, if any, are estimates based on prior purchases, and the State is not obligated to purchase in these or any other quantities.

#### **2.006 Order of Precedence**

(a) The Contract, including any Statements of Work and Exhibits, to the extent not contrary to the Contract, each of which is incorporated for all purposes, constitutes the entire agreement between the parties with respect to the subject matter and supersedes all prior agreements, whether written or oral, with respect to the subject matter and as additional terms and conditions on the purchase order will apply as limited by **Section 2.005**.

(b) In the event of any inconsistency between the terms of the Contract and a Statement of Work, the terms of the Statement of Work will take precedence (as to that Statement of Work only); provided, however, that a Statement of Work may not modify or amend the terms of the Contract, which may be modified or amended only by a formal Contract amendment.

#### **2.007 Headings**

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of the Contract.

#### **2.008 Form, Function & Utility**

If the Contract is for use of more than one (1) State agency and if the Deliverable/Service does not meet the form, function, and utility required by that State agency, that agency may, subject to State purchasing policies, procure the Deliverable/Service from another source.



### 2.009 Reformation and Severability

Each provision of the Contract is severable from all other provisions of the Contract and, if one (1) or more of the provisions of the Contract is declared invalid, the remaining provisions of the Contract remain in full force and effect.

### 2.010 Consents and Approvals

Except as expressly provided otherwise in the Contract, if either party requires the consent or approval of the other party for the taking of any action under the Contract, the consent or approval will be in writing and will not be unreasonably withheld or delayed.

### 2.011 No Waiver of Default

If a party fails to insist upon strict adherence to any term of the Contract then the party has not waived the right to later insist upon strict adherence to that term, or any other term, of the Contract.

### 2.012 Survival

Any provisions of the Contract that impose continuing obligations on the parties, including without limitation the parties' respective warranty, indemnity and confidentiality obligations, survive the expiration or termination of the Contract for any reason. Specific references to survival in the Contract are solely for identification purposes and not meant to limit or prevent the survival of any other section.

## 2.020 Contract Administration

### 2.021 Issuing Office

The Contract is issued by the Department of Technology, Management and Budget, DTMB-Procurement and Bureau of Assessment and Accountability (collectively, including all other relevant State of Michigan departments and agencies, the "State"). DTMB-Procurement is the sole point of contact in the State with regard to all procurement and contractual matters relating to the Contract. DTMB-Procurement **is the only State office authorized to change, modify, amend, alter or clarify the prices, specifications, terms and conditions of the Contract.** The Contractor Administrator within DTMB-Procurement for the Contract is:

Angela Buren, Buyer  
Procurement  
Department of Technology, Management and Budget  
Mason Bldg., 2nd Floor  
PO Box 30026  
Lansing, MI 48909  
Email [Burena@michigan.gov](mailto:Burena@michigan.gov)  
Phone (517) 373-0325

### 2.022 Contract Compliance Inspector

After DTMB-Procurement receives the properly executed Contract, it is anticipated that the Chief Procurement Officer of DTMB-Procurement, in consultation with Michigan Department of Education, will direct the person named below, or any other person so designated, to monitor and coordinate the activities for the Contract on a day-to-day basis during its term. However, monitoring of the Contract implies **no authority to change, modify, clarify, amend, or otherwise alter the prices, terms, conditions and specifications of the Contract as that authority is retained by DTMB Procurement.** The CCI for the Contract is:

Vince Dean, Director  
Office of Standards and Assessment  
Michigan Department of Education  
P.O. Box 30008  
Lansing, MI 48909  
[DeanV@Michigan.gov](mailto:DeanV@Michigan.gov)  
(517) 241-2694  
Fax 517- 335-1186

### 2.023 Project Manager

The following individual will oversee the project:



David Judd, David Judd, State Office Administrator 17  
Division of Accountability Services  
Michigan Department of Education  
P.O. Box 30008  
Lansing, MI 48909  
JuddD@michigan.gov  
(517) 373-4311  
Fax 517- 335-1186

#### **2.024 Change Requests**

The State reserves the right to request, from time to time, any changes to the requirements and specifications of the Contract and the work to be performed by the Contractor under the Contract. During the course of ordinary business, it may become necessary for the State to discontinue certain business practices or create Additional Services/Deliverables. At a minimum, to the extent applicable, the State would like the Contractor to provide a detailed outline of all work to be done, including tasks necessary to accomplish the services/deliverables, timeframes, listing of key personnel assigned, estimated hours for each individual per task, and a complete and detailed cost justification.

If the Contractor does not so notify the State, the Contractor has no right to claim thereafter that it is entitled to additional compensation for performing that service or providing that deliverable.

#### **Change Requests:**

- (a) By giving Contractor written notice within a reasonable time, the State will be entitled to accept a Contractor proposal for Change, to reject it, or to reach another agreement with Contractor. Should the parties agree on carrying out a Change, a written Contract Change Notice will be prepared and issued under the Contract, describing the Change and its effects on the Services and any affected components of the Contract (a "Contract Change Notice").
- (b) No proposed Change may be performed until the proposed Change has been specified in a duly executed Contract Change Notice issued by the DTMB-Procurement.
- (c) If the State requests or directs the Contractor to perform any activities that Contractor believes constitute a Change, the Contractor will notify the State that it believes the requested activities are a Change before beginning to work on the requested activities. If the Contractor fails to notify the State before beginning to work on the requested activities, then the Contractor waives any right to assert any claim for additional compensation or time for performing the requested activities. If the Contractor commences performing work outside the scope of the Contract and then ceases performing that work, the Contractor will, at the request of the State, retract any out-of-scope work that would adversely affect the Contract.

#### **2.025 Notices**

Any notice given to a party under the Contract will be deemed effective, if addressed to the State contact as noted in **Section 1.021** and the Contractor's contact as noted on the cover page of the contract, upon: (i) delivery, if hand delivered; (ii) receipt of a confirmed transmission by facsimile if a copy of the notice is sent by another means specified in this Section; (iii) the third Business Day after being sent by U.S. mail, postage pre-paid, return receipt requested; or (iv) the next Business Day after being sent by a nationally recognized overnight express courier with a reliable tracking system.

Either party may change its address where notices are to be sent by giving notice according to this Section.

#### **2.026 Binding Commitments**

Representatives of Contractor will have the authority to make binding commitments on Contractor's behalf within the bounds set forth in the Contract. Contractor may change the representatives from time to time upon written notice.

#### **2.027 Relationship of the Parties**

The relationship between the State and Contractor is that of client and independent Contractor. No agent, employee, or servant of Contractor or any of its SubContractors will be deemed to be an employee, agent or servant of the State for any reason. Contractor is solely and entirely responsible for its acts and the acts of its agents, employees, servants and SubContractors during the performance of the Contract.

#### **2.028 Covenant of Good Faith**

Each party will act reasonably and in good faith. Unless stated otherwise in the Contract, the parties will not unreasonably delay, condition, or withhold the giving of any consent, decision, or approval that is either requested or reasonably required of them in order for the other party to perform its responsibilities under the Contract.



## **2.029 Assignments**

(a) Neither party may assign the Contract, or assign or delegate any of its duties or obligations under the Contract, to any other party (whether by operation of law or otherwise), without the prior written consent of the other party; provided, however, that the State may assign the Contract to any other State agency, department, division or department without the prior consent of Contractor and Contractor may assign the Contract to an affiliate so long as the affiliate is adequately capitalized and can provide adequate assurances that the affiliate can perform the requirements of the Contract. The State may withhold consent from proposed assignments, subcontracts, or novations when the transfer of responsibility would operate to decrease the State's likelihood of receiving performance on the Contract or the State's ability to recover damages.

(b) Contractor may not, without the prior written approval of the State, assign its right to receive payments due under the Contract. If the State permits an assignment, the Contractor is not relieved of its responsibility to perform any of its contractual duties, and the requirement under the Contract that all payments will be made to one (1) entity continues.

(c) If the Contractor intends to assign the Contract or any of the Contractor's rights or duties under the Contract, the Contractor will notify the State in writing at least 90 days before the assignment. The Contractor also will provide the State with adequate information about the assignee within a reasonable amount of time before the assignment for the State to determine whether to approve the assignment.

## **2.030 General Provisions**

### **2.031 Media Releases**

News releases (including promotional literature and commercial advertisements) pertaining to the Contract and Contract or project to which it relates will not be made without prior written State approval, and then only in accordance with the explicit written instructions from the State. No results of the activities associated with the Contract and Contract are to be released without prior written approval of the State and then only to persons designated.

### **2.032 Contract Distribution**

DTMB-Procurement retains the sole right of Contract distribution to all State agencies and local units of government unless other arrangements are authorized by DTMB-Procurement.

### **2.033 Permits**

Contractor will obtain and pay any associated costs for all required governmental permits, licenses and approvals for the delivery, installation and performance of the Services. The State will pay for all costs and expenses incurred in obtaining and maintaining any necessary easements or right of way.

### **2.034 Website Incorporation**

The State is not bound by any content on the Contractor's website, even if the Contractor's documentation specifically referenced that content and attempts to incorporate it into any other communication, unless the State has actual knowledge of the content and has expressly agreed to be bound by it in a writing that has been manually signed by an authorized representative of the State.

### **2.035 Future Bidding Preclusion**

Contractor acknowledges that, to the extent the Contract involves the creation, research, investigation or generation of a future RFP, it may be precluded from bidding on the subsequent RFP. The State reserves the right to disqualify any Bidder if the State determines that the Bidder has used its position (whether as an incumbent Contractor, or as a Contractor hired to assist with the Contract development, or as a Vendor offering free assistance) to gain a competitive advantage on the RFP.

### **2.036 Freedom of Information**

All information in any proposal submitted to the State by Contractor and the Contract is subject to the provisions of the Michigan Freedom of Information Act, 1976 PA 442, MCL 15.231, et seq (the "FOIA").

### **2.037 Disaster Recovery**

Contractor and the State recognize that the State provides essential services in times of natural or man-made disasters. Therefore, except as so mandated by Federal disaster response requirements, Contractor personnel dedicated to providing Services/Deliverables under the Contract will provide the State with priority service for repair and work around in the event of a natural or man-made disaster.



## 2.040 Financial Provisions

### 2.041 Fixed Prices for Services/Deliverables

Each Statement of Work or Purchase Order issued under the Contract will specify (or indicate by reference to the appropriate Contract Exhibit) the firm, fixed prices for all Services/Deliverables, and the associated payment milestones and payment amounts. The State may make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts approved by the Contract Administrator, after negotiation. Contractor will show verification of measurable progress at the time of requesting progress payments.

### 2.042 Adjustments for Reductions in Scope of Services/Deliverables

If the scope of the Services/Deliverables under any Statement of Work issued under the Contract is subsequently reduced by the State, the parties will negotiate an equitable reduction in Contractor's charges under such Statement of Work commensurate with the reduction in scope.

### 2.043 Services/Deliverables Covered

For all Services/Deliverables to be provided by Contractor (and its Subcontractors, if any) under the Contract, the State will not be obligated to pay any amounts in addition to the charges specified in the Contract.

### 2.044 Invoicing and Payment – In General

- (a) Each Statement of Work issued under the Contract will list (or indicate by reference to the appropriate Contract Exhibit) the prices for all Services/Deliverables, equipment and commodities to be provided, and the associated payment milestones and payment amounts.
- (b) Each Contractor invoice will show details as to charges by Service/Deliverable component and location at a level of detail reasonably necessary to satisfy the State's accounting and charge-back requirements. Invoices for Services performed on a time and materials basis will show, for each individual, the number of hours of Services performed during the billing period, the billable skill/labor category for such person and the applicable hourly billing rate. Prompt payment by the State is contingent on the Contractor's invoices showing the amount owed by the State minus any holdback amount to be retained by the State in accordance with **Section 1.064**.
- (c) Correct invoices will be due and payable by the State, in accordance with the State's standard payment procedure as specified in 1984 PA 279, MCL 17.51 et seq., within 45 days after receipt, provided the State determines that the invoice was properly rendered.
- (d) Contract Payment Schedule
1. Contractor request for performance-based payment.  
The Contractor may submit requests for payment of performance-based payments not more frequently than monthly, in a form and manner acceptable to the CCI. Unless otherwise authorized by the CCI, all performance-based payments in any period for which payment is being requested will be included in a single request, appropriately itemized and totaled.
  2. Approval and payment of requests.
    - a) The Contractor is not entitled to payment of a request for performance-based payment prior to successful accomplishment of the event or performance criterion for which payment is requested. The CCI will determine whether the event or performance criterion for which payment is requested has been successfully accomplished in accordance with the terms of the Contract. The CCI may, at any time, require the Contractor to substantiate the successful performance of any event or performance criterion, which has been or is represented as being payable.
    - b) A payment under this performance-based payment clause is a contract financing payment under the Quick Payment Terms in **Section 1.061** of the Contract.
    - c) The approval by the CCI of a request for performance-based payment does not constitute an acceptance by the State and does not excuse the Contractor from performance of obligations under the Contract.

### 2.045 Pro-ration

To the extent there are any Services that are to be paid for on a monthly basis, the cost of such Services will be pro-rated for any partial month.



#### **2.046 Antitrust Assignment**

The Contractor assigns to the State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Contractor, toward fulfillment of the Contract.

#### **2.047 Final Payment**

The making of final payment by the State to Contractor does not constitute a waiver by either party of any rights or other claims as to the other party's continuing obligations under the Contract, nor will it constitute a waiver of any claims by one (1) party against the other arising from unsettled claims or failure by a party to comply with the Contract, including claims for Services and Deliverables not reasonably known until after acceptance to be defective or substandard. Contractor's acceptance of final payment by the State under the Contract will constitute a waiver of all claims by Contractor against the State for payment under the Contract, other than those claims previously filed in writing on a timely basis and still unsettled.

#### **2.048 Electronic Payment Requirement**

Electronic transfer of funds is required for payments on State contracts. The Contractor will register with the State electronically at <http://www.cpexpress.State.mi.us>. As Stated in 1984 PA 431, all contracts that the State enters into for the purchase of goods and services will provide that payment will be made by Electronic Fund Transfer (EFT).

### **2.050 Taxes**

#### **2.051 Employment Taxes**

Contractors are expected to collect and pay all applicable Federal, State, and local employment taxes.

#### **2.052 Sales and Use Taxes**

Contractors are required to be registered and to remit sales and use taxes on taxable sales of tangible personal property or services delivered into the State. Contractors that lack sufficient presence in Michigan to be required to register and pay tax will do so as a volunteer. This requirement extends to: (1) all members of any controlled group as defined in § 1563(a) of the Internal Revenue Code and applicable regulations of which the company is a member, and (2) all organizations under common control as defined in § 414(c) of the Internal Revenue Code and applicable regulations of which the company is a member that make sales at retail for delivery into the State are registered with the State for the collection and remittance of sales and use taxes. In applying treasury regulations defining "two (2) or more trades or businesses under common control" the term "organization" means sole proprietorship, a partnership (as defined in § 701(a)(2) of the Internal Revenue Code), a trust, an eState, a corporation, or a limited liability company.

### **2.060 Contract Management**

#### **2.061 Contractor Personnel Qualifications**

All persons assigned by Contractor to the performance of Services under the Contract will be employees of Contractor or its majority-owned (directly or indirectly, at any tier) subsidiaries (or a State-approved SubContractor) and will be fully qualified to perform the work assigned to them. Contractor will include a similar provision in any subcontract entered into with a SubContractor. For the purposes of the Contract, independent Contractors engaged by Contractor solely in a staff augmentation role will be treated by the State as if they were employees of Contractor for the Contract only; however, the State understands that the relationship between Contractor and SubContractor is an independent Contractor relationship.

#### **2.062 Contractor Key Personnel**

(a) The Contractor will provide the CCI with the names of the Key Personnel.

(b) Key Personnel will be dedicated as defined in the Statement of Work to the Project for its duration in the applicable Statement of Work with respect to other individuals designated as Key Personnel for that Statement of Work.

(c) The State reserves the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, will introduce the individual to the appropriate State representatives, and will provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.



(d) Contractor will not remove any Key Personnel from their assigned roles on the Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("Unauthorized Removal"). Unauthorized Removals does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Unauthorized Removals does not include replacing Key Personnel because of promotions or other job movements allowed by Contractor personnel policies or Collective Bargaining Agreement(s) as long as the State receives prior written notice before shadowing occurs and Contractor provides 30 days of shadowing unless parties agree to a different time period. The Contractor with the State will review any Key Personnel replacements and appropriate transition planning will be established. Any Unauthorized Removal may be considered by the State to be a material breach of the Contract, in respect of which the State may elect to exercise its termination and cancellation rights.

(e) The Contractor will notify the Contract Compliance Inspector and the Contract Administrator at least 10 business days before redeploying non-Key Personnel, who are dedicated to primarily to the Project, to other projects. If the State does not object to the redeployment by its scheduled date, the Contractor may then redeploy the non-Key Personnel.

### **2.063 Re-assignment of Personnel at the State's Request**

The State reserves the right to require the removal from the Project of Contractor personnel found, in the judgment of the State, to be unacceptable. The State's request will be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request will be based on legitimate, good-faith reasons. Replacement personnel for the removed person will be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed personnel, the State agrees to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any incident with removed personnel results in delay not reasonably anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Service will not be counted for a time as agreed to by the parties.

### **Unauthorized Removal of Key Personnel**

It is acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of the Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 2.152**, the State may assess liquidated damages against Contractor as specified below.

For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the liquidated damages amount is \$25,000.00 per individual if the Contractor identifies a replacement approved by the State under **Section 2.060** and assigns the replacement to the Project to shadow the Key Personnel who is leaving for a period of at least 30 days before the Key Personnel's removal.

If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 days, in addition to the \$25,000.00 liquidated damages for an Unauthorized Removal, Contractor will pay the amount of \$833.33 per day for each day of the 30 day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$25,000.00 maximum per individual. The total liquidated damages that may be assessed per Unauthorized Removal and failure to provide 30 days of shadowing will not exceed \$50,000.00 per individual.

### **2.064 Contractor Personnel Location**

All staff assigned by Contractor to work on the Contract will perform their duties either primarily at Contractor's offices and facilities or at State facilities. Without limiting the generality of the foregoing, Key Personnel will, at a minimum, spend at least the amount of time on-site at State facilities as indicated in the applicable Statement of Work. Subject to availability, selected Contractor personnel may be assigned office space to be shared with State personnel.

### **2.065 Contractor Identification**

Contractor employees will be clearly identifiable while on State property by wearing a State-issued badge, as required. Contractor employees are required to clearly identify themselves and the company they work for whenever making contact with State personnel by telephone or other means.



### **2.066 Cooperation with Third Parties**

Contractor will cause its personnel and the personnel of any Subcontractors to cooperate with the State and its agents and other Contractors including the State's Quality Assurance personnel. As reasonably requested by the State in writing, the Contractor will provide to the State's agents and other Contractors reasonable access to Contractor's Project personnel, systems and facilities to the extent the access relates to activities specifically associated with the Contract and will not interfere or jeopardize the safety or operation of the systems or facilities. The State acknowledges that Contractor's time schedule for the Contract is very specific and will not unnecessarily or unreasonably interfere with, delay, or otherwise impede Contractor's performance under the Contract with the requests for access.

### **2.067 Contractor Return of State Equipment/Resources**

The Contractor will return to the State any State-furnished equipment, facilities, and other resources when no longer required for the Contract in the same condition as when provided by the State, reasonable wear and tear excepted.

### **2.068 Contract Management Responsibilities**

The Contractor will assume responsibility for all contractual activities, whether or not that Contractor performs them. Further, the State considers the Contractor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the anticipated Contract. If any part of the work is to be subcontracted, the Contract will include a list of Subcontractors, including firm name and address, contact person and a complete description of work to be subcontracted. The State reserves the right to approve Subcontractors and to require the Contractor to replace Subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the Subcontractor to all provisions of the Contract. Any change in Subcontractors will be approved by the State, in writing, prior to such change.

## **2.070 Subcontracting by Contractor**

### **2.071 Contractor Full Responsibility**

Contractor has full responsibility for the successful performance and completion of all of the Services and Deliverables. The State will consider Contractor to be the sole point of contact with regard to all contractual matters under the Contract, including payment of any and all charges for Services and Deliverables.

### **2.072 State Consent to Delegation**

Contractor will not delegate any duties under the Contract to a Subcontractor unless the DTMB-Procurement has given written consent to such delegation. The State reserves the right of prior written approval of all Subcontractors and to require Contractor to replace any Subcontractors found, in the reasonable judgment of the State, to be unacceptable. The State's request will be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request will be based on legitimate, good-faith reasons. Replacement Subcontractor(s) for the removed Subcontractor will be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed Subcontractor, the State will agree to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any such incident with a removed Subcontractor results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLA for the affected Work will not be counted for a time agreed upon by the parties.

### **2.073 Subcontractor Bound to Contract**

In any subcontracts entered into by Contractor for the performance of the Services, Contractor will require the Subcontractor, to the extent of the Services to be performed by the Subcontractor, to be bound to Contractor by the terms of the Contract and to assume toward Contractor all of the obligations and responsibilities that Contractor, by the Contract, assumes toward the State. The State reserves the right to receive copies of and review all subcontracts, although Contractor may delete or mask any proprietary information, including pricing, contained in such contracts before providing them to the State. The management of any Subcontractor is the responsibility of Contractor, and Contractor will remain responsible for the performance of its Subcontractors to the same extent as if Contractor had not subcontracted such performance. Contractor will make all payments to Subcontractors or suppliers of Contractor. Except as otherwise agreed in writing by the State and Contractor, the State will not be obligated to direct payments for the Services other than to Contractor. The State's written approval of any Subcontractor engaged by Contractor to perform any obligation under the Contract will not relieve Contractor of any obligations or performance required under the Contract.

### **2.074 Flow Down**

Except where specifically approved in writing by the State on a case-by-case basis, Contractor will flow down the obligations in **Sections 2.031, 2.060, 2.100, 2.110, 2.120, 2.130, 2.200** in all of its agreements with any Subcontractors.



## **2.075 Competitive Selection**

The Contractor will select Subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the Contract.

## **2.080 State Responsibilities**

### **2.081 Equipment**

The State will provide only the equipment and resources identified in the Statements of Work and other Contract Exhibits.

### **2.082 Facilities**

The State will designate space as long as it is available and as provided in the Statement of Work, to house the Contractor's personnel whom the parties agree will perform the Services/Deliverables at State facilities (collectively, the "State Facilities"). The Contractor will have reasonable access to, and, unless agreed otherwise by the parties in writing, will observe and comply with all rules and regulations relating to each of the State Facilities (including hours of operation) used by the Contractor in the course of providing the Services. Contractor will not, without the prior written consent of the State, use any State Facilities or access any State information systems provided for the Contractor's use, or to which the Contractor otherwise gains access in the course of performing the Services, for any purpose other than providing the Services to the State.

## **2.090 Security**

### **2.091 Background Checks**

On a case-by-case basis, the State may investigate the Contractor's personnel before they may have access to State facilities and systems. The scope of the background check is at the discretion of the State and the results will be used to determine Contractor personnel eligibility for working within State facilities and systems. The investigations will include Michigan State Police Background checks (ICHAT) and may include the National Crime Information Center (NCIC) Finger Prints. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Fingerprint Check. Any request for background checks will be initiated by the State and will be reasonably related to the type of work requested.

### **2.092 Security Breach Notification**

If the Contractor breaches this Section, the Contractor will (i) promptly cure any deficiencies and (ii) comply with any applicable Federal and State laws and regulations pertaining to unauthorized disclosures. Contractor and the State will cooperate to mitigate, to the extent practicable, the effects of any breach, intrusion, or unauthorized use or disclosure. Contractor will report to the State, in writing, any use or disclosure of Confidential Information, whether suspected or actual, other than as provided for by the Contract within 10 days of becoming aware of the use or disclosure or the shorter time period as is reasonable under the circumstances.

### **2.093 PCI Data Security Standard**

(a) Contractors that process, transmit or store credit/debit cardholder data, will adhere to the Payment Card Industry (PCI) Data Security Standards. The Contractor is responsible for the security of cardholder data in its possession. The data may only be used to assist the State or for other uses specifically authorized by law.

(b) The Contractor will notify the CCI (within 72 hours of discovery) of any breaches in security where cardholder data has been compromised. In that event, the Contractor will provide full cooperation to the Visa, MasterCard, Discover and State Acquirer representative(s), and/or a PCI approved third party to conduct a thorough security review. The Contractor will make the forensic report available within two weeks of completion. The review will validate compliance with the current PCI Data Security Standards for protecting cardholder data.

(c) The Contractor will properly dispose of cardholder data, in compliance with DTMB policy, when it is no longer needed. The Contractor will continue to treat cardholder data as confidential upon contract termination.

(d) The Contractor will provide the CCI with an annual Attestation of Compliance (AOC) or a Report on Compliance (ROC) showing the Contractor is in compliance with the PCI Data Security Standards. The Contractor will notify the CCI of all failures to comply with the PCI Data Security Standard.



## **2.100 Confidentiality**

### **2.101 Confidentiality**

Contractor and the State each acknowledge that the other possesses, and will continue to possess, confidential information that has been developed or received by it. As used in this Section, "Confidential Information" of Contractor will mean all non-public proprietary information of Contractor (other than Confidential Information of the State as defined below) which is marked confidential, restricted, proprietary, or with a similar designation. "Confidential Information" of the State will mean any information which is retained in confidence by the State (or otherwise required to be held in confidence by the State under applicable Federal, State and local laws and regulations) or which, in the case of tangible materials provided to Contractor by the State under its performance under the Contract, is marked as confidential, proprietary, or with a similar designation by the State. "Confidential Information" excludes any information (including the Contract) that is publicly available under the Michigan FOIA.

### **2.102 Protection and Destruction of Confidential Information**

The State and Contractor will each use at least the same degree of care to prevent disclosing to third parties the Confidential Information of the other as it employs to avoid unauthorized disclosure, publication, or dissemination of its own confidential information of like character, but in no event less than reasonable care. Neither Contractor nor the State will (i) make any use of the Confidential Information of the other except as contemplated by the Contract, (ii) acquire any right in or assert any lien against the Confidential Information of the other, or (iii) if requested to do so, refuse for any reason to promptly return the other party's Confidential Information to the other party. Each party will limit disclosure of the other party's Confidential Information to employees and Subcontractors who will have access to fulfill the purposes of the Contract. Disclosure to, and use by, a Subcontractor is permissible where (A) use of a Subcontractor is authorized under the Contract, (B) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Subcontractor's scope of responsibility, and (C) Contractor obligates the Subcontractor in a written Contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor and of any Subcontractor having access or continued access to the State's Confidential Information may be required to execute an acknowledgment that the employee has been advised of Contractor's and the Subcontractor's obligations under this Section and of the employee's obligation to Contractor or Subcontractor, as the case may be, to protect the Confidential Information from unauthorized use or disclosure.

Promptly upon termination or cancellation of the Contract for any reason, Contractor will certify to the State that Contractor has destroyed all State Confidential Information.

### **2.103 Exclusions**

Notwithstanding the foregoing, the provisions of **Section 2.100** will not apply to any particular information which the State or Contractor can demonstrate (i) was, at the time of disclosure to it, in the public domain; (ii) after disclosure to it, is published or otherwise becomes part of the public domain through no fault of the receiving party; (iii) was in the possession of the receiving party at the time of disclosure to it without an obligation of confidentiality; (iv) was received after disclosure to it from a third party who had a lawful right to disclose the information to it without any obligation to restrict its further disclosure; or (v) was independently developed by the receiving party without reference to Confidential Information of the furnishing party. Further, the provisions of **Section 2.100** will not apply to any particular Confidential Information to the extent the receiving party is required by law to disclose the Confidential Information, provided that the receiving party (i) promptly provides the furnishing party with notice of the legal request, and (ii) assists the furnishing party in resisting or limiting the scope of the disclosure as reasonably requested by the furnishing party.

### **2.104 No Implied Rights**

Nothing contained in this Section will be construed as obligating a party to disclose any particular Confidential Information to the other party, or as granting to or conferring on a party, expressly or impliedly, any right or license to the Confidential Information of the other party.

### **2.105 Respective Obligations**

The parties' respective obligations under this Section will survive the termination or expiration of the Contract for any reason.



## **2.110 Records and Inspections**

### **2.111 Inspection of Work Performed**

The State's authorized representatives will at all reasonable times and with 10 days prior written request, have the right to enter Contractor's premises, or any other places, where the Services are being performed, and will have access, upon reasonable request, to interim drafts of Deliverables or work-in-progress. Upon 10 Days prior written notice and at all reasonable times, the State's representatives will be allowed to inspect, monitor, or otherwise evaluate the work being performed and to the extent that the access will not reasonably interfere or jeopardize the safety or operation of the systems or facilities. Contractor will provide all reasonable facilities and assistance for the State's representatives.

### **2.112 Examination of Records**

For seven (7) years after the Contractor provides any work under the Contract (the "Audit Period"), the State may examine and copy any of Contractor's books, records, documents and papers pertinent to establishing Contractor's compliance with the Contract and with applicable laws and rules. The State will notify the Contractor 20 days before examining the Contractor's books and records. The State does not have the right to review any information deemed confidential by the Contractor to the extent access would require the confidential information to become publicly available. This provision also applies to the books, records, accounts, documents and papers, in print or electronic form, of any parent, affiliated or subsidiary organization of Contractor, or any Subcontractor of Contractor performing services in connection with the Contract.

### **2.113 Retention of Records**

Contractor will maintain at least until the end of the Audit Period, all pertinent financial and accounting records (including time sheets and payroll records, information pertaining to the Contract, and to the Services, equipment, and commodities provided under the Contract) pertaining to the Contract according to generally accepted accounting principles and other procedures specified in this Section. Financial and accounting records will be made available, upon request, to the State at any time during the Audit Period. If an audit, litigation, or other action involving Contractor's records is initiated before the end of the Audit Period, the records will be retained until all issues arising out of the audit, litigation, or other action are resolved or until the end of the Audit Period, whichever is later.

### **2.114 Audit Resolution**

If necessary, the Contractor and the State will meet to review each audit report promptly after issuance. The Contractor will respond to each audit report in writing within 30 days from receipt of the report, unless a shorter response time is specified in the report. The Contractor and the State will develop, agree upon and monitor an action plan to promptly address and resolve any deficiencies, concerns, and/or recommendations in the audit report.

### **2.115 Errors**

(a) If the audit demonstrates any errors in the documents provided to the State, then the amount in error will be reflected as a credit or debit on the next invoice and in subsequent invoices until the amount is paid or refunded in full. However, a credit or debit may not be carried for more than four (4) invoices. If a balance remains after four (4) invoices, then the remaining amount will be due as a payment or refund within 45 days of the last quarterly invoice that the balance appeared on or termination of the Contract, whichever is earlier.

(b) In addition to other available remedies, the difference between the payment received and the correct payment amount is greater than 10%, then the Contractor will pay all of the reasonable costs of the audit.

## **2.120 Warranties**

### **2.121 Warranties and Representations**

The Contractor represents and warrants:

(a) It is capable in all respects of fulfilling and will fulfill all of its obligations under the Contract. The performance of all obligations under the Contract will be provided in a timely, professional, and workman-like manner and will meet the performance and operational standards required under the Contract.

(b) The Contract Appendices, Attachments and Exhibits identify the equipment and software and services necessary for the Deliverable(s) to perform and Services to operate in compliance with the Contract's requirements and other standards of performance.



(c) It is the lawful owner or licensee of any Deliverable licensed or sold to the State by Contractor or developed by Contractor under the Contract, and Contractor has all of the rights necessary to convey to the State the ownership rights or licensed use, as applicable, of any and all Deliverables. None of the Deliverables provided by Contractor to the State under the Contract, nor their use by the State, will infringe the patent, copyright, trade secret, or other proprietary rights of any third party.

(d) If, under the Contract, Contractor procures any equipment, software or other Deliverable for the State (including equipment, software and other Deliverables manufactured, re-marketed or otherwise sold by Contractor under Contractor's name), then in addition to Contractor's other responsibilities with respect to the items in the Contract, Contractor will assign or otherwise transfer to the State or its designees, or afford the State the benefits of, any manufacturer's warranty for the Deliverable.

(e) The Contract signatory has the power and authority, including any necessary corporate authorizations, necessary to enter into the Contract, on behalf of Contractor.

(f) It is qualified and registered to transact business in all locations where required.

(g) Neither the Contractor nor any affiliates, nor any employee of either, has, will have, or will acquire, any contractual, financial, business, or other interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of its duties and responsibilities to the State under the Contract or otherwise create an appearance of impropriety with respect to the award or performance of this Agreement. Contractor will notify the State about the nature of the conflict or appearance of impropriety within two (2) days of learning about it.

(h) If any of the certifications, representations, or disclosures made in the Contractor's original bid response change after the Contract start date, the Contractor will report those changes immediately to DTMB-Procurement.

#### **2.122 Warranty of Merchantability**

Goods provided by Contractor under this agreement will be merchantable. All goods provided under the Contract will be of good quality within the description given by the State, will be fit for their ordinary purpose, will be adequately contained and packaged within the description given by the State, will conform to the agreed upon specifications, and will conform to the affirmations of fact made by the Contractor or on the container or label.

#### **2.123 Warranty of Fitness for a Particular Purpose**

When the Contractor has reason to know or knows any particular purpose for which the goods are required, and the State is relying on the Contractor's skill or judgment to select or furnish suitable goods, there is a warranty that the goods are fit for such purpose.

#### **2.124 Warranty of Title**

Contractor will, in providing goods to the State, convey good title in those goods, whose transfer is right and lawful. All goods provided by Contractor will be delivered free from any security interest, lien, or encumbrance of which the State, at the time of contracting, has no knowledge. Goods provided by Contractor, under the Contract, will be delivered free of any rightful claim of any third person by of infringement or the like.

#### **2.125 Equipment Warranty "RESERVED"**

#### **2.126 Equipment to be New "RESERVED"**

#### **2.127 Prohibited Products**

The State will not accept salvage, distressed, outdated, or discontinued merchandise. Shipping of such merchandise to any State agency, as a result of an order placed against the Contract, is considered default by the Contractor of the terms and conditions of the Contract and may result in cancellation of the Contract by the State. The brand and product number offered for all items will remain consistent for the term of the Contract, unless DTMB-Procurement has approved a change order pursuant to **Section 2.024**.

#### **2.128 Consequences For Breach**

In addition to any remedies available in law, if the Contractor breaches any of the warranties contained in this section, the breach may be considered as a default in the performance of a material obligation of the Contract.



## 2.130 Insurance

### 2.131 Liability Insurance

The Contractor will provide proof of the minimum levels of insurance coverage as indicated below. The insurance will protect the State from claims, which may arise out of or result from the Contractor's performance of Services under the terms of the Contract, whether the Services are performed by the Contractor, or by any Subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

The Contractor waives all rights against the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents for recovery of damages to the extent these damages are covered by the insurance policies the Contractor is required to maintain under the Contract.

All insurance coverage's provided relative to the Contract/Purchase Order are PRIMARY and NON-CONTRIBUTING to any comparable liability insurance (including self-insurances) carried by the State.

The insurance will be written for not less than any minimum coverage specified in the Contract or required by law, whichever is greater.

The insurers selected by Contractor will have an A.M. Best rating of A or better, or as otherwise approved in writing by the State, or if the ratings are no longer available, with a comparable rating from a recognized insurance rating agency. All policies of insurance required in the Contract will be issued by companies that have been approved to do business in the State. See [www.michigan.gov/deleg](http://www.michigan.gov/deleg).

Where specific limits are shown, they are the minimum acceptable limits. If Contractor's policy contains higher limits, the State will be entitled to coverage to the extent of the higher limits.

The Contractor is required to pay for and provide the type and amount of insurance checked  below:

1. Commercial General Liability with the following minimum coverage:
- \$2,000,000 General Aggregate Limit other than Products/Completed Operations
  - \$2,000,000 Products/Completed Operations Aggregate Limit
  - \$1,000,000 Personal & Advertising Injury Limit
  - \$1,000,000 Each Occurrence Limit

The Contractor will list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as ADDITIONAL INSUREDS on the Commercial General Liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

2. If a motor vehicle is used to provide services or products under the Contract, the Contractor will have vehicle liability insurance on any auto including owned, hired and non-owned vehicles used in Contractor's business for bodily injury and property damage as required by law.

The Contractor will list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as ADDITIONAL INSUREDS on the vehicle liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

3. Workers' compensation coverage will be provided according to applicable laws governing the employees and employers work activities in the State of the Contractor's domicile. If the applicable coverage is provided by a self-insurer, proof will be provided of approved self-insured authority by the jurisdiction of domicile. For employees working outside of the State of qualification, Contractor will provide appropriate certificates of insurance proving mandated coverage levels for the jurisdictions where the employees' activities occur.

Any certificates of insurance received will also provide a list of States where the coverage is applicable.

The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company. This provision will not be applicable where prohibited or limited by the laws of the jurisdiction in which the work is to be performed.



4. Employers liability insurance with the following minimum limits:
- \$100,000 each accident
  - \$100,000 each employee by disease
  - \$500,000 aggregate disease
5. Employee Fidelity, including Computer Crimes, insurance naming the State as a loss payee, providing coverage for direct loss to the State and any legal liability of the State arising out of or related to fraudulent or dishonest acts committed by the employees of Contractor or its Subcontractors, acting alone or in collusion with others, in a minimum amount of \$1,000,000.00 with a maximum deductible of \$50,000.00.
6. Umbrella or Excess Liability Insurance in a minimum amount of ten million dollars (\$10,000,000.00), which will apply, at a minimum, to the insurance required in Subsection 1 (Commercial General Liability) above.
7. Professional Liability (Errors and Omissions) Insurance with the following minimum coverage: \$5,000,000.00 each occurrence and \$5,000,000.00 annual aggregate.
8. Fire and Personal Property Insurance covering against any loss or damage to the office space used by Contractor for any reason under the Contract, and the equipment, software and other contents of the office space, including without limitation, those contents used by Contractor to provide the Services to the State, up to its replacement value, where the office space and its contents are under the care, custody and control of Contractor. The policy will cover all risks of direct physical loss or damage, including without limitation, flood and earthquake coverage and coverage for computer hardware and software. The State will be endorsed on the policy as a loss payee as its interests appear.
9. Cyber Liability Insurance with the following minimum limits:
- \$1,000,000 Each Occurrence
  - \$1,000,000 Annual Aggregate

**Additional Requirements:**

Insurance should cover (a) unauthorized acquisition, access, use, physical taking, identity theft, mysterious disappearance, release, distribution or disclosures of personal and corporate information; (b) Transmitting or receiving malicious code via the insured's computer system; (c) Denial of service attacks or the inability to access websites or computer systems.

**2.132 Subcontractor Insurance Coverage**

Except where the State has approved in writing a Contractor subcontract with other insurance provisions, Contractor will require all of its Subcontractors under the Contract to purchase and maintain the insurance coverage as described in this Section for the Contractor in connection with the performance of work by those Subcontractors. Alternatively, Contractor may include any Subcontractors under Contractor's insurance on the coverage required in this Section. Subcontractor will fully comply with the insurance coverage required in this Section. Failure of Subcontractor to comply with insurance requirements does not limit Contractor's liability or responsibility.

**2.133 Certificates of Insurance and Other Requirements**

Contractor will furnish to DTMB-Procurement, certificate(s) of insurance verifying insurance coverage or providing satisfactory evidence of self-insurance as required in this Section (the "Certificates"). The Certificate will be on the standard "accord" form or equivalent. **THE CONTRACT OR PURCHASE ORDER NO. MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING.** All Certificate(s) are to be prepared and submitted by the Insurance Provider. All Certificate(s) will contain a provision indicating that coverages afforded under the policies **MUST NOT BE CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED** without 30 days prior written notice, except for 10 days for non-payment of premium, having been given to the Director of Procurement, DTMB. The notice will include the Contract or Purchase Order number affected. Before the Contract is signed, and not less than 20 days before the insurance expiration date every year thereafter, the Contractor will provide evidence that the State and its agents, officers and employees are listed as additional insureds under each commercial general liability and commercial automobile liability policy. In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.



The Contractor will maintain all required insurance coverage throughout the term of the Contract and any extensions and, in the case of claims-made Commercial General Liability policies, will secure tail coverage for at least three (3) years following the expiration or termination for any reason of the Contract. The minimum limits of coverage specified above are not intended, and will not be construed; to limit any liability or indemnity of Contractor under the Contract to any indemnified party or other persons. Contractor is responsible for all deductibles with regard to the insurance. If the Contractor fails to pay any premium for required insurance as specified in the Contract, or if any insurer cancels or significantly reduces any required insurance as specified in the Contract without the State's written consent, then the State may, after the State has given the Contractor at least 30 days written notice, pay the premium or procure similar insurance coverage from another company or companies. The State may deduct any part of the cost from any payment due the Contractor, or the Contractor will pay that cost upon demand by the State.

## **2.140 Indemnification**

### **2.141 General Indemnification**

To the extent permitted by law, the Contractor will indemnify, defend and hold harmless the State from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties), accruing or resulting to any person, firm or corporation that may be injured or damaged by the Contractor in the performance of the Contract and that are attributable to the negligence or tortious acts of the Contractor or any of its Subcontractors, or by anyone else for whose acts any of them may be liable.

### **2.142 Code Indemnification**

To the extent permitted by law, the Contractor will indemnify, defend, and hold harmless the State from any claim, loss, or expense arising from Contractor's breach of the No Surreptitious Code Warranty.

### **2.143 Employee Indemnification**

In any claims against the State of Michigan, its departments, divisions, agencies, sections, commissions, officers, employees and agents, by any employee of the Contractor or any of its Subcontractors, the indemnification obligation under the Contract will not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Contractor or any of its Subcontractors under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.

### **2.144 Patent/Copyright Infringement Indemnification**

To the extent permitted by law, the Contractor will indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that the action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its Subcontractors, or the operation of the equipment, software, commodity or service, or the use or reproduction of any documentation provided with the equipment, software, commodity or service infringes any United States patent, copyright, trademark or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or service, or its operation, become or in the State's or Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor will at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if the option is not reasonably available to the Contractor, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if the option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Notwithstanding the foregoing, the Contractor has no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any claim based upon (i) equipment developed based on written specifications of the State; (ii) use of the equipment in a configuration other than implemented or approved in writing by the Contractor, including, but not limited to, any modification of the equipment by the State; or (iii) the combination, operation, or use of the equipment with equipment or software not supplied by the Contractor under the Contract.



### **2.145 Continuation of Indemnification Obligations**

The Contractor's duty to indemnify under this Section continues in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred before expiration or cancellation.

### **2.146 Indemnification Procedures**

The procedures set forth below will apply to all indemnity obligations under the Contract.

(a) After the State receives notice of the action or proceeding involving a claim for which it will seek indemnification, the State will promptly notify Contractor of the claim in writing and take or assist Contractor in taking, as the case may be, any reasonable action to avoid the imposition of a default judgment against Contractor. No failure to notify the Contractor relieves the Contractor of its indemnification obligations except to the extent that the Contractor can prove damages attributable to the failure. Within 10 days following receipt of written notice from the State relating to any claim, the Contractor will notify the State in writing whether Contractor agrees to assume control of the defense and settlement of that claim (a "Notice of Election"). After notifying Contractor of a claim and before the State receiving Contractor's Notice of Election, the State is entitled to defend against the claim, at the Contractor's expense, and the Contractor will be responsible for any reasonable costs incurred by the State in defending against the claim during that period.

(b) If Contractor delivers a Notice of Election relating to any claim: (i) the State is entitled to participate in the defense of the claim and to employ counsel at its own expense to assist in the handling of the claim and to monitor and advise the State about the status and progress of the defense; (ii) the Contractor will, at the request of the State, demonstrate to the reasonable satisfaction of the State, the Contractor's financial ability to carry out its defense and indemnity obligations under the Contract; (iii) the Contractor will periodically advise the State about the status and progress of the defense and will obtain the prior written approval of the State before entering into any settlement of the claim or ceasing to defend against the claim and (iv) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State has the right, at its own expense, to control the defense of that portion of the claim involving the principles of Michigan governmental or public law. But the State may retain control of the defense and settlement of a claim by notifying the Contractor in writing within 10 days after the State's receipt of Contractor's information requested by the State under clause (ii) of this paragraph if the State determines that the Contractor has failed to demonstrate to the reasonable satisfaction of the State the Contractor's financial ability to carry out its defense and indemnity obligations under this Section. Any litigation activity on behalf of the State, or any of its subdivisions under this Section, will be coordinated with the Department of Attorney General. In the event the insurer's attorney represents the State under this Section, the insurer's attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.

(c) If Contractor does not deliver a Notice of Election relating to any claim of which it is notified by the State as provided above, the State may defend the claim in the manner as it may deem appropriate, at the cost and expense of Contractor. If it is determined that the claim was one against which Contractor was required to indemnify the State, upon request of the State, Contractor will promptly reimburse the State for all the reasonable costs and expenses.

## **2.150 Termination/Cancellation**

### **2.151 Notice and Right to Cure**

If the Contractor breaches the Contract, and the State, in its sole discretion, determines that the breach is curable, then the State will provide the Contractor with written notice of the breach and a time period (not less than 30 days) to cure the Breach. The notice of breach and opportunity to cure is inapplicable for successive or repeated breaches or if the State determines in its sole discretion that the breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage, or destruction of any real or tangible personal property.

### **2.152 Termination for Cause**

(a) The State may terminate the Contract, for cause, by notifying the Contractor in writing, if the Contractor (i) breaches any of its material duties or obligations under the Contract (including a Chronic Failure to meet any particular SLA), or (ii) fails to cure a breach within the time period specified in the written notice of breach provided by the State



(b) If the Contract is terminated for cause, the Contractor will pay all costs incurred by the State in terminating the Contract, including but not limited to, State administrative costs, reasonable attorneys' fees and court costs, and any reasonable additional costs the State may incur to procure the Services/Deliverables required by the Contract from other sources. Re-procurement costs are not consequential, indirect, or incidental damages, and cannot be excluded by any other terms otherwise included in the Contract, provided the costs are not in excess of 50% more than the prices for the Service/Deliverables provided under the Contract.

(c) If the State chooses to partially terminate the Contract for cause, charges payable under the Contract will be equitably adjusted to reflect those Services/Deliverables that are terminated and the State will pay for all Services/Deliverables for which Final Acceptance has been granted provided up to the termination date. Services and related provisions of the Contract that are terminated for cause will cease on the effective date of the termination.

(d) If the State terminates the Contract for cause under this Section, and it is determined, for any reason, that Contractor was not in breach of contract under the provisions of this section, that termination for cause will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to that otherwise provided in the Contract for a termination for convenience.

### **2.153 Termination for Convenience**

The State may terminate the Contract for its convenience, in whole or part, if the State determines that a termination is in the State's best interest. Reasons for the termination will be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the Services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Services no longer practical or feasible, (c) unacceptable prices for Additional Services or New Work requested by the State, or (d) falsification or misrepresentation, by inclusion or non-inclusion, of information material to a response to any Contract issued by the State. The State may terminate the Contract for its convenience, in whole or in part, by giving Contractor written notice at least 30 days before the date of termination. If the State chooses to terminate the Contract in part, the charges payable under the Contract will be equitably adjusted to reflect those Services/Deliverables that are terminated. Services and related provisions of the Contract that are terminated for cause will cease on the effective date of the termination.

### **2.154 Termination for Non-Appropriation**

(a) Contractor acknowledges that, if the Contract extends for several fiscal years, continuation of the Contract is subject to appropriation or availability of funds for the Contract. If funds to enable the State to effect continued payment under the Contract are not appropriated or otherwise made available, the State will terminate the Contract and all affected Statements of Work, in whole or in part, at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The State will give Contractor at least 30 days advance written notice of termination for non-appropriation or unavailability (or the time as is available if the State receives notice of the final decision less than 30 days before the funding cutoff).

(b) If funding for the Contract is reduced by law, or funds to pay Contractor for the agreed-to level of the Services or production of Deliverables to be provided by Contractor are not appropriated or otherwise unavailable, the State may, upon 30 days written notice to Contractor, reduce the level of the Services or the change the production of Deliverables in the manner and for the periods of time as the State may elect. The charges payable under the Contract will be equitably adjusted to reflect any equipment, services, or commodities not provided by reason of the reduction.

(c) If the State terminates the Contract, eliminates certain Deliverables, or reduces the level of Services to be provided by Contractor under this Section, the State will pay Contractor for all Work-in-Process performed through the effective date of the termination or reduction in level, as the case may be and as determined by the State, to the extent funds are available. This Section will not preclude Contractor from reducing or stopping Services/Deliverables or raising against the State in a court of competent jurisdiction, any claim for a shortfall in payment for Services performed or Deliverables finally accepted before the effective date of termination.

### **2.155 Termination for Criminal Conviction**

The State may terminate the Contract immediately and without further liability or penalty in the event Contractor, an officer of Contractor, or an owner of a 25% or greater share of Contractor is convicted of a criminal offense related to a State, public or private Contract, or subcontract.



### **2.156 Termination for Approvals Rescinded**

The State may terminate the Contract if any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services under Constitution 1963, Article 11, § 5, and Civil Service Rule 7-1. In that case, the State will pay the Contractor for only the work completed to that point under the Contract. Termination may be in whole or in part and may be immediate as of the date of the written notice to Contractor or may be effective as of the date Stated in the written notice.

### **2.157 Rights and Obligations upon Termination**

(a) If the State terminates the Contract for any reason, the Contractor will (a) stop all work as specified in the notice of termination, (b) take any action that may be necessary, or that the State may direct, for preservation and protection of Deliverables or other property derived or resulting from the Contract that may be in Contractor's possession, (c) return all materials and property provided directly or indirectly to Contractor by any entity, agent or employee of the State, (d) transfer title in, and deliver to, the State, unless otherwise directed, all Deliverables intended to be transferred to the State at the termination of the Contract and which are resulting from the Contract (which will be provided to the State on an "As-Is" basis except to the extent the amounts paid by the State in respect of the items included compensation to Contractor for the provision of warranty services in respect of the materials), and (e) take any action to mitigate and limit any potential damages, or requests for Contractor adjustment or termination settlement costs, to the maximum practical extent, including terminating or limiting as otherwise applicable those subcontracts and outstanding orders for material and supplies resulting from the terminated Contract.

(b) If the State terminates the Contract before its expiration for its own convenience, the State will pay Contractor for all charges due for Services provided before the date of termination and, if applicable, as a separate item of payment under the Contract, for Work In Process, on a percentage of completion basis at the level of completion determined by the State. All completed or partially completed Deliverables prepared by Contractor under the Contract, at the option of the State, becomes the State's property, and Contractor is entitled to receive equitable fair compensation for the Deliverables. Regardless of the basis for the termination, the State is not obligated to pay, or otherwise compensate, Contractor for any lost expected future profits, costs or expenses incurred with respect to Services not actually performed for the State.

(c) Upon a good faith termination, the State may assume, at its option, any subcontracts and agreements for Services and Deliverables provided under the Contract, and may further pursue completion of the Services/Deliverables under the Contract by replacement contract or otherwise as the State may in its sole judgment deem expedient.

### **2.158 Reservation of Rights**

Any termination of the Contract or any Statement of Work issued under it by a party will be with full reservation of, and without prejudice to, any rights or remedies otherwise available to the party with respect to any claims arising before or as a result of the termination.

## **2.160 Termination by Contractor**

### **2.161 Termination by Contractor**

If the State breaches the Contract, and the Contractor in its sole discretion determines that the breach is curable, then the Contractor will provide the State with written notice of the breach and a time period (not less than 30 days) to cure the breach. The Notice of Breach and opportunity to cure is inapplicable for successive and repeated breaches.

The Contractor may terminate the Contract if the State (i) materially breaches its obligation to pay the Contractor undisputed amounts due and owing under the Contract, (ii) breaches its other obligations under the Contract to an extent that makes it impossible or commercially impractical for the Contractor to perform the Services, or (iii) does not cure the breach within the time period specified in a written notice of breach. But the Contractor will discharge its obligations under **Section 2.190** before it terminates the Contract.

## **2.170 Transition Responsibilities**

### **2.171 Contractor Transition Responsibilities**

If the State terminates the Contract, for convenience or cause, or if the Contract is otherwise dissolved, voided, rescinded, nullified, expires or rendered unenforceable, the Contractor agrees to comply with direction provided by the State to assist in the orderly transition of equipment, services, software, leases, etc. to the State or a third party designated by the State.



If the Contract expires or terminates, the Contractor agrees to make all reasonable efforts to effect an orderly transition of services within a reasonable period of time that in no event will exceed 6 Months. These efforts will include, but are not limited to, those listed in **Sections 2.171, 2.172, 2.173, 2.174, and 2.175.**

#### **2.172 Contractor Personnel Transition**

The Contractor will work with the State, or a specified third party, to develop a transition plan setting forth the specific tasks and schedule to be accomplished by the parties to effect an orderly transition. The Contractor will allow as many personnel as practicable to remain on the job to help the State, or a specified third party, maintain the continuity and consistency of the services required by the Contract. In addition, during or following the transition period, in the event the State requires the Services of the Contractor's Subcontractors or vendors, as necessary to meet its needs, Contractor agrees to reasonably, and with good-faith, work with the State to use the Services of Contractor's Subcontractors or vendors. Contractor will notify all of Contractor's Subcontractors of procedures to be followed during transition.

#### **2.173 Contractor Information Transition**

The Contractor agrees to provide reasonable detailed specifications for all Services/Deliverables needed by the State, or specified third party, to properly provide the Services/Deliverables required under the Contract. The Contractor will provide the State with asset management data generated from the inception of the Contract through the date on which the Contractor is terminated in a comma-delineated format unless otherwise requested by the State. The Contractor will deliver to the State any remaining owed reports and documentation still in Contractor's possession subject to appropriate payment by the State.

#### **2.174 Contractor Software Transition**

The Contractor will reasonably assist the State in the acquisition of any Contractor software required to perform the Services/use the Deliverables under the Contract. This will include any documentation being used by the Contractor to perform the Services under the Contract. If the State transfers any software licenses to the Contractor, those licenses will, upon expiration of the Contract, transfer back to the State at their current revision level. Upon notification by the State, Contractor may be required to freeze all non-critical changes to Deliverables/Services.

#### **2.175 Transition Payments**

If the transition results from a termination for any reason, reimbursement will be governed by the termination provisions of the Contract. If the transition results from expiration, the Contractor will be reimbursed for all reasonable transition costs (i.e. costs incurred within the agreed period after contract expiration that result from transition operations) at the rates agreed upon by the State. The Contractor will prepare an accurate accounting from which the State and Contractor may reconcile all outstanding accounts.

#### **2.176 State Transition Responsibilities**

In the event that the Contract is terminated, dissolved, voided, rescinded, nullified, or otherwise rendered unenforceable, the State agrees to perform the following obligations, and any others upon which the State and the Contractor agree:

- (a) Reconciling all accounts between the State and the Contractor;
- (b) Completing any pending post-project reviews.

### **2.180 Stop Work**

#### **2.181 Stop Work Orders**

The State may, at any time, by written stop work order to Contractor, require that Contractor stop all, or any part, of the work called for by the Contract for a period of up to 90 calendar days after the stop work order is delivered to Contractor, and for any further period to which the parties may agree. The stop work order will be identified as a stop work order and will indicate that it is issued under this **Section 2.180**. Upon receipt of the stop work order, Contractor will immediately comply with its terms and take all reasonable steps to minimize incurring costs allocable to the work covered by the stop work order during the period of work stoppage. Within the period of the stop work order, the State will either: (a) cancel the stop work order; or (b) terminate the work covered by the stop work order as provided in **Section 2.150**.

#### **2.182 Cancellation or Expiration of Stop Work Order**

The Contractor will resume work if the State cancels a Stop Work Order or if it expires. The parties will agree upon an equitable adjustment in the delivery schedule, the Contract price, or both, and the Contract will be modified, in writing, accordingly, if:



(a) the stop work order results in an increase in the time required for, or in Contractor's costs properly allocable to, the performance of any part of the Contract; and (b) Contractor asserts its right to an equitable adjustment within 30 calendar days after the end of the period of work stoppage; provided that, if the State decides the facts justify the action, the State may receive and act upon a Contractor proposal submitted at any time before final payment under the Contract. Any adjustment will conform to the requirements of **Section 2.024**.

### **2.183 Allowance of Contractor Costs**

If the stop work order is not canceled and the work covered by the stop work order is terminated for reasons other than material breach, the termination will be deemed to be a termination for convenience under **Section 2.150**, and the State will pay reasonable costs resulting from the stop work order in arriving at the termination settlement. For the avoidance of doubt, the State is not liable to Contractor for loss of profits because of a stop work order issued under this **Section 2.180**.

## **2.190 Dispute Resolution**

### **2.191 In General**

Any claim, counterclaim, or dispute between the State and Contractor arising out of or relating to the Contract or any Statement of Work will be resolved as follows. For all Contractor claims seeking an increase in the amounts payable to Contractor under the Contract, or the time for Contractor's performance, Contractor will submit a letter, together with all data supporting the claims, executed by Contractor's Contract Administrator or the Contract Administrator's designee certifying that (a) the claim is made in good faith, (b) the amount claimed accurately reflects the adjustments in the amounts payable to Contractor or the time for Contractor's performance for which Contractor believes the State is liable and covers all costs of every type to which Contractor is entitled from the occurrence of the claimed event, and (c) the claim and the supporting data are current and complete to Contractor's best knowledge and belief.

### **2.192 Informal Dispute Resolution**

(a) All disputes between the parties will be resolved under the Contract Management procedures in the Contract. If the parties are unable to resolve any disputes after compliance with the processes, the parties will meet with the Director of Procurement, DTMB, or designee, for the purpose of attempting to resolve the dispute without the need for formal legal proceedings, as follows:

(i) The representatives of Contractor and the State will meet as often as the parties reasonably deem necessary to gather and furnish to each other all information with respect to the matter in issue, which the parties believe to be appropriate and germane in connection with its resolution. The representatives will discuss the problem and negotiate in good faith in an effort to resolve the dispute without the necessity of any formal proceeding.

(ii) During the course of negotiations, all reasonable requests made by one (1) party to another for non-privileged information reasonably related to the Contract will be honored in order that each of the parties may be fully advised of the other's position.

(iii) The specific format for the discussions will be left to the discretion of the designated State and Contractor representatives, but may include the preparation of agreed upon Statements of fact or written Statements of position.

(iv) Following the completion of this process within 60 calendar days, the Director of Procurement, DTMB, or designee, will issue a written opinion regarding the issue(s) in dispute within 30 calendar days. The opinion regarding the dispute will be considered the State's final action and the exhaustion of administrative remedies.

(b) This Section will not be construed to prevent either party from instituting, and a party is authorized to institute, formal proceedings earlier to avoid the expiration of any applicable limitations period, to preserve a superior position with respect to other creditors, or under **Section 2.193**.

(c) The State will not mediate disputes between the Contractor and any other entity, except State agencies, concerning responsibility for performance of work under the Contract.

### **2.193 Injunctive Relief**

The only circumstance in which disputes between the State and Contractor will not be subject to the provisions of **Section 2.192** is where a party makes a good faith determination that a breach of the terms of the Contract by the other party is the that the damages to the party resulting from the breach will be so immediate, so large or severe and so incapable of adequate redress after the fact that a temporary restraining order or other immediate injunctive relief is the only adequate remedy.



### **2.194 Continued Performance**

Each party agrees to continue performing its obligations under the Contract while a dispute is being resolved except to the extent the issue in dispute precludes performance (dispute over payment will not be deemed to preclude performance) and without limiting either party's right to terminate the Contract as provided in **Section 2.150**, as the case may be.

## **2.200 Federal and State Contract Requirements**

### **2.201 Nondiscrimination**

In the performance of the Contract, Contractor agrees not to discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, or physical or mental disability. Contractor further agrees that every subcontract entered into for the performance of the Contract or any purchase order resulting from the Contract will contain a provision requiring non-discrimination in employment, as specified here, binding upon each Subcontractor. This covenant is required under the Elliot Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, et seq., and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, et seq., and any breach of this provision may be regarded as a material breach of the Contract.

### **2.202 Unfair Labor Practices**

Under 1980 PA 278, MCL 423.321, et seq., the State will not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled under Section 2 of the Act. This information is compiled by the United States National Labor Relations Board. A Contractor of the State, in relation to the Contract, will not enter into a contract with a Subcontractor, manufacturer, or supplier whose name appears in this register. Under Section 4 of 1980 PA 278, MCL 423.324, the State may void any Contract if, after award of the Contract, the name of Contractor as an employer or the name of the Subcontractor, manufacturer or supplier of Contractor appears in the register.

### **2.203 Workplace Safety and Discriminatory Harassment**

In performing Services for the State, the Contractor will comply with the Department of Civil Services Rule 2-20 regarding Workplace Safety and Rule 1-8.3 regarding Discriminatory Harassment. In addition, the Contractor will comply with Civil Service regulations and any applicable agency rules provided to the Contractor. For Civil Service Rules, see <http://www.mi.gov/mdcs/0,1607,7-147-6877---,00.html>.

### **2.204 Prevailing Wage**

The rates of wages and fringe benefits to be paid each class of individuals employed by the Contractor, its subcontractors, their Subcontractors, and all persons involved with the performance of the Contract in privity of contract with the Contractor will not be less than the wage rates and fringe benefits established by the Michigan Department of Licensing and Regulatory Affairs, Wage and Hour Division, schedule of occupational classification and wage rates and fringe benefits for the local where the work is to be performed. The term Contractor will include all general Contractors, prime Contractors, project managers, trade Contractors, and all of their Contractors or subcontractors and persons in privity of contract with them.

The Contractor, its Subcontractors, their subcontractors, and all persons involved with the performance of the Contract in privity of contract with the Contractor will keep posted on the work site, in a conspicuous place, a copy of all wage rates and fringe benefits as prescribed in the contract. You will also post, in a conspicuous place, the address and telephone number of the Michigan Department of Licensing and Regulatory Affairs, the office responsible for enforcement of the wage rates and fringe benefits. The Contractor will keep an accurate record showing the name and occupation of the actual wage and benefits paid to each individual employed in connection with the Contract. This record will be available to the State upon request for reasonable inspection.

If any trade is omitted from the list of wage rates and fringe benefits to be paid to each class of individuals by the Contractor, it is understood that the trades omitted will also be paid not less than the wage rate and fringe benefits prevailing in the local where the work is to be performed.



## **2.210 Governing Law**

### **2.211 Governing Law**

The Contract will in all respects be governed by, and construed according to, the substantive laws of the State of Michigan without regard to any Michigan choice of law rules that would apply the substantive law of any other jurisdiction to the extent not inconsistent with, or pre-empted by Federal law.

### **2.212 Compliance with Laws**

Contractor will comply with all applicable State, Federal and local laws and ordinances in providing the Services/Deliverables.

### **2.213 Jurisdiction**

Any dispute arising from the Contract will be resolved in the State of Michigan. With respect to any claim between the parties, Contractor consents to venue in Ingham County, Michigan, and irrevocably waives any objections it may have to the jurisdiction on the grounds of lack of personal jurisdiction of the court or the laying of venue of the court or on the basis of forum non conveniens or otherwise. Contractor agrees to appoint agents in the State of Michigan to receive service of process.

## **2.220 Limitation of Liability**

### **2.221 Limitation of Liability**

Neither the Contractor nor the State is liable to each other, regardless of the form of action, for consequential, incidental, indirect, or special damages. This limitation of liability does not apply to claims for infringement of United States patent, copyright, trademark or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of the Contract calling for liquidated damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on the Contract.

## **2.230 Disclosure Responsibilities**

### **2.231 Disclosure of Litigation**

(a) Disclosure. Contractor will disclose any material criminal litigation, investigations or proceedings involving the Contractor (and each Subcontractor) or any of its officers or directors or any litigation, investigations or proceedings under the Sarbanes-Oxley Act. In addition, each Contractor (and each Subcontractor) will notify the State of any material civil litigation, arbitration or proceeding which arises during the term of the Contract and extensions, to which Contractor (or, to the extent Contractor is aware, any Subcontractor) is a party, and which involves: (i) disputes that might reasonably be expected to adversely affect the viability or financial stability of Contractor or any Subcontractor; or (ii) a claim or written allegation of fraud against Contractor or, to the extent Contractor is aware, any Subcontractor by a governmental or public entity arising out of their business dealings with governmental or public entities. The Contractor will disclose in writing to the Contract Administrator any litigation, investigation, arbitration or other proceeding (collectively, "Proceeding") within 30 days of its occurrence. Details of settlements which are prevented from disclosure by the terms of the settlement may be annotated. Information provided to the State from Contractor's publicly filed documents referencing its material litigation will be deemed to satisfy the requirements of this Section.

(b) Assurances. If any Proceeding disclosed to the State under this Section, or of which the State otherwise becomes aware, during the term of the Contract would cause a reasonable party to be concerned about:

- (i) the ability of Contractor (or a Subcontractor) to continue to perform the Contract according to its terms and conditions, or
- (ii) whether Contractor (or a Subcontractor) in performing Services for the State is engaged in conduct which is similar in nature to conduct alleged in the Proceeding, which conduct would constitute a breach of the Contract or a violation of Michigan law, regulations or public policy, then the Contractor will provide the State all reasonable assurances requested by the State to demonstrate that:
  - (a) Contractor and its Subcontractors will be able to continue to perform the Contract and any Statements of Work according to its terms and conditions, and
  - (b) Contractor and its Subcontractors have not and will not engage in conduct in performing the Services, which is similar in nature to the conduct alleged in the Proceeding.



- (c) Contractor will make the following notifications in writing:
- (1) Within 30 days of Contractor becoming aware that a change in its ownership or officers has occurred, or is certain to occur, or a change that could result in changes in the valuation of its capitalized assets in the accounting records, Contractor will notify DTMB-Procurement.
  - (2) Contractor will also notify DTMB Procurement within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership or officers.
  - (3) Contractor will also notify DTMB Procurement within 30 days whenever changes to company affiliations occur.

### 2.232 Call Center Disclosure

Contractor and/or all Subcontractors involved in the performance of the Contract providing call or contact center services to the State will disclose the location of its call or contact center services to inbound callers. Failure to disclose this information is a material breach of the Contract.

### 2.233 Bankruptcy

The State may, without prejudice to any other right or remedy, terminate the Contract, in whole or in part, and, at its option, may take possession of the "Work in Process" and finish the Works in Process by whatever appropriate method the State may deem expedient if:

- (a) the Contractor files for protection under the bankruptcy laws;
- (b) an involuntary petition is filed against the Contractor and not removed within 30 days;
- (c) the Contractor becomes insolvent or if a receiver is appointed due to the Contractor's insolvency;
- (d) the Contractor makes a general assignment for the benefit of creditors; or
- (e) the Contractor or its affiliates are unable to provide reasonable assurances that the Contractor or its affiliates can deliver the services under the Contract.

Contractor will fix appropriate notices or labels on the Work in Process to indicate ownership by the State. To the extent reasonably possible, materials and Work in Process will be stored separately from other stock and marked conspicuously with labels indicating ownership by the State.

## 2.240 Performance

### 2.241 Time of Performance

(a) Contractor will use commercially reasonable efforts to provide the resources necessary to complete all Services and Deliverables according to the time schedules contained in the Statements of Work and other Exhibits governing the work, and with professional quality.

(b) Without limiting the generality of **Section 2.241(a)**, Contractor will notify the State in a timely manner upon becoming aware of any circumstances that may reasonably be expected to jeopardize the timely and successful completion of any Deliverables/Services on the scheduled due dates in the latest State-approved delivery schedule and will inform the State of the projected actual delivery date.

(c) If the Contractor believes that a delay in performance by the State has caused or will cause the Contractor to be unable to perform its obligations according to specified Contract time periods, the Contractor will notify the State in a timely manner and will use commercially reasonable efforts to perform its obligations according to the Contract time periods notwithstanding the State's failure. Contractor will not be in default for a delay in performance to the extent the delay is caused by the State.

### 2.242 Service Level Agreements (SLAs)

- (a) SLAs will be completed with the following operational considerations:
- (i) SLAs will not be calculated for individual Incidents where any event of Excusable Failure has been determined; Incident means any interruption in Services.
  - (ii) SLAs will not be calculated for individual Incidents where loss of service is planned and where the State has received prior notification or coordination.
  - (iii) SLAs will not apply if the applicable Incident could have been prevented through planning proposed by Contractor and not implemented at the request of the State. To invoke this consideration, complete documentation relevant to the denied planning proposal will be presented to substantiate the proposal.



(iv) Time period measurements will be based on the time Incidents are received by the Contractor and the time that the State receives notification of resolution based on 24x7x365 time period, except that the time period measurement will be suspended based on the following:

1. Time period(s) will not apply where Contractor does not have access to a physical State Location and where access to the State Location is necessary for problem identification and resolution.
2. Time period(s) will not apply where Contractor needs to obtain timely and accurate information or appropriate feedback and is unable to obtain timely and accurate information or appropriate feedback from the State.

(b) Chronic Failure for any Service(s) is defined as three unscheduled outage(s) or interruption(s) on any individual Service for the same reason or cause or if the same reason or cause was reasonably discoverable in the first instance over a rolling 30-day period. Chronic Failure will result in the State's option to terminate the effected individual Service(s) and procure them from a different vendor for the chronic location(s) with Contractor to pay the difference in charges for up to three additional months. The termination of the Service will not affect any tiered pricing levels.

(c) Root Cause Analysis will be performed on any business critical outage(s) or outage(s) on Services when requested by the Contract Administrator. Contractor will provide its analysis within two weeks of outage(s) and provide a recommendation for resolution.

(d) All decimals will be rounded to two decimal places, with five and greater rounding up and four and less rounding down, unless otherwise specified.

### 2.243 Liquidated Damages

It is understood and agreed by the Contractor that time is of the essence in the delivery of tests, reports, and data of the content and quality specified in this RFP, its proposal document, and any resulting contract. In the event these specified tests, reports, and data are not available by the dates specified in a resulting contract, the Contractor and the State agree that if there is late or improper completion of the Work and the State does not elect to exercise its rights under **Section 2.152**, the State is entitled to collect liquidated damages in the amount of \$75,000.00 per day for each day Contractor fails to remedy the late or improper completion of the Work which includes but not limited to Reports; except if the delivery be delayed by an act, negligence, or default on the part of the State of Michigan, public enemy, war, embargo, fire, or explosion not caused by the negligence or intentional act of the Contractor or Contractor's supplier(s), or by riot, sabotage, or labor trouble that results from a cause or causes entirely beyond the control or fault of the Contractor or the Contractor's supplier(s), a reasonable extension of time as the MDE deems appropriate may be granted. Upon receipt of a written request and justification for any extension from the Contractor, the MDE may extend the time for performance of the Contract or delivery of goods therein specified, at the MDE's sole discretion, for good cause shown.

### Security Breaches

It is understood and agreed by the Contractor that security and proprietary use of test items and forms will be maintained at all times. Should a breach of security resulting from negligence on the part of the Contractor occur, the sum of **\$3,000 per compromised test item** will be deducted, not as a penalty but as liquidated damages.

It is understood and agreed by the Contractor that security of student level data will be maintained at all times. Should a breach of security resulting from negligence on the part of the Contractor occur, the sum of **\$50,000 per occurrence** will be deducted, not as a penalty but as liquidated damages.

To the extent that any late delivery or untimely performance is caused or contributed to by the acts or failures to act of the MDE or any third party outside the control of the Contractor, liquidated damages shall not be assessed.

### Service Interruptions

A service interruption is defined as a failure on the part of the selected Contractor to provide access for students to log in and/or begin taking a test available through Contractor's online test delivery system during regularly scheduled school hours within established testing windows, or as the failure on the part of the selected vendor to provide access for LEA/school personnel to perform administrative functions of the CAT system at any time. The selected Contractor will not be held liable for service interruptions due to issues caused or contributed to by any acts or omissions of a school or a third party, including but not limited to an school's technology infrastructure or a school's lack of implementation of provided procedures for online.



For each service interruption, which prevents students from taking tests for more than 10 minutes, up to 60 minutes, the MDE may assess liquidated damages of **\$1,000/hour per school affected**. Total liquidated damages for service interruptions to students on any given day between 0800 EST/EDT and 1600 EST/EDT will not exceed \$75,000/ per District.

Liquidated damages will be assessed for each service interruption that prevents school or MDE personnel from accessing administrative functions for more than two (2) hours (between 0700 EST/EDT and 2000 EST/EDT) from the months of August through June at a rate of \$5,000 for each full interrupted hour, inclusive.

#### **2.244 Excusable Failure**

Neither party will be liable for any default, damage, or delay in the performance of its obligations under the Contract to the extent the default, damage or delay is caused by government regulations or requirements (executive, legislative, judicial, military, or otherwise), power failure, lightning, earthquake, war, water or other forces of nature or acts of God, delays or failures of transportation, equipment shortages, suppliers' failures, or acts or omissions of common carriers, fire; riots, civil disorders; strikes or other labor disputes, embargoes; injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of a party; provided the non-performing party and its Subcontractors are without fault in causing the default or delay, and the default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means, including disaster recovery plans.

If a party does not perform its contractual obligations for any of the reasons listed above, the non-performing party will be excused from any further performance of its affected obligation(s) for as long as the circumstances prevail. But the party will use commercially reasonable efforts to recommence performance whenever and to whatever extent possible without delay. A party will promptly notify the other party in writing immediately after the excusable failure occurs, and also when it abates or ends.

If any of the above-enumerated circumstances substantially prevent, hinder, or delay the Contractor's performance of the Services/provision of Deliverables for more than 10 Business Days, and the State determines that performance is not likely to be resumed within a period of time that is satisfactory to the State in its reasonable discretion, then at the State's option: (a) the State may procure the affected Services/Deliverables from an alternate source, and the State is not be liable for payment for the unperformed Services/ Deliverables not provided under the Contract for so long as the delay in performance continues; (b) the State may terminate any portion of the Contract so affected and the charges payable will be equitably adjusted to reflect those Services/Deliverables terminated; or (c) the State may terminate the affected Statement of Work without liability to Contractor as of a date specified by the State in a written notice of termination to the Contractor, except to the extent that the State will pay for Services/Deliverables provided through the date of termination.

The Contractor will not have the right to any additional payments from the State as a result of any Excusable Failure occurrence or to payments for Services not rendered/Deliverables not provided as a result of the Excusable Failure condition. Defaults or delays in performance by Contractor which are caused by acts or omissions of its Subcontractors will not relieve Contractor of its obligations under the Contract except to the extent that a Subcontractor is itself subject to an Excusable Failure condition described above and Contractor cannot reasonably circumvent the effect of the Subcontractor's default or delay in performance through the use of alternate sources, workaround plans or other means.

#### **2.250 Approval of Deliverables**

##### **2.251 Delivery Responsibilities**

Unless otherwise specified by the State within an individual order, the following will be applicable to all orders issued under the Contract.

(a) Shipment responsibilities - Services performed/Deliverables provided under the Contract will be delivered "F.O.B. Destination, within Government Premises." The Contractor will have complete responsibility for providing all Services/Deliverables to all site(s) unless otherwise stated. Actual delivery dates will be specified on the individual purchase order.

(b) Delivery locations - Services will be performed/Deliverables will be provided at every State of Michigan location within Michigan unless otherwise Stated in the SOW. Specific locations will be provided by the State or upon issuance of individual purchase orders.



(c) **Damage Disputes** - At the time of delivery to State Locations, the State will examine all packages. The quantity of packages delivered will be recorded and any obvious visible or suspected damage will be noted at time of delivery using the shipper's delivery document(s) and appropriate procedures to record the damage. Where there is no obvious or suspected damage, all deliveries to a State Location will be opened by the State and the contents inspected for possible internal damage not visible externally within 14 days of receipt. Any damage will be reported to the Contractor within five days of inspection

### **2.252 Delivery of Deliverables**

Where applicable, the Statements of Work/POs contain lists of the Deliverables to be prepared and delivered by Contractor including, for each Deliverable, the scheduled delivery date and a designation of whether the Deliverable is a document ("Written Deliverable"), a good ("Physical Deliverable") or a Service. All Deliverables will be completed and delivered for State review and written approval and, where applicable, installed according to the State-approved delivery schedule and any other applicable terms and conditions of the Contract.

### **2.253 Testing**

(a) Before delivering any of the above-mentioned Statement of Work Physical Deliverables or Services to the State, Contractor will first perform all required quality assurance activities to verify that the Physical Deliverable or Service is complete and conforms with its specifications listed in the applicable Statement of Work or Purchase Order. Before delivering a Physical Deliverable or Service to the State, Contractor will certify to the State that (1) it has performed the quality assurance activities, (2) it has performed any applicable testing, (3) it has corrected all material deficiencies discovered during the quality assurance activities and testing, (4) the Deliverable or Service is in a suitable State of readiness for the State's review and approval, and (5) the Deliverable/Service has all Critical Security patches/updates applied.

(b) If a Deliverable includes installation at a State Location, then Contractor will (1) perform any applicable testing, (2) correct all material deficiencies discovered during the quality assurance activities and testing, and (3) inform the State that the Deliverable is in a suitable State of readiness for the State's review and approval. To the extent that testing occurs at State Locations, the State is entitled to observe or otherwise participate in testing.

### **2.254 Approval of Deliverables, In General**

(a) All Deliverables (Physical Deliverables and Written Deliverables) and Services require formal written approval by the State, according to the following procedures. Formal approval by the State requires the State to confirm in writing that the Deliverable meets its specifications. Formal approval may include the successful completion of Testing as applicable in **Section 2.253**, to be led by the State with the support and assistance of Contractor. The approval process will be facilitated by ongoing consultation between the parties, inspection of interim and intermediate Deliverables and collaboration on key decisions.

(b) The State's obligation to comply with any State Review Period is conditioned on the timely delivery of Deliverables/Services being reviewed.

(c) Before commencement of its review or testing of a Deliverable/Service, the State may inspect the Deliverable/Service to confirm that all components of the Deliverable/Service have been delivered without material deficiencies. If the State determines that the Deliverable/Service has material deficiencies, the State may refuse delivery of the Deliverable/Service without performing any further inspection or testing of the Deliverable/Service. Otherwise, the review period will be deemed to have started on the day the State receives the Deliverable or the Service begins, and the State and Contractor agree that the Deliverable/Service is ready for use and, where applicable, certification by Contractor according to **Section 2.253**.

(d) The State will approve in writing a Deliverable/Service after confirming that it conforms to and performs according to its specifications without material deficiency. The State may, but is not be required to, conditionally approve in writing a Deliverable/Service that contains material deficiencies if the State elects to permit Contractor to rectify them post-approval. In any case, Contractor will be responsible for working diligently to correct within a reasonable time at Contractor's expense all deficiencies in the Deliverable/Service that remain outstanding at the time of State approval.

(e) If, after three (3) opportunities (the original and two (2) repeat efforts), the Contractor is unable to correct all deficiencies preventing Final Acceptance of a Deliverable/Service, the State may: (i) demand that the Contractor cure the failure and give the Contractor additional time to cure the failure at the sole expense of the Contractor; or (ii) keep the Contract in force and do, either itself or through other parties, whatever the Contractor has failed to do, and recover the difference between the cost to cure the deficiency and the contract price plus an additional sum equal to 10% of the cost to cure the deficiency to cover the State's general expenses provided the State can furnish proof of the general expenses;



or (iii) terminate the particular Statement of Work for default, either in whole or in part by notice to Contractor provided Contractor is unable to cure the breach. Notwithstanding the foregoing, the State cannot use, as a basis for exercising its termination rights under this Section, deficiencies discovered in a repeat State Review Period that could reasonably have been discovered during a prior State Review Period.

(f) The State, at any time and in its reasonable discretion, may halt the testing or approval process if the process reveals deficiencies in or problems with a Deliverable/Service in a sufficient quantity or of a sufficient severity that renders continuing the process unproductive or unworkable. If that happens, the State may stop using the Service or return the applicable Deliverable to Contractor for correction and re-delivery before resuming the testing or approval process.

#### **2.255 Process For Approval of Written Deliverables**

The State Review Period for Written Deliverables will be the number of days set forth in the applicable Statement of Work following delivery of the final version of the Deliverable (and if the Statement of Work does not State the State Review Period, it is by default five (5) Business Days for Written Deliverables of 100 pages or less and 10 Business Days for Written Deliverables of more than 100 pages). The duration of the State Review Periods will be doubled if the State has not had an opportunity to review an interim draft of the Written Deliverable before its submission to the State. The State agrees to notify Contractor in writing by the end of the State Review Period either stating that the Deliverable is approved in the form delivered by Contractor or describing any deficiencies that will be corrected before approval of the Deliverable (or at the State's election, after approval of the Deliverable). If the State notifies the Contractor about deficiencies, the Contractor will correct the described deficiencies and within 30 Business Days resubmit the Deliverable in a form that shows all revisions made to the original version delivered to the State. Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Deliverable from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Deliverable to confirm that the identified deficiencies have been corrected.

#### **2.256 Process for Approval of Services**

The State Review Period for approval of Services is governed by the applicable Statement of Work (and if the Statement of Work does not State the State Review Period, it is by default 30 Business Days for Services). The State agrees to notify the Contractor in writing by the end of the State Review Period either stating that the Service is approved in the form delivered by the Contractor or describing any deficiencies that will be corrected before approval of the Services (or at the State's election, after approval of the Service). If the State delivers to the Contractor a notice of deficiencies, the Contractor will correct the described deficiencies and within 30 Business Days resubmit the Service in a form that shows all revisions made to the original version delivered to the State. The Contractor's correction efforts will be made at no additional charge. Upon implementation of a corrected Service from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Service for conformity and that the identified deficiencies have been corrected.

#### **2.257 Process for Approval of Physical Deliverables**

The State Review Period for approval of Physical Deliverables is governed by the applicable Statement of Work (and if the Statement of Work does not State the State Review Period, it is by default 30 continuous Business Days for a Physical Deliverable). The State agrees to notify the Contractor in writing by the end of the State Review Period either stating that the Deliverable is approved in the form delivered by the Contractor or describing any deficiencies that will be corrected before approval of the Deliverable (or at the State's election, after approval of the Deliverable). If the State delivers to the Contractor a notice of deficiencies, the Contractor will correct the described deficiencies and within 30 Business Days resubmit the Deliverable in a form that shows all revisions made to the original version delivered to the State. The Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Deliverable from the Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Deliverable to confirm that the identified deficiencies have been corrected.

#### **2.258 Final Acceptance**

Unless otherwise stated in the Article 1, Statement of Work or Purchase Order, "Final Acceptance" of each Deliverable will occur when each Deliverable/Service has been approved by the State following the State Review Periods identified in **Sections 2.251-2.257**. Payment will be made for Deliverables installed and accepted. Upon acceptance of a Service, the State will pay for all Services provided during the State Review Period that conformed to the acceptance criteria.



## **2.260 Ownership**

### **2.261 Ownership of Work Product by State**

The State owns all Deliverables as they are works made for hire by the Contractor for the State. The State owns all United States and international copyrights, trademarks, patents, or other proprietary rights in the Deliverables.

### **2.262 Vesting of Rights**

With the sole exception of any preexisting licensed works identified in the SOW, the Contractor assigns, and upon creation of each Deliverable automatically assigns, to the State, ownership of all United States and international copyrights, trademarks, patents, or other proprietary rights in each and every Deliverable, whether or not registered by the Contractor, insofar as any the Deliverable, by operation of law, may not be considered work made for hire by the Contractor for the State. From time to time upon the State's request, the Contractor will confirm the assignment by execution and delivery of the assignments, confirmations of assignment, or other written instruments as the State may request. The State may obtain and hold in its own name all copyright, trademark, and patent registrations and other evidence of rights that may be available for Deliverables.

### **2.263 Rights in Data**

(a) The State is the owner of all data made available by the State to the Contractor or its agents, Subcontractors or representatives under the Contract. The Contractor will not use the State's data for any purpose other than providing the Services, nor will any part of the State's data be disclosed, sold, assigned, leased or otherwise disposed of to the general public or to specific third parties or commercially exploited by or on behalf of the Contractor. No employees of the Contractor, other than those on a strictly need-to-know basis, have access to the State's data. Contractor will not possess or assert any lien or other right against the State's data. Without limiting the generality of this Section, the Contractor will only use personally identifiable information as strictly necessary to provide the Services and will disclose the information only to its employees who have a strict need-to-know the information. The Contractor will comply at all times with all laws and regulations applicable to the personally identifiable information.

(b) The State is the owner of all State-specific data under the Contract. The State may use the data provided by the Contractor for any purpose. The State will not possess or assert any lien or other right against the Contractor's data. Without limiting the generality of this Section, the State may use personally identifiable information only as strictly necessary to utilize the Services and will disclose the information only to its employees who have a strict need to know the information, except as provided by law. The State will comply at all times with all laws and regulations applicable to the personally identifiable information. Other material developed and provided to the State remains the State's sole and exclusive property.

### **2.264 Ownership of Materials**

The State and the Contractor will continue to own their respective proprietary technologies developed before entering into the Contract. Any hardware bought through the Contractor by the State, and paid for by the State, will be owned by the State. Any software licensed through the Contractor and sold to the State, will be licensed directly to the State.

## **2.270 State Standards**

### **2.271 Existing Technology Standards**

The Contractor will adhere to all existing standards as described within the comprehensive listing of the State's existing technology standards at <http://www.michigan.gov/dmb/0,4568,7-150-56355-108233--,00.html>;

### **2.272 Acceptable Use Policy**

To the extent that Contractor has access to the State computer system, Contractor will comply with the State's Acceptable Use Policy, see [http://michigan.gov/cybersecurity/0,1607,7-217-34395\\_34476---,00.html](http://michigan.gov/cybersecurity/0,1607,7-217-34395_34476---,00.html). All Contractor employees will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State system. The State reserves the right to terminate Contractor's access to the State system if a violation occurs.

### **2.273 Systems Changes**

Contractor is not responsible for and not authorized to make changes to any State systems without written authorization from the Project Manager. Any changes Contractor makes to State systems with the State's approval will be done according to applicable State procedures, including security, access, and configuration management procedures.



## 2.280 Reserved

## 2.290 Environmental Provision

### 2.291 Environmental Provision

#### Hazardous Materials:

For the purposes of this Section, "Hazardous Materials" is a generic term used to describe asbestos, ACBMs, PCBs, petroleum products, construction materials including paint thinners, solvents, gasoline, oil, and any other material the manufacture, use, treatment, storage, transportation, or disposal of which is regulated by the Federal, State, or local laws governing the protection of the public health, natural resources, or the environment. This includes, but is not limited to, materials such as batteries and circuit packs, and other materials that are regulated as (1) "Hazardous Materials" under the Hazardous Materials Transportation Act, (2) "chemical hazards" under the Occupational Safety and Health Administration standards, (3) "chemical substances or mixtures" under the Toxic Substances Control Act, (4) "pesticides" under the Federal Insecticide Fungicide and Rodenticide Act, and (5) "hazardous wastes" as defined or listed under the Resource Conservation and Recovery Act.

(a) The Contractor will use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material according to all Federal, State, and local laws. The State will provide a safe and suitable environment for performance of Contractor's Work. Before the commencement of Work, the State will advise the Contractor of the presence at the work site of any Hazardous Material to the extent that the State is aware of the Hazardous Material. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor will immediately stop all affected Work, notify the State in writing about the conditions encountered, and take appropriate health and safety precautions.

(b) Upon receipt of a written notice, the State will investigate the conditions. If (a) the material is a Hazardous Material that may present a substantial danger, and (b) the Hazardous Material was not brought to the site by the Contractor, or does not result in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Materials, the State will order a suspension of Work in writing. The State will proceed to have the Hazardous Material removed or rendered harmless. In the alternative, the State will terminate the affected Work for the State's convenience.

(c) Once the Hazardous Material has been removed or rendered harmless by the State, the Contractor will resume Work as directed in writing by the State. Any determination by the Michigan Department of Community Health or the Michigan Department of Environmental Quality that the Hazardous Material has either been removed or rendered harmless is binding upon the State and Contractor for the purposes of resuming the Work. If any incident with Hazardous Material results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Work will not be counted in **Section 2.242** for a time as mutually agreed by the parties.

(d) If the Hazardous Material was brought to the site by the Contractor, or results in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Material, or from any other act or omission within the control of the Contractor, the Contractor will bear its proportionate share of the delay and costs involved in cleaning up the site and removing and rendering harmless the Hazardous Material according to Applicable Laws to the condition approved by applicable regulatory agency(ies).

Michigan has a Consumer Products Rule pertaining to labeling of certain products containing volatile organic compounds. For specific details visit [http://www.michigan.gov/deq/0,1607,7-135-3310\\_4108-173523--,00.html](http://www.michigan.gov/deq/0,1607,7-135-3310_4108-173523--,00.html)

#### Refrigeration and Air Conditioning:

The Contractor will comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to the Contract.

**Environmental Performance:**

Waste Reduction Program: Contractor will establish a program to promote cost-effective waste reduction in all operations and facilities covered by the Contract. The Contractor's programs will comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, et seq.).

**2.300 Other Provisions****2.311 Forced Labor, Convict Labor, Forced or Indentured Child Labor, or Indentured Servitude Made Materials**

Equipment, materials, or supplies, that will be furnished to the State under the Contract will not be produced in whole or in part by forced labor, convict labor, forced or indentured child labor, or indentured servitude.

"Forced or indentured child labor" means all work or service: exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or performed by any person under the age of 18 under a contract the enforcement of which can be accomplished by process or penalties.



## Appendix A: Assessment Program Descriptions

### 1. General Assessments:

#### MEAP and MEAP-Access

For over forty years, the MEAP has been used in Michigan to provide information on student achievement. The MEAP is one of the State’s two general assessments and is based on the content standards developed by Michigan educators and approved by the Michigan State Board of Education. The MEAP assessments are criterion-referenced, meaning that each student’s results are judged and reported against a set performance standard.

The MEAP is administered in the fall of each school year for students in grades 3-9. The State is considering moving the MEAP to the spring of the school year. The MEAP assesses the state’s Grade Level Content Expectations (GLCEs) in reading, writing, mathematics, science, and social studies.

MEAP-Access is an alternate assessment based on modified achievement standards. MEAP-Access is intended to bridge the gap between the MI-Access assessments and the MEAP for students with disabilities. MEAP-Access assesses students on grade level content expectations in the core content areas of Reading and Mathematics for students in grades 3 - 8, and Writing at grades 4 and 7. MEAP-Access is currently administered in the fall of each school year for students in grades 3-8. The state is also considering moving this assessment to the spring of the school year.

Students instructed in Grade Level Content Expectations (GLCEs) should take the MEAP science and social studies assessments. A student instructed in Extended Grade Level Content Expectations (EGLCEs) should take the MI-Access Functional Independence science assessment which has alternate content standards. However, since there is no alternate assessment for social studies, the student will need to take a district determined social studies assessment identified in the student’s IEP.

Students may take MEAP-Access in one content area and MEAP or MI-Access Functional Independence in the other. For example, an IEP Team may determine that a fifth-grade student should take MEAP-Access in reading and writing, but the MEAP in mathematics and science. This flexibility allows students to be placed in any combination of MEAP, MEAP-Access and MI-Access (FI only) for different content areas. Results from these assessments will be reported separately by assessment type.

See Table below to determine which content areas are assessed at which grades.

TABLE	CONTENT AREAS AND GRADES ASSESSED WITH MEAP and MEAP-Access*						
Content Areas	GRADES						
	3rd	4th	5th	6th	7th	8th	9th
<b>Reading</b>	√ *	√*	√*	√*	√*	√*	
<b>Writing</b>		√*			√*		
<b>Mathematics</b>	√*	√*	√*	√*	√*	√*	
<b>Science</b>			√			√	
<b>Social Studies</b>				√			√

\*indicates accommodated forms available with MEAP-Access



**MI-ACCESS:**

MI-Access is Michigan’s Alternate Assessment based on Alternate Achievement Standards (AA-AAS). It ensures that students with significant cognitive disabilities are appropriately included in State accountability systems and that schools and LEAs receive appropriate information regarding all students’ achievements. These students have IEP Teams that have determined that they are unable to take the general assessments—the MEAP or the MME—even with the accommodations routinely used with instruction, or the alternate assessment—MEAP-Access—based on modified achievement standards.

There are three MI-Access assessment types available to meet the needs of these students.

1. The Functional Independence (FI) assessments are designed for students who have, or function as if they have, *mild* cognitive impairment. Students taking the Functional Independence assessment are capable of meeting their own needs and living successfully in their communities without overt support from others. This assessment is presented to the student in paper-and-pencil format; however the assessment administrator transfers all student responses to the answer document.
2. The Supported Independence (SI) assessments are designed for students who have, or function as if they have, *moderate* cognitive impairment. Students taking the Supported Independence assessment can usually follow learned routines and demonstrate some independent living skills but will require some supports to remain independent. For this assessment, questions are presented as selected response items in which the student selects one of three answer choices that are presented as picture cards. The remaining items are activity-based activities where two assessment administrators are utilized to observe and score the student responses.
3. The Participation (P) assessments are designed for students who have, or function as if they have, *severe* cognitive impairment and may respond to instruction and testing in unique ways, such as blinking an eye to indicate understanding of content. Students taking the Participation assessment are often dependent on others for basic living skills. Like SI, this assessment is composed of selected-response items and activity-based activities. However, the selected-response items have two choices presented as picture cards and there is a greater number of activity-based items where two assessment administrators are utilized to observe and score the student responses.

At present, MI-Access covers English language arts (ELA—P/SI), accessing print (reading—FI), expressing ideas (writing—FI), mathematics, and science. Students in grades 3-8 are assessed in the fall of each school year and students in grade 11 are assessed in the spring. (Table below shows the grades at which each content area is assessed.) There currently are no state-level alternate assessments for social studies; therefore, IEP Teams need to determine how their students will be assessed in that content area, and document this decision in the student’s IEP. The development team is proceeding with plans to develop a social studies assessment that will be available online for the fall of 2013.

Table Content Area	Content Areas and Grades Assessed with MI-Access						
	Grade						
	3	4	5	6	7	8	11
English Language Arts (P/SI)	√	√	√	√	√	√	√
Accessing Print (FI)	√	√	√	√	√	√	√
Expressing Ideas (FI)		√			√		√
Mathematics	√	√	√	√	√	√	√
Science			√			√	√
<b>P/SI= Participation and Supported Independence FI= Functional Independence</b> <b>Students in grade 12 are not eligible to take MI-Access.</b>							

**Michigan Merit Examination (MME):**

The MME is the state's general education assessment used to assess grade 11 students (and eligible students in grade 12) on Michigan's reading, writing, mathematics, science, and social studies High School Content Expectations (HSCEs).

It is designed somewhat differently than other statewide assessments in that the MME has three distinct components administered over three days: Day 1 is the ACT® Plus Writing college entrance examination; Day 2 is the WorkKeys® job skills assessment; and Day 3 consists of the Michigan-developed assessments in mathematics, science, and social studies. Each MME component is comprised of several sections which, together, enable students to fully demonstrate their knowledge in relation to state standards.

The ACT® assessment contains five criterion-referenced tests: English, math, reading, science, and a writing section. The material covered in each of the five assessments is drawn from the domain of each content area that educators agree is important to that content area and that is prerequisite to successful performance in entry-level college courses.

The WorkKeys® component of the MME is designed to assess students' employability skills. The three areas assessed on Day 2 of the MME are Reading for Information, Applied Mathematics, and Locating Information. All of these assessments are designed to measure the degree to which students are career-ready.

The Michigan developed tests given on the final day—math, science, and social studies—are derived from the HSCEs and are designed to show how Michigan students are doing on skills and knowledge not covered by the Day 1 and Day 2 assessments.

The MME is administered in the spring of each school year. For more detailed information on the MME, go to [www.michigan.gov/mme](http://www.michigan.gov/mme).



See Table below to determine which content areas are assessed:

<b>Table</b>	<b>MME Components and Subjects</b>	
<b>Day Administered</b>	<b>Test Component</b>	<b>Content Area</b>
1	ACT® Plus Writing	English
		Mathematics
		Reading
		Science
		Writing
2	WorkKeys®	Reading for Information
		Applied Mathematics
		Locating Information
3	Michigan Assessments	Mathematics
		Science
		Social Studies

**Michigan Interim Assessment Program**

The Michigan Interim Assessment Program is funded through a State School Aid ACT® appropriation, and formally began development in winter 2012.

Interim Assessments will focus on grades K-2 in the content areas of English Language Arts and Mathematics, and grades 3 through High School in Science and Social Studies. Twelfth grade English Language Arts and Mathematics assessments will be added in a second phase of Interim Assessment development. Interim assessments for grades K-8 will be grade level based, whereas high school interim assessments will be course-based.

The Interim Assessments are optional, online assessments, which will be pre- post-test initially, with a third (mid-year) assessment to be added after full implementation. The Interim Assessments may serve as one growth measure included in district models for Educator Evaluation (beginning of the school year to end of school year, or beginning of course to end of course).

The English Language Arts (ELA) and Mathematics interim assessments are based on the Common Core State Standards, whereas the Science and Social Studies interim assessments are based on Michigan Grade Level Content Expectations (GLCEs) or High School Content Expectations (HSCEs). English Language Arts, Mathematics, and Science interim assessments are computer-adaptive tests, whereas Social Studies will be fixed-form (FF) assessments. Therefore, MDE requires that the Online system proposed by a contractor will include functionality to administer both fixed-form and computer-adaptive test items.

MDE will use the Science and Social Studies post-test interim assessments as the statewide summative assessments beginning in the 2014 – 2015 school year. In addition, these summative assessments for elementary and middle school grades will take place in the spring, and will be in grades 4 and 7 (Science), and grades 5 and 8 (Social Studies).

The interim assessment program is offered online and the assessments are optional. The table in Section 1.021 of the Work and deliverables provides a representation of the content areas, grade levels, alignment, and assessment formats for the Michigan Interim Assessment Program. Both the social studies post-tests in grades 5 and 8 as well as the science post-tests in grades 4 and 7 will be used as summative measures, starting spring 2015. A print version will be offered for schools and districts that are unable to provide the assessments online.

The High School course-based interim assessments for Science will be for the four courses of: Earth Science, Biology, Chemistry, and Physics. The High School course-based interim assessments for Social Studies will be for the four courses of: U.S. History and Geography, World History and Geography, Civics, and Economics. Since the content for high school science and social studies tests is drawn from a number of courses, it is planned that these tests will continue to be standalone summative measures.

Therefore, these high school interim assessments will only be online, and optional.



Content Area	K	1	2	3	4	5	6	7	8	High School
Reading	CCSS Online CAT	CCSS Online CAT	CCSS Online CAT	--	--	--	--	--	--	CCSS Online
Writing	CCSS Online CAT	CCSS Online CAT	CCSS Online CAT	--	--	--	--	--	--	CCSS Online
Mathematics	CCSS Online CAT	CCSS Online CAT	CCSS Online CAT	--	--	--	--	--	--	CCSS Online
Science	--	--	--	GLCE Online CAT	GLCE Online/PP CAT, FF	GLCE Online CAT	GLCE Online CAT	GLCE Online/PP CAT, FF	HSCE Online CAT	HSCE Online CAT
Social Studies	--	--	--	GLCE Online FF	GLCE Online/PP FF	GLCE Online/PP FF	GLCE, Online FF	GLCE, Online FF	GLCE, Online/PP FF	HSCE Online FF

Legend:

- CCSS—Common Core State Standards-based
- GLCE—Michigan Grade Level Content Expectation, grade level
- HSCE—Michigan High School Content Expectation, course-based
- Online—Online only
- Online/PP—Online only pre- post-test online and paper-pencil
- CAT—Computer-adaptive test
- FF—Fixed Form Test

Interim assessments in ELA, Mathematics, and Science will be computer-adaptive tests when fully operational. Computer-adaptive field testing begins in Spring 2013. All grade level and content area interim assessments will be fully operational and available statewide in Fall 2014.

**Michigan Formative Assessment**

Formative Assessment for Michigan Educators (FAME) was implemented to help educators apply innovative, informal methods to assessing how much students know about content covered at various stages of the instructional process. It is designed to support teachers in bringing effective formative-assessment practices in the classroom. It is entering its fifth year.

Michigan’s definition of Formative assessment is a planned process in which assessment-elicited evidence of students’ status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics.

There are several key features of this definition. Namely, formative assessment is

- A planned process – the formative-assessment process involves a series of carefully considered acts on the part of the teacher and student. It is the formative-assessment process, not a test or a checklist.
- Assessment-elicited evidence – teaching or learning adjustments must be based not on whim but on evidence of the students’ current level of mastery. Both teachers and students should engage in formative-assessment processes.
- Teachers’ instructional adjustments – teachers will change their current instructional activities soon after the assessment (and before they go on in the lesson or unit). The process of formative assessment occurs frequently as instruction occurs. The assessment-based feedback to teachers and students is immediate after the formative-assessment processes, to enable the educators to adjust instruction and learning opportunities as needed.
- Student learning tactics – students will also look at their achievement and change how they are learning the new material soon after the assessment. The process provides immediate feedback to help all students achieve the learning targets. The feedback provided is intended to improve students’ achievement of the intended curricular aims, not make summative judgments about students’ performance.



The activities planned for the 2012 – 2013 school year build on those from previous years informed by the results of research and program evaluations. FAME is predicated on a professional development model that uses learning teams of educators acting as volunteer coaches. Most teams typically meet monthly for one – three or more hours. Teams focus on topics and processes agreed upon by team members.

Training is provided for first year coaches along with launch events for first year teams. Support is also provided for more experienced teams. Overall program support will need to be considered in the RFP including but not limited to registration of participants for FAME activities, contract management for Center for Cognitive Coaching related events; site identification and logistics for FAME events (catering, room set up, technology, registration, name tags, sign in sheets, application for SB-CEUs for events), purchase of FAME related materials (guides for Cognitive Coaching<sup>SM</sup> and Adaptive Schools trainings).



**Appendix B: Materials Table**

**MATERIALS TABLE**

<b>Testing Materials</b>	<b>MEAP</b>	<b>MEAP-Access</b>	<b>MI-ACCESS fall</b>	<b>MI-ACCESS spring</b>	<b>MME</b>
<p><b>Test Administration Manual (TAM), guides and/or handbooks:</b> The TAM is created by MDE in collaboration with the Contractor. A TAM is created for each assessment and for every grade for MEAP and MME. Alternate Assessments (MEAP-Access and MI-ACCESS) have one TAM per assessment to cover all grades. The TAM consists of a General Section applicable to all assessments, and grade specific directions for administration of each test. TAMs are sent to schools with test materials and are also available on-line for on-demand printing.</p>	82,000 TAMs	6,800 TAMs with 3,000 Cover letters	12,000 TAMs	4,500 TAMs	12,000 TAMs + 16,000 TAMs for Testing with Accommodations
<p><b>Special Handling Envelopes:</b> A process for a school to return test documents to the Contractor for special handling. Special Handling Envelopes are also used for administrative forms and Irregularity Reports.</p>	2 per school, 1 per district, Total = 8,300	2 per school, 1 per district, Total = 2,900	2 per school, 1 per district, Total = 3,500	2 per school, 1 per district, Total = 1,200	2 per school, 1 per district, Total = 4,500
<p><b>Test Security Compliance Form:</b> This form is created by MDE, printed by the Contractor and is shipped with test materials. Every individual with access to secure material signs the document. The Form is also available on-line. It remains on-file in the District for one year.</p>	1 per 50 students per school and 8 per district, Total = 25,000	1 per 50 students per school and 8 per district, Total = 25,000	1 per 50 students per school and 8 per district, Total = 25,000	1 per 50 students per school and 8 per district, Total = 8,300	1 per 50 students per school and 8 per district, Total = 8,300
<p><b>School/Teacher Identification Sheets:</b> School/Teacher Identification Sheets N/A</p>	none	none	none	none	none
<p><b>School Header Sheets:</b> N/A</p>	none	none	none	none	none
<p><b>Class/group ID Sheets:</b> N/A</p>	none	none	none	none	none
<p><b>Test Booklet Printing Set-up:</b> MDE will provide the Contractor with Print Optimized Files (POFs) of all test booklets including Enlarged Print, Braille and Emergency Form.</p>	208 Booklets based on 5 forms and includes EP, Braille, and Emergency	3rd Grade = 3, Grades 4-8 = 19, (no Grade 9)	FI = 40, P = 12, S.I. = 12 EP = 14 Braille = 4	Fi = 8 P = 6 S.I. = 6 EP = 3 Braille = 3	10 Booklets (includes 8 and 1 EP and 1 Braille)
<p><b>Test Booklets:</b> Test Booklets must be produced for all assessments by the Contractor from POFs provided by MDE. The Contractor must create a barcoding or labeling system that distinguishes each assessment program so that, where possible, materials from more than one program can be shipped together. For MME, the Contractor must seal test booklets. Test Booklets may be provided to schools in shrink wrapped packages for quantities greater than 10; however the packages must not exceed the requested amount. Third Grade Booklets are a combined Test Booklet/Answer Document</p>	3rd Grade = 525,000 combined Booklet and Answer Document 4th through 9th Grades = 4,000,000	Grades 4-8 = 125,000	FI = 75,000 P+ S.I. = 15,000	FI = 12,800 P+SI = 4,200	158,500 Initial Forms + 10,000 Make-up forms+ 7,000 Extended Time



<p><b>Picture Cards:</b> Picture cards are used for the Participation (P) and Supported Independence (SI) Assessments in MI-ACCESS. Pictures are a set of individual pages (heavy paper) and shrink wrapped as a packet for use by Test Administrators. The pictures provide a tool for identifying responses to questions by students who may only be able to indicate the selection of a choice by eye gaze, head nod, eyeblink, etc. Students tested with Supported Independence must select their answer from three picture choices; Students with Participation must select their answer from another picture card set that includes 2 picture choices.</p>	<p>N/A</p>	<p>N/A</p>	<p>Approximately 100 pictures for P, and 186 for SI. (deduct pictures for CR items) QUANTITY: 2,100 sets for P Math, 1200 sets of P, Science, 2,700 Sets for SI Math, 1,500 sets for SI Science.</p>	<p>Approximately 100 pictures for P, and 186 for SI. (deduct pictures for CR items) QUANTITY: 600 sets, P. Math, 750 sets, Science, and 600 sets SI Math, and 750 sets SI Science</p>	<p>N/A</p>
<p><b>Answer Document Set-up:</b> MDE will provide design and layout requirements for image scannable answer documents.</p>	<p>26 (includes 3rd grade)</p>	<p>15</p>	<p>10</p>	<p>7</p>	<p>1</p>
<p><b>Answer Documents:</b> Answer documents contain fields for demographics and gridding of multiple choice items as well as several additional constructed response items for Reading and Writing. MEAP and MEAP-Access, Grade 3 requires a scannable answer document/test booklet. (MEAP-Access FI includes a blank page to allow drawing a constructed response)</p>	<p>Grades 4-9= 2,900,000</p>	<p>92,000</p>	<p>143,000</p>	<p>22,996</p>	<p>200,000</p>
<p><b>Math Rulers:</b> Three (one elementary, one secondary, and one EP/Braille) acetate math rulers are used by MI-Access in both the fall and spring administrations.</p>	<p>N/A</p>	<p>N/A</p>	<p>Grades 5-6 = 12,000 Grades 7-8 = 12,000 EP and Braille = 100</p>	<p>FI= 5,250 EP and Braille = 50</p>	<p>N/A</p>
<p><b>Reader Script booklets:</b> MDE will provide POFs of Reader's Scripts for Math, Science and Social Studies. The Contractor must provide translations of Readers Scripts into Spanish and Arabic after MDE approval of the English Master. These scripts are used for students requiring a "Read Aloud" accommodation.</p>	<p>20 POFs, 40,000 booklets</p>	<p>6 POFs, 7,100 booklets</p>	<p>N/A</p>	<p>N/A</p>	<p>750</p>
<p><b>Spanish and Arabic Reader Script - Independent Review:</b> The Contactor must provide and Independent Review of the Spanish and Arabic translations of the Reader Scripts to MDE.</p>	<p>10 Spanish Scripts, 10 Arabic Scripts</p>	<p>6 Spanish Scripts, 6 Arabic Scripts</p>	<p>N/A</p>	<p>N/A</p>	<p>1 Spanish, 1 Arabic</p>
<p><b>Emergency Form Booklets:</b> MDE will provide the Contractor with a POF of one Emergency Form for each assessment.</p>	<p>10,000</p>	<p>N/A</p>	<p>print on demand (less than 10 per year)</p>	<p>print on demand (less than 10 per year)</p>	<p>10,000</p>



<p><b>Braille Test Forms and Assessment Administrator Booklets:</b> MDE will provide the Contractor with one Braille form for each assessment. Each Braille Assessment will have its own Braille Assessment Test Administrator Booklet that contains special notes for Braille administration. The Braille Administrator Booklet POF will be provided to the Contractor. (External Proofreading of Braille booklets, Print to Braille page correspondence, Print to Braille page correspondence is required)</p>	<p>520 Braille TAMS, 520 Booklets</p>	<p>132 Braille TAMS, 132 Booklets</p>	<p>140, Braille TAMS, 140 Booklets</p>	<p>60 Braille TAMS, 45 Booklets</p>	<p>15 Braille TAMS, 15 Booklets</p>
<p><b>Compact Disk (Duplication):</b> A CD Master is created of all Readers Scripts. The MDE will approve all English Reader Scripts before they are translated into Spanish and Arabic. Reader Scripts are duplicated on Compact discs and provided to schools as accommodated material. (CDs are built from booklets for MI-Access, FI)</p>	<p>72,000</p>	<p>9,500</p>	<p>9,800</p>	<p>1,800</p>	<p>2,000</p>
<p><b>DVD (Duplication):</b> A DVD Master is created of MEAP and MME Readers Scripts. The MDE will approve all English Reader Scripts before they are translated into Spanish and Arabic. A video version in English, Spanish and Arabic for MEAP and MME (except Reading and Writing) is created from Readers Scripts. They are duplicated on DVDs and provided to schools as accommodated material.</p>	<p>12,000</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>4,200</p>
<p><b>Enlarge Print Set-Up:</b> MDE will provide the Contractor one form in POF for Enlarged Print for each assessment. MDE will approve the form prior to printing.</p>	<p>5,000 Booklets</p>	<p>1,230 Booklets</p>	<p>770 Booklets</p>	<p>105 Booklets</p>	<p>125 Booklets</p>
<p><b>Student Identification labels (pre-printed):</b> The Contractor must use the MDE secure site for the creation of pre-printed student identification overprinting on answer documents.</p>	<p>Grade 3= 250,000 Grades 4-9 = 2,340,000</p>	<p>91,400</p>	<p>143,000</p>	<p>23,000</p>	<p>225,000</p>
<p><b>Student Identification labels:</b> The Contractor must provide a process for applying student identification labels to answer documents for those students not identified in the MDE established pre-identification process.</p>	<p>10 sheets of blank labels per school for on-site printing as necessary</p>	<p>10 sheets of blank labels per school for on-site printing as necessary</p>	<p>10 sheets of blank labels per school for on-site printing as necessary</p>	<p>10 sheets of blank labels per school for on-site printing as necessary</p>	<p>10 sheets of blank labels per school for on-site printing as necessary</p>
<p><b>Return Verification Form:</b> Produced in collaboration with MDE and the Contractor. This document is used as a checklist of returned materials and is maintained in the District for one year. Copies are sent with test materials and are also available on-line.</p>	<p>One per school 4,500</p>	<p>One per school 4,500</p>	<p>One per school 4,500</p>	<p>One per school 4,500</p>	<p>One per school 3,500</p>
<p><b>Packing and Distribution of Testing Materials:</b> The Contractor must package and distribute all testing materials (including all accommodated materials) to schools.</p>	<p>Based on total of all materials and Contractor Process. Note: MI-ACCESS materials are packed by school but shipped to Districts.</p>				
<p><b>Return Instructions:</b> The Contractor must provide return instructions with all</p>	<p>Based on total of all materials and Contractor Process</p>				



shipments of test materials	
<b>Return of Materials:</b> The Contractor must arrange for the return of all test materials (including accommodated materials) to their scoring center.	Based on total of all materials and Contractor Process
<b>School Return Envelopes:</b> Must be provided by the Contractor for schools to return Administrative forms and Irregularity Reports.	Based on total of all materials and Contractor Process
<b>School Return Labels:</b> The Contractor must provide shipping labels (scorable and non-scorable) for schools to return all materials to the Contractor.	Based on total of all materials and Contractor Process



**Appendix C: Test Designs**

**MEAP Elementary and Middle School Test Designs**

**Grades 3-8 MEAP Mathematics**

The following table shows the numbers of items needed for each operational test, including embedded field test items. The operational items are for core Grade Level Content Expectations (GLCEs), in which every student will take two items for student-level reporting. Also, there will be one item for extended GLCE. The embedded field test items will be spiraled across each operational form, and will refresh the item banks for future operational testing. The expectation is that 3 out of 4 MC field-test items will survive statistical review.

<b>Total Items Needed per Test Cycle by Grade</b>	<b>Operational</b>	<b>Embedded Field Test</b>
	<b>MC</b>	<b>MC</b>
3	53	40
4	59	45
5	54	50
6	60	45
7	62	50
8	49	40

The following table shows the number of items that will appear in each operational test booklet. In order to simplify test administration and ensure accurate reporting of the core items across forms, operational items will be in the same positions on all forms.

<b>Test Length by Grade</b>	<b>Total Forms</b>	<b>Operational</b>	<b>Embedded Field Test</b>	<b>Total per Form</b>
		<b>MC</b>	<b>MC</b>	
3	5	53	8	61
4	5	59	9	68
5	5	54	10	64
6	5	60	9	69
7	5	62	10	72
8	5	49	8	57



**Grades 3-8 MEAP Reading**

The following table shows the numbers of items needed for each operational test, including embedded field test items.

Total Items Needed per Test Cycle by Grade	Operational		Embedded Field Test	
	MC	CR	MC	CR
3	30	1	220	20
4	30	1	220	20
5	30	1	220	20
6	30	1	220	20
7	30	1	220	20
8	30	1	220	20

Each operational Reading test includes an embedded field test portion consisting of either (a) one or more passages with 8 multiple choice items, or (b) a paired reading passage with 8 MC's/passage and 6 cross-text MC's.

The following table shows the number of items that will appear in each operational test booklet. In order to simplify test administration and ensure accurate reporting of the core items across forms, operational items will be in the same positions on all forms. Similarly, constructed response items will be in the same positions on all forms, either at the end of section(s) of the test or at the end of the entire test.

Test Length By Grade	Total Forms	Operational		Embedded Field Test	Total per Form
		MC	CR	MC or CR	
3	5	30	1	48	79
4	5	30	1	48	79
5	5	30	1	48	79
6	5	30	1	48	79
7	5	30	1	48	79
8	5	30	1	48	79

The operational part of each test form will consist of:

- one or more narrative passages with associated MC items
- one or more informational passages with associated MC items
- one or more cross-text pairings with associated MC items
- a written response to a pair of reading passages

The embedded field test part of each test form will consist of:

- one or more reading passages with associated MC items, a set of paired passages and their cross-text MC items, OR
- one or more CR items (with associated text or prompts)



**Grades 4 & 7 Writing**

The following table shows the numbers of items needed for each operational test, including embedded field test items.

Total Items Needed per Test Cycle by Grade	Operational		Embedded Field Test	
	MC	CR	MC	CR
4	16	3	40	5
7	16	3	40	5

Each operational Writing test includes an embedded field test portion consisting of either (a) student writing sample with associated MC and CR items, (b) a narrative writing prompt, or (c) an information writing prompt.

The following table shows the number of items that will appear in each operational test booklet. In order to simplify test administration and ensure accurate reporting of the core items across forms, operational items will be in the same positions on all forms. Similarly, constructed response items will be in the same positions on all forms, either at the end of section(s) of the test or at the end of the entire test.

Test Length By Grade	Total Forms	Operational		Embedded Field Test	Total per Form
		MC	CR	MC or CR	
4	5	16	3	9	28
7	5	16	3	9	28

**Grades 5 and 8 Science**

The following table shows the numbers of items needed for each operational test, including embedded field test items.

Test Items Needed per Test Cycle by Grade	Operational		Embedded Field Test	
	MC	Matrix OP	MC	CR
5	32	85	60	0
8	33	100	75	0

The following table shows the number of items that will appear in each operational test booklet.

Test Length by Grade	Total Forms	Operational		Embedded Field Test		Total per Form
		MC	Matrix OP	MC	CR	
5	5	32	17	12	0	61
8	5	33	20	15	0	68

**Grades 6 and 9 MEAP Social Studies**

The following table shows the numbers of items needed for each operational test, including embedded field test items.

Test Items Needed per Test Cycle by Grade	Operational		Embedded Field Test	
	MC	CR	MC	CR
6	45	0	75	0
9	44	0	110	0

The following table shows the number of items that will appear in each operational test booklet.

Test Length by Grade	Total Forms	Operational		Embedded Field Test		Total per Form
		MC	CR	MC	CR	
6	5	45	0	15	0	60
9	5	44	0	22	0	66



**MEAP-Access**

The MEAP-Access is an accommodated form of MEAP for students with disabilities in Grades 3-8 who are assessed with grade level content using modified achievement standards. The MEAP-Access assessment only covers Mathematics, Reading, and Writing. The following table shows the number of items expected to build the MEAP-Access test for a given cycle

Test Items Needed per Test Cycle by Subject	Operational		Embedded Field Test	
	MC	Matrix OP	MC	CR
Math	10	35	20	0
Reading	31	0	24	0
Writing	2 CR	0	1 CR + 5MC	0

The following table shows the number of items that will appear in each operational test booklet.

Test Length by Subject	Total Forms	Operational		Embedded Field Test		Total per Form
		MC	Matrix OP	MC	CR	
Math	2	35	0	10	0	45
Reading	2	31	17	12	0	43
Writing	2	2 CR + 10MC	0	1	5	18

**MME – Michigan Merit Exam Day 3**

The Michigan high school assessment, the MME, is a 3-day assessment with components from ACT® administered in Day 1 and Day 2. Day 3 of the assessment is a Michigan developed supplement to the ACT® to assure complete Michigan content coverage. The Day 3 component tests Math, Science, and Social Studies. Reading and Writing are covered adequately in Day 1 and 2. The following table shows the numbers of items needed for each operational test for Day 3 of the MME.

Test Items Needed per Test Cycle by Subject	Operational		Embedded Field Test	
	MC	Matrix OP	MC	CR
Math	10	36	54	0
Science	18	104	84	0
Social Studies	32	0	96	0



The following table shows the number of items that will appear in each operational test booklet.

Test Length by Subject	Total Forms	Operational		Embedded Field Test		Total per Form
		MC	Matrix OP	MC	CR	
Math	6	10	6	9	0	25
Science	6	18	17	14	0	49
Social Studies	6	32	0	16	0	48

## MI-Access Assessments

### *Mathematics Blueprint*

While specific items will vary in difficulty on specific grade-level MI-Access mathematics assessments, in general, they will be designed the same way.

- All questions/items will be provided in a real-world context using hands-on materials when possible.
- Any data, tables, charts, advertisements, and/or text that are necessary for a question will be provided as part of the item, not supplied by the teacher.
- The use of calculators will be permitted.

The MI-Access mathematics assessments will cover significant territory. Students will be assessed on five out of six strands and eleven out of fifteen content standards. Within the context of “daily living skills,” the assessment will contain questions related specifically to patterns, relationships, and skills; geometry and measurement; data analysis and statistics; number sense and numeration; numerical and algebraic operations; and analytical thinking. In the context of “community experiences,” it will contain questions related specifically to geometry, measurement, number sense, and numeration. All of the questions, directly or indirectly, will also fall under the broad context of “employment.”

### *ELA Blueprint*

While specific items will vary in difficulty on specific grade-level MI-Access ELA assessments, the general organization of the assessments will be similar. One of three overarching adult life contexts—community experience, daily living skills, or employment—will be used to frame the assessment. Then, three passages each reflecting real-world performance situations will be presented within that context. The following figure shows how the assessment might be organized for grades 4 and 5.



Quantities of items needed for MI-Access test designs are as follows in the table below.

CORE, EQUATING, AND FIELD-TEST ITEMS		
E= Equating items. These are items that are common between the current year's forms and last year's forms.		
	Core Items	Field test Items
<b>Functional Independence Accessing Print Grades 3, 5, 6, and 8</b>		
Word Recognition	20 (4 of which are equating)	4
Text Comprehension	3 passages/21 items (1 passage/7 items are equating)	1 passage/ 7 items
<b>Functional Independence Accessing Print and Expressing Ideas Grades 4, 7, and 11</b>		
Word Recognition	20 (4 of which are equating)	4
Text Comprehension	3 passages/21 items (1 passage/7 items are equating)	1 passage/ 7 items
Expressing Ideas	1 (NO equating items)	1
<b>Functional Independence Mathematics</b>		
Grades 3-5	30 (8 of which are E items)	8
Grades 6-8	35 (8 of which are E items)	10
Grade 11	40 (10 of which are E items)	10
<b>Functional Independence Science</b>		
Grade 5	35 (8 of which are equating)	8
Grade 8	40 (10 of which are equating)	10
Grade 11	45 (10 of which are equating)	10
<b>Supported Independence Science</b>		
Grade 5	17 (5 of which are equating)	5
Grade 8	17 (5 of which are equating)	5
Grade 11	17 (5 of which are equating)	5
<b>Participation Science</b>		
Grade 5	15 (5 of which are equating)	5
Grade 8	15 (5 of which are equating)	5
Grade 11	15 (5 of which are equating)	5
<b>Participation ELA Grades 3-8 and 11</b>	<b>10</b> <b>(4 of which are equating)</b>	<b>5</b>
<b>Participation Mathematics 3-8 and 11</b>	<b>10</b> <b>(4 of which are equating)</b>	<b>5</b>
<b>Supported Independence ELA Grades 3-8 and 11</b>	<b>15</b> <b>(5 of which are equating)</b>	<b>5</b>
<b>Supported Independence Mathematics Grades 3-8 and 11</b>	<b>15</b> <b>(5 of which are equating)</b>	<b>5</b>



## Appendix D: Accessibility and Accommodations

### Accessibility and Accommodations

#### A. Print

In the State of Michigan, all students participate in the assessment programs approved by the State Board of Education. Accommodations are a critical part of ensuring accessibility by students with disabilities to instruction and assessments. For some students, accommodations routinely used during instruction may be considered for use during the administration of state assessments.

In addition to alternate assessments, a variety of accommodations are available to provide students access to test content. Some of these accommodations require accommodated or alternate forms, which are shown in the table below: For a complete listing of current state-approved accommodations, see (<http://www.michigan.gov/baa>)

Accommodated Formats	MEAP	MEAP-ACCESS	MI-ACCESS	MME
Audio Version (CD), English (except Reading and Writing)	X	X	X	X
Video Version (DVD), English, Spanish, Arabic (except Reading and Writing)	X			X
Reader Script (Except Reading or Writing)	X	X		X
Enlarged Print (EP) Version	X	X	X	X
Braille Version	X	X	X	X

1. Audio/Reader Scripts are produced to allow test administrators to read items aloud to a student while the student follows along with a regular test. MDE will provide a POF of a Reader Script for one form of each assessment. An Audio version of a pre-recorded reading of the assessment will be produced by the Contractor in English.

The Contractor must provide the audio version of each test and print Readers Scripts based on orders placed on the BAA Secure Site. Audio and Reader’s Scripts are based on one form designated by MDE as a form used for accommodations.

2. Video Version (DVD) English, Spanish and Arabic Versions are similar to the Audio version of each test; however, they include a video of the designated form. The versions for Spanish- and Arabic-speaking students are provided for MEAP and MME.

The Contractor must utilize the Reader’s Script to develop parallel versions in Spanish and Arabic for all instructions and all parts of the item, which are read to students. The Contractor must use experts in K-12 education as well as English, Broadcast Spanish, and Modern Standard Arabic to create grade-level appropriate, parallel forms to the English version. Translations will be reviewed by a third party and submitted to MDE in PDF format.

3. Enlarged Print (EP) is available as an accommodation for students on all assessments. MDE currently uses American Printing House for the Blind (APH) guidelines for the preparation of Enlarged Print materials. All orders for Enlarged Print materials will be made by schools calling the Contractor’s Call Center.

The Contractor must produce Enlarged print materials from POFs provided by MDE. The EP materials will be increased 35% and printed on off-white paper. Some materials like rulers cannot be enlarged without distortion so the Contractor must review all items for possible problems arising from enlargement and provide a solution.

4. Braille is available as an accommodation for students on all assessments. MDE uses American Printing House for the Blind (APH) guidelines for the preparation of Braille materials. The Contractor must maintain a list of all Braille students identified in the BAA secure site. All orders for Braille materials will be made by schools calling the Contractor’s Call Center.

MDE will provide POFs of Assessment Administration Booklets, and Print to Braille Correspondence (notes that detail changes made to the print version to make them accessible with Braille) for each Braille test.



The Contractor must print the Braille Assessment, the Assessment Administration Booklet and Braille Correspondence and pack the materials into individual Kits for student use. Third Grade Braille Kits must also include a combined test booklet/answer document. All other Braille tests are transcribed onto a regular answer document by a test administrator.

## **B. Quality Assurance Plan**

1. Developing audio scripts or video versions of items and tests in English or other language require a number of steps to ensure a standard of quality, including such issues as language dialects. The Contractor must provide experienced staff and processes required to maintain quality of the accommodated formats and methods for evaluation.
2. The Print Contractor must use the Accommodated Formats table and descriptions to describe the processes used to develop and reproduce accommodated formats for students, including quality assurance steps of gathering requirements and UATs.

## **C. Online**

As the State of Michigan migrates to online assessment, these accommodations are being reviewed as a student's accessibility requirements for online testing. Online assessment systems that provide student-based screen adjustments and optional tools by item type will be required in 2014-15.

1. Audio/Reader Scripts are produced for human voice and computer –generated voice to develop technology-enabled items for computer-based delivery. As the item is presented, the student is able see the words that are being read. Currently, the MDE provides a Reader Script for one form of each test. With online testing, the reader script must be available by item so that spiraled fixed forms and CAT can occur.
  - a. The Online Contractor will provide an Audio Version (in English) of a pre-recorded reading of each item that can be accessed for designated groups of students
  - b. Audio version may include all students for some grade levels and content areas as well as identified students with special needs for other grade levels or content areas by test type.
2. Spanish and Arabic Versions are similar to the Audio version of each item for computer-based items. These parallel versions, which are produced by Spanish and Arabic-speaking human voices, are used to develop technology-enhanced items for online delivery of general assessment items (MEAP and MME).
  - a. The Contractor must use the Reader's Scripts provided by MDE to create Spanish and Arabic versions of all parts of the items and instructions read to students.
  - b. The Contractor must use experts in K-12 education as well as English, Broadcast Spanish, and Modern Standard Arabic to create grade level appropriate, online items that are parallel to the English version. All Spanish and Arabic versions of items will be reviewed by a third party and submitted to MDE for approval prior to their online use.
3. Enlarged Print (EP) is available as computer-based magnification function available to students for all test types. The Contractor must ensure that the accurate enlargement of items can be accomplished with a magnification function or tool for all online assessments, paying particular attention to graphics which may appear pixilated or stretched during this process.
  - a. The magnification tool must be capable of producing no less than a 35% increase in items.
  - b. All online tools like rulers and protractors must maintain accuracy with magnification.
4. Braille should be available as an online adaptive accommodation for students on all assessments. The Contractor will be asked to provide an assessment in refreshable Braille.
  - a. The Contractor must maintain a list of all Braille students identified in the BAA secure site. Schools will identify all students to test on-line with Braille by calling the Contractor's Call Center.
  - b. MDE will provide POFs of Assessment Administration Booklets and Braille Correspondence (notes that detail changes made to the print version to make them accessible on-line with refreshable Braille) for each Braille test.
  - c. The Contractor must deliver each item and stimulus with either a 40-cell Refreshable Braille Display or Braille Embosser unless the item or stimulus contains tactile or spatial components. These items must have the capability of being sent automatically to a Braille embosser. The adaptive Braille must also have the capability of producing embossing of any item or passage on demand/student request.
  - d. In addition, online assessments must be capable of delivering test items through a text to speech audio component.



5. The Online Contractor's web-based test delivery system must be compatible with other third-party devices and software that allow accommodations to be offered to students with disabilities for accommodations that cannot be built into the Contractor's system. Devices that can be used with the test delivery interface include alternate keyboard, alternate mouse, braille note-takers, keyboard emulators, and alternative and augmentative communication devices. Refreshable braille displays have been addressed in number 4.
6. The Online Contractor's accessibility tools are required as part of this Contract to provide dates and prior testing enhancements to the online assessment system to meet SBAC standards for accessibility modifications and tools that will be required to deliver ELA and mathematics items in 2014-15.
7. The Online Contractor must provide and have tested its system to meet QTI industry standards and plans for adopting APIP standards, once they are available. The requirements for accommodated formats, such as reader scripts or a read-aloud Spanish version is critical for CAT. A student requiring refreshable Braille, for example, may be more limited in the number of items available to take (as all items are not Brailleable). The Contract must provide a pre-id file for students that also contains the same item-based links in order for the online system to know what to present next.
8. The Contractor must provide preferences such as screen brightness, contrast or color as some students are color blind. Along with screen adjustments, presentation of items and choice of tools is critical for many students, who may be confused with figure/ground relationships on a "busy" screen. The use of a highlighter and devices to block parts of the screen is required. Identifying these student preferences as part of the pre-id and the software for the student would help ensure that the student's accessibility is optimal without depending on specialized adjustments from administration proctors at the time of testing.

The Contractor must provide current capabilities for providing student accessibility tools and any plans for improvement based on current QTI standards as well as evolving APIP standards. The Contractor must provide the tools and accommodations accessed by the student during testing will be tracked as well as how student profiles are created and/or uploaded to allow for appropriate accommodation options during testing. The Contractor shall include all resources required to make a test item accessible for all students, including those with a variety of disabilities and special needs.

#### **D. Quality Assurance Plan**

The Contractor, when developing audio versions of items in English or other language, require a number of steps to ensure a standard of quality, including such issues as language dialects. The Contractor must provide processes to maintain quality of the accommodated formats and methods for evaluation.





## – PART 1 –

Part 1: Sample Multiple-Choice Question      A  B  C  D

- |  |  |  |  |
|--|--|--|--|
| 1 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 16 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 31 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 46 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 2 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 17 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 32 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 47 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 3 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 18 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 33 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 48 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 4 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 19 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 34 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 49 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 5 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 20 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 35 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 50 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 6 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 21 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 36 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 51 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 7 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 22 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 37 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 52 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 8 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 23 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 38 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 9 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D  | 24 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 39 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 10 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 25 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 40 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 11 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 26 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 41 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 12 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 27 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 42 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 13 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 28 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 43 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 14 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 29 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 44 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 15 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 30 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 45 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |

STOP – DO NOT GO ON UNTIL TOLD TO DO SO

## – PART 2 –

Part 2: Sample Multiple-Choice Question      A  B  C  D

- |  |  |  |  |
|--|--|--|--|
| 53 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 58 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 63 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 68 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 54 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 59 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 64 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 69 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |
| 55 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 60 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 65 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 56 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 61 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 66 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |
| 57 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 62 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D | 67 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D |  |

STOP

**GRADE 6**



**Appendix F: Reserved**



## Appendix G: Item Bank Description

### BAA Item Banking System (IBS)

The BAA Item Banking System is a State developed web-based application that encompasses all of the following functions within a single framework:

- Complete Item Development Life Cycle – manages the entire workflow process and item versioning for all user roles contributing to the development of the item from item assignment through retirement of the item. This includes functionality for Item Assignment, Item Authoring, Content Review and Edification, Media Composition and linkage, Stimulus Creation and linkage, Scoring Rubrics and linkage, Committee Reviews, Editorial Review, addition of attributes (accommodated formats and translations) and meta data (item statistics for each administration), Psychometric review, Data Review, and Test Bank pool inventory. Additionally there are advanced search capabilities on item elements, metadata, and stimuli; and the item versioning history is maintained and viewable through UI screens.
- Test Development Processes – includes functionality to build test blueprints (test specifications), select anchor or linking items, and auto generate a testmap for multiple forms (IBS will select items from the IBS that best fulfill the blueprint specifications), Content and Psychometric Review of the auto generated forms and statistical reports for each form (including Test Characteristic, Test Information, and Test Standard Error Curves), ability to rearrange or replace items in the test map, and monitor the test development workflow from blueprint creation through test map approvals by Content and Psychometric reviewers. Approval of the test maps initiates the Test Packager export. It should be noted that current capabilities generate a fixed form test, but the blueprint specification process will support creation of a Test Bank export process for adaptive testing.
- Test Composition Process – manages the process flow for all users involved in the Test Composition process including XML exports, review and approval of published item formats (OnePer) for each item within a test map. That approval process initiates the pre-production export of the OnePers in test booklet order for each form included in the test map, as well as Reader Scripts, translation formats, and other ancillary materials associated with items in the test map needed for production. It should be noted here that the export process also supports XML export (Test Packager) for delivery to the online delivery engine, and is adaptable to export a Test Bank to interface with an adaptive engine.



## Appendix H: Secure Site Description

### BAA Secure Site

The BAA Secure Site is one system that contains student and teacher data with regard to assessments and provides this essential data for the purpose of test administration. , and the BAA Secure Site provides district and school personnel, ISD/District/School administrators, and SOM administrators a central repository of student assessment data. Additionally data is automatically fed into the BAA Secure Site from the MSDS data collection to ensure that student and teacher data is up-to-date. Most importantly, the BAA Secure Site is a student-centric system in which students are linked to teachers, tests, and groups for ease of administration and reporting. Data is also maintained for the following assessments;

1. Michigan Educational Assessment Program (MEAP) – A State assessment for general education and some special education students in grades 3 through 9.
2. Michigan Merit Exam (MME) – A State assessment for general education and some special education students which consist of three components; 1) ACT® plus Writing, 2) WorkKeys® Locating Information and 3) Michigan Math, Social Studies and Science in grades 11 and 12.
3. Michigan's Alternate Assessment System (MI-Access) – An alternate State assessment designed for students with cognitive impairments. There are three different types of MI-Access assessments available; 1) Functional Independence, 2) Supportive Independence, 3) Participation. This assessment is given in the fall for students in grades 3 through 8 and the spring for grade 11.
4. Michigan's Alternative Assessment based on Modified Achievement Standards (MEAP-Access) – An alternative State assessment based on modified achievement standards for students with disabilities for students in grades 3 through 8.
5. English Language Proficiency Assessment (ELPA) – This is an assessment that is used for students that have already been determined to eligible for English Language Learners (ELL) services to monitor their process in English. This assessment is given to students in kindergarten through grade 12.
6. English Language Proficiency Assessment Screener – This is an assessment that is used to screen incoming students whose primary language is something other than English. It is administered throughout the year on an individual student basis for students in kindergarten through grade 12.

The existing application provides the following primary functions:

1. Pre-identification of students to be tested – This is the mechanism by which the districts and schools identify the students that will be participating in a particular assessment.
2. Ordering of assessment materials – This is the process by which the districts and schools order assessment materials for the students that have been pre-identified for a given assessment.
3. Verifying students expected-to-test and student demographics (Expected-to-Test) – This is the process by which the districts and schools verify their final enrollment of students and the demographics for those students that are available in MSDS.
4. Verification of scanned assessment documents and demographic information (Tested Roster) – The Tested Roster window is the time when the districts and schools verify that the answer documents for all the students that participated in a particular assessment have been received and scanned correctly. During the Tested Roster window, appeals for prohibitive behavior and non-standard accommodations can be submitted. Issues related to missing students, missing answer documents, moving students to another school or district and combining of students can also be created during this period.
5. Identifying why students did not test (Students Not Tested) – The Students Not Tested window allows the districts and schools an opportunity to provide a reason why a student did not test. The information from the final enrollment and tested roster is used identify the students for this comparison.
6. Access to student assessment score report PDFs – The schools and districts can view student level and aggregated reports in a PDF format for a selected assessment.
7. Miscellaneous report creation – The schools and districts can create miscellaneous reports such as Pre-identification of students, Tested Roster, Barcode Labels and Student Record Labels.
8. ELPA Screener material order shipping and tracking – This is the process where districts and schools can order materials for the ELPA Screener assessment.
9. ELPA Screener score entry and report creation – This is the process that a district or school can enter the student results for the ELPA Screener assessment. The Individual Student and Class Roster reports are available for this assessment.
10. Security administration – The security administration maintains and assigns roles and privileges to users of the BAA Secure Site.



## Appendix I: Assessment Composition Requirements and Processes

Creation of electronic .pdf booklets of Michigan's K-12 assessment materials and the quality control processes required for their transfer to a print vendor follow established and proven protocols.

There are different types of assessment materials that both students and administrators use in the successful administration of one of Michigan's assessment. Each of Michigan's five current assessment programs uses particular materials dedicated for that program, although many of the types of the printed materials are analogous between programs.

All printed assessment materials undergo a writing and a quality control process before any particular booklet is published. This is true of student test booklets, administrator manuals, report guides, ancillary header sheets, item descriptor booklets, Braille materials, enlarged print booklets, reader scripts, or any other type of material that is used before, during, or after assessments are administered.

Each of these different types of printed materials has a different writing and quality control process, tailor-made to the particular type of material. Whereas the writing or generation of a particular type of material may originate with one particular work team within MDE, all materials pass through multiple work teams along a quality control process before being passed to a print vendor.

For the purposes of describing each of the content generation and quality control steps that involve Michigan's Item Banking System (IBS), it is best to focus primarily on student test booklets. Student test booklets are also excellent examples of products that are created with the input of multiple teams.

The generation of content for student test booklets begins with blueprint creation within the IBS. It is at this step when a content lead designs a new assessment, selecting the content standards that its items will assess, among other details. A blueprint will also define the number of operational items and new field test items for that content area, at the particular grade level, and as a particular administration type (regular or Braille).

This content lead then assigns items (and, in the case of Reading, new contexts) to be written by selected writers. For items, writers submit items that are reviewed by content leads. These content leads can ask writers to revise their items before accepting them. Once accepted, requests for graphics that the item writers have made, if appropriate to the item, are forwarded to the graphic designers for creation. The Composition Lead role in the IBS routs particular graphic requests to graphic designers; when their graphics are fulfilled and approved by the content leads, their graphics are associated with the right items. Then, content leads have the opportunity to advance items that they judge fit for field testing before committee reviews begin.

After the content and bias/sensitivity committees are held, results are reviewed by the content leads. Items that have been rejected by committees are eliminated from moving forward in the system and are given the label DNU (Do Not Use). Items that have been accepted but have recommended changes from the committee(s) are reviewed by content leads, and forwarded to the Editor after the content lead makes the recommended changes to the content of the item. Finally, items that are accepted as-is from the committee(s) are forwarded directly to the Editor role in the IBS.

The Editor then has a similar task: review the items, accepting each item as-is or recommending further changes. A content lead then gets a final chance to accept each item, agree to recommended edits and make those revisions, or reject the item entirely and give it DNU status. At this time, any attributes are added to the item by the content lead (such as item descriptor text and reader script text), the content lead can then "bank" the item, meaning the item is complete, free of error, is worded the way that the content lead wants, and has approved graphics (if applicable). (It should also be noted that item attributes can be added even after the Banked stage.)

A test map for a specific content area, grade level, and administration type can then be created from a base blueprint; the IBS assigns eligible items at particular functions (field test or operational items) according to the content lead's directions on where the items should appear in the test map, after the content lead assigns particular content standards GLCEs/HSCes and the quantities of items assigned to those benchmarks from available pools. Field test items that have been banked using the process described above can be thus be assigned to new test maps.



When this happens, the IBS alerts print compositors as to which one-pers to make. One-pers are single documents that show “one item per page” (hence the name) and are generated by print compositors as .pdf files. When they begin their existence as raw files in Adobe InDesign, these .pdf one-pers are typically designed with a particular template that allows for automated placement within a student test booklet.

The Test Process screen in the IBS shows which one-pers need to be created, and which one-pers have been retained from a previous administration cycle. Retaining one-pers, for example in the case of items that have appeared previously as field test items and are now ready to be included as operational items, is a method of maintaining version control of items between administration cycles, as the IBS will already have stored one-per .pdfs of items that appear again for future assessments, locking out unapproved changes.

Items that do not have one-per files attached to their IBS data will be identified by the IBS as those that need one-pers to be created. After its alert is created, the IBS prepares one-per XML files that are downloaded by the Composition Lead or a print compositor. Each XML file is interpreted by the print compositor’s InDesign software; its text and graphics (if any) are present in the XML file and thus are said to “flow in” to the pre-designed item template. According to established assessment Style Guides, the print compositor then positions the item stem, its options, and any graphics, and applies any “booklet-level” styling such as word underlining. This raw file is then exported as a .pdf with pre-set print parameters in Adobe Acrobat so that, when it is automatically placed into a form of a student test booklet, it conforms to the specifications of Michigan’s print vendors.

Each newly-created one-per in .pdf format is then uploaded to the IBS by the print compositor. When all of the new one-pers are fulfilled according to the test map, the content lead first reviews the one-pers. Typically, the content lead compares the one-per to the data found in the IBS pertaining to the item (usually by looking at a “preview” screen in the IBS). In the case of one-pers for operational items, the content lead also typically compares to how the item appeared in samples of student test booklets from the previous administration cycle in which the item appeared.

The content lead can request revisions to particular one-pers, identifying which items need revision by selecting their one-per for deletion and submitting a revision request. These functions are all part of content lead screens within the IBS. Likewise, the person in the Editor role can also request revisions to items that, for example, do not conform to established styles for that assessment. In these cases the Editor’s comments are reviewed by the content lead, and the content lead is the final arbiter of how to follow the suggestions made by the Editor. Like before, the content lead can delete one-pers that have errors based on the Editor’s recommendations. Any time the content lead does this, an alert is automatically generated by the IBS, and print compositors can correct errors in the .pdf one-pers.

When both the content lead and the Editor have approved all of the one-pers for a particular test map (at its content area, grade level, and administration type), the IBS automatically generates electronic per-production materials and makes these files available on a specified secure server. While the pre-production materials are not completed booklets, they can be thought of as all of the parts and pieces necessary to assemble them. This includes not just student test booklets, but also reader scripts and other related materials featuring assessment content as necessary in the administration of one of Michigan’s assessment programs.

Note that at several points before the pre-production materials appear in the secure server, each item (and context) has already undergone multiple quality control steps. In fact, the quality control for the item, from a content lead’s approval of it, the editor’s approval of it, to the committee’s reviews of it, have all been completed before the item has even been Banked. The value of this system is that the work of quality control over the resultant printed book is greatly streamlined. The one-pers themselves are a result of automation introduced by the IBS—at no time does a print compositor have to enter text by hand, and in ACT® the print compositor only arranges the pre-approved elements (stem, options, and graphics) on a snap-to-grid template in Adobe InDesign. Since the one-pers are all stored by the IBS and approved by content leads and the editor, they flow into booklet templates already correct and approved for use on assessments. No re-writing of items happens after the items are banked (although they can be re-field-tested and rewritten).

As a result, booklet composition for Michigan assessments using the IBS is a relatively automated process, with pre-approved templates holding pre-approved one-per .pdfs. When physical paper booklets enter the multiple-team proofing and editing system outside of the IBS, only booklet-level edits can be made by staff (although to add a further layer of scrutiny, proofers are still asked to check basic features such as spelling, punctuation, and grammar).

The three-round proofing system includes steps and individual checklists for different staff roles. In the first round of proofing and editing, the initial composition of test forms is done by print compositors and the Editor takes a first review. The original print compositor makes any changes that the Editor notes before the forms go to the content lead responsible



for the content area. The content lead completes his or her review and necessary changes are then made. Just before moving into the second round, all edits are checked to ensure they have been made correctly.

In the second round of proofing and editing, the Test Administration staff perform their review, with a special focus on the directions present in the student test booklet; they compare this text to the draft of the Test Administration Manual that is being prepared as well as ancillary materials for accommodated administration, such as reader scripts. Next, an additional proof is done by support staff, using their own checklist. Finally, any changes found in these reviews are made, and all edits are checked by the Editor to make sure they were made correctly.

The third and final round of proofing and editing is a set of sign-offs, declaring the final printed product to be error-free. In this round, the Editor, Test Administration staff, the content lead, the Test Development Manager, and finally the Composition Manager all sign off and attest that the booklet is in final, printable format. Once all signoffs have been made, the electronic file is passed to the contractor or print vendor.



**Appendix J - Reserved**



**Appendix K – Reserved**



### Appendix L: MDE File Format

Database Field Names	Field definition	Values	Comments
TestCycleID	int	99	69 - MEAP 2011 71 - MEAP-Access 2011
MEAPBarcode	varchar (10)	9999999999	MEAP or MEAP-Access barcode
ISDCode	varchar (20)	99	
DistrictCode	varchar (20)	99999	
SchoolCode	varchar (5)	99999	
Grade	char (2)	99	03 - 09
OutOfLevel	bit	1,0	1 if answer doc grade unequal to vDemographicData grade
LastName	varchar (25)		
FirstName	varchar (25)		
MiddleInitial	char (1)		
DateOfBirth	datetime	CCYY-MM-DD	
Gender	char (1)	M,F	
EthnicID	tinyint	0,1,3,4,5,6,9	
UIC	char (10)	9999999999	
StudentNumber	varchar (20)		
Address	varchar (50)		
City	varchar (30)		
State	varchar (2)		
zip	varchar (10)		
FeederSchoolCode	varchar (5)		
PostSecondarySchool1	int	0-9,Space, *	
PostSecondarySchool2	int	0-9,Space, *	
PostSecondarySchool3	int	0-9,Space, *	
PostSecondarySchool4	int	0-9,Space, *	
SE	bit	1, 0	Special Ed
LEP	bit	1, 0	Limited English Proficient
MS	bit	1, 0	Migratory Status
ED	bit	1, 0	Economically Disadvantaged
LTFAY	bit	1, 0	Less Than Full Academic Year
FLEP	bit	1, 0	Formerly Limited English Proficient.
Homeless	bit	1, 0	No grid
GraduationMonth	int	01 - 12, Space, *	
GraduationYear	int	2005 - 2015, Space,*	
InterruptedSchooling	bit		
TestCenterCode	char (2)		
ReadingCourseID	varchar (4)		Same as Class/Group ID
WritingCourseID	varchar (4)		Same as Class/Group ID
MathCourseID	varchar (4)		Same as Class/Group ID
ELACourseID	varchar (4)		N/A for 2011



ScienceCourseID	varchar (4)		Same as Class/Group ID
SocialStudiesCourseID	varchar (4)		Same as Class/Group ID
MathHomeSchool	bit	1, 0	
ScienceHomeSchool	bit	1, 0	
SocialStudiesHomeSchool	bit	1, 0	
ReadingHomeSchool	bit	1, 0	
WritingHomeSchool	bit	1, 0	
ELAHomeSchool	int	1, 0	N/A for 2011
MathNonStandard	bit	1, 0	
ScienceNonStandard	bit	1, 0	
SocialNonStandard	bit	1, 0	
ReadingNonStandard	bit	1, 0	
WritingNonStandard	bit	1, 0	
MathStandard	bit	1, 0	
ScienceStandard	bit	1, 0	
SocialStandard	bit	1, 0	
ReadingStandard	bit	1, 0	
WritingStandard	bit	1, 0	
MathVideoEnglish	bit	1, 0	
ScienceVideoEnglish	bit	1, 0	
SocialVideoEnglish	bit	1, 0	
ReadingVideoEnglish	bit	1, 0	No grid
WritingVideoEnglish	bit	1, 0	No grid
MathVideoSpanish	bit	1, 0	
ScienceVideoSpanish	bit	1, 0	
SocialVideoSpanish	bit	1, 0	
ReadingVideoSpanish	bit	1, 0	No grid
WritingVideoSpanish	bit	1, 0	No grid
MathVideoArabic	bit	1, 0	
ScienceVideoArabic	bit	1, 0	
SocialVideoArabic	bit	1, 0	
ReadingVideoArabic	bit	1, 0	No grid
WritingVideoArabic	bit	1, 0	No grid
MathAudio	bit	1, 0	
ScienceAudio	bit	1, 0	
SocialAudio	bit	1, 0	
ReadingAudio	bit	1, 0	No grid
WritingAudio	bit	1, 0	No grid
MathBraille	bit	1, 0	
ScienceBraille	bit	1, 0	
SocialBraille	bit	1, 0	
ReadingBraille	bit	1, 0	
WritingBraille	bit	1, 0	
MathLargePrint	bit	1, 0	
ScienceLargePrint	bit	1, 0	
SocialLargePrint	bit	1, 0	



ReadingLargePrint	bit	1, 0	
WritingLargePrint	bit	1, 0	
MathLEPTestReadEnglish	bit	1, 0	No grid
ScienceLEPTestReadEnglish	bit	1, 0	No grid
SocialLEPTestReadEnglish	bit	1, 0	No grid
ReadingLEPTestReadEnglish	bit	1, 0	No grid
WritingLEPTestReadEnglish	bit	1, 0	No grid
MathLEPTestReadNative	bit	1, 0	
ScienceLEPTestReadNative	bit	1, 0	
SocialLEPTestReadNative	bit	1, 0	
ReadingLEPTestReadNative	bit	1, 0	No grid
WritingLEPTestReadNative	bit	1, 0	No grid
MathLEPDirReadEnglish	bit	1, 0	No grid
ScienceLEPDirReadEnglish	bit	1, 0	No grid
SocialLEPDirReadEnglish	bit	1, 0	No grid
ReadingLEPDirReadEnglish	bit	1, 0	No grid
WritingLEPDirReadEnglish	bit	1, 0	No grid
MathLEPDirReadNative	bit	1, 0	No grid
ScienceLEPDirReadNative	bit	1, 0	No grid
SocialLEPDirReadNative	bit	1, 0	No grid
ReadingLEPDirReadNative	bit	1, 0	
WritingLEPDirReadNative	bit	1, 0	
MathLEPOtherAccom	bit	1, 0	
ScienceLEPOtherAccom	bit	1, 0	
SocialLEPOtherAccom	bit	1, 0	
ReadingLEPOtherAccom	bit	1, 0	
WritingLEPOtherAccom	bit	1, 0	
MathMultiDay	bit	1,0	Merge of ELL and Disability Multiple Day
ScienceMultiDay	bit	1, 0	Merge of ELL and Disability Multiple Day
SocialMultiDay	bit	1, 0	Merge of ELL and Disability Multiple Day
ReadingMultiDay	bit	1, 0	Merge of ELL and Disability Multiple Day
WritingMultiday	bit	1,0	Merge of ELL and Disability Multiple Day
MathOtherAccom	bit	1, 0	
ScienceOtherAccom	bit	1, 0	
SocialOtherAccom	bit	1, 0	
ReadingOtherAccom	bit	1, 0	
WritingOtherAccom	bit	1, 0	
MathUnethical	bit	1, 0	Prohibited Behavior
ScienceUnethical	bit	1, 0	Prohibited Behavior
SocialUnethical	bit	1, 0	Prohibited Behavior
ReadingUnethical	bit	1, 0	Prohibited Behavior
WritingUnethical	bit	1, 0	Prohibited Behavior
ACT® Unethical	bit	1, 0	Prohibited Behavior
MathMisAdministered	bit	1, 0	



ScienceMisAdministered	bit	1, 0	
SocialMisAdministered	bit	1, 0	
ReadingMisAdministered	bit	1, 0	
WritingMisAdministered	bit	1, 0	
ACT® MisAdministered	bit	1, 0	
ACT® CollegeReportable	bit	1, 0	
MathArabic	bit	1, 0	
ScienceArabic	bit	1, 0	
SocialArabic	bit	1, 0	
ReadingArabic	bit	1, 0	
WritingArabic	bit	1, 0	
ELAArabid	bit	1, 0	N/A for 2011
MathChaldean	bit	1, 0	
ScienceChaldean	bit	1, 0	
SocialChaldean	bit	1, 0	
ReadingChaldean	bit	1, 0	
WritingChaldean	bit	1, 0	
ELAChaldean	bit	1, 0	N/A for 2011
MathSpanish	bit	1, 0	
ScienceSpanish	bit	1, 0	
SocialSpanish	bit	1, 0	
ReadingSpanish	bit	1, 0	
WritingSpanish	bit	1, 0	
ELASpanish	bit	1, 0	N/A for 2011
MathOtherLanguage	char (1)	1, 0	
ScienceOtherLanguage	char (1)	1, 0	
SocialOtherLanguage	char (1)	1, 0	
ReadingOtherLanguage	char (1)	1, 0	
WritingOtherLanguage	char (1)	1, 0	
ELAOtherLanguage	varchar (1)	1, 0	N/A for 2011
MathResearchCode1	char (2)	01 - 10, Space, **	
MathResearchCode2	char (2)	01 - 10, Space, **	
ScienceResearchCode1	char (2)	01 - 10, Space, **	
ScienceResearchCode2	char (2)	01 - 10, Space, **	
SocialResearchCode1	char (2)	01 - 10, Space, **	
SocialResearchCode2	char (2)	01 - 10, Space, **	
ReadingResearchCode1	char (2)	01 - 10, Space, **	
ReadingResearchCode2	char (2)	01 - 10, Space, **	
WritingResearchCode1	char (2)	01 - 10, Space, **	
WritingResearchCode2	char (2)	01 - 10, Space, **	
ELAResearchCode1	char (2)	01 - 10, Space, **	N/A for 2011
ELAResearchCode2	char (2)	01 - 10, Space, **	N/A for 2011
MathScribe	bit		
ScienceScribe	bit		
SocialScribe	bit		
ReadingScribe	bit		



WritingScribe	bit		
MathCalculator	bit		
MathReader	bit		Merge of ELL & Disabilities Reader Script
ScienceReader	bit		Merge of ELL & Disabilities Reader Script
SocialReader	bit		Merge of ELL & Disabilities Reader Script
ReadingReader	bit		Merge of ELL & Disabilities Reader Script
WritingReader	bit		
MathWordProcessor	bit		
ScienceWordProcessor	bit		
SocialWordProcessor	bit		
ReadingWordProcessor	bit		
WritingWordProcessor	bit		
MathTestType	char (2)		
ScienceTestType	char (2)		
SocialTestType	char (2)		
ReadingTestType	char (2)		
WritingTestType	char (2)		
MathTestTaken	bit	1, 0	
ScienceTestTaken	bit	1, 0	
SocialTestTaken	bit	1, 0	
ReadingTestTaken	bit	1, 0	
WritingTestTaken	bit	1, 0	
ListeningTestTaken	bit	1, 0	
ACT® TestTaken	bit	1, 0	
WKTestTaken	bit	1, 0	
MITestTaken	bit	1, 0	
MathTestUIN	char (20)		
MathTestDocID	char (16)		
ScienceTestUIN	char (20)		
ScienceTestDocID	char (16)		
SocialTestUIN	char (20)		
SocialTestDocID	char (16)		
ReadingTestUIN	char (20)		
ReadingTestDocID	char (16)		
WritingTestUIN	char (20)		
WritingTestDocID	char (16)		
ACT® TestUIN	char (20)		
ACT® TestDocID	char (16)		
SerialNbr	int		
ModifiedDate	datetime		
CreatedDate	datetime		
Unassigned	bit		
MathADKey	int		
MathIDocID	int		



ScienceADKey	int		
ScienceIDocID	int		
SocialADKey	int		
SocialIDocID	int		
ReadingADKey	int		
ReadingIDocID	int		
WritingADKey	int		Grade 3: Reading
WritingIDocID	int		Grade 3: Reading
MathMEAPAccessElig	bit	1,0	N/A for 2011
ReadingMEAPAccessElig	bit	1,0	N/A for 2011



## **Appendix M: Guide to Reports**

**Please see the following website for the MEAP Guide to Reports.**

[Fall 2011 MEAP Guide to Reports](#)

**Please see the following website for the MME Guide to Reports**

[Spring 2012 MME Guide to Reports](#)



**Appendix N: Current Test Deck and User Acceptance Rules**

***User Acceptance Test Plan***

***MME 2012***

***Tested Roster***

**USER ACCEPTANCE TESTING (UAT)**

***User Acceptance Definition***

The purpose of this test is to verify that the process described in the Tested Roster Requirements document works properly for every scenario.

***UAT Responsibilities***

<b>Role</b>	<b>Name</b>	<b>Responsibilities</b>
IT Manager	TBD	Oversees technical UAT process
QA Analyst	TBD	Verifies QA steps and results
BAA Approver	TBD	Sign off on UAT on MME SharePoint website
BAA Testers	TBD	Perform test steps, identify bugs, communicate bugs to Contractor's QA Analyst Ensure testing takes place within agreed-upon time frames

**UAT PLAN**

***Test Approach***

**Defects**

Test step failures are recorded in this document and reported as soon as possible to the Contractor's QA Analyst, who logs the defects into the defect tracking application. When fixed, the Analyst alerts the Acceptance Test Tester, who retests the failed step in a timely manner.

**Test Data Source**

The source of the test data are records in the MME 2012 test database, which were created to match the test cases that follow.

**Test Environment**

The test environment is the actual production environment, except that: 1) the records that make up the test data source are created by Contractor personnel, and 2) the data are stored in the system test database, rather than the production database.



## Test Process and Results

Records in the Contractor test database are transmitted to the BAA database, and updates in the BAA database are downloaded to the Contractor as follows. (This describes the basic flow, but it should be noted that at any point in time during Tested Roster, there are records being processed at every step.)

1. Contractor writes records that require barcode processing to a table.
2. Contractor downloads the table and updates any resolved barcodes into the corresponding answer documents.
3. After barcode processing, Contractor writes all documents with barcodes to the import table, and a record is sent to the batch table to alert BAA that a batch is ready for BAA processing.
4. Contractor transmits data.
5. Contractor makes answer document images available for viewing at a BAA website.
6. BAA tested roster processes and requests entered by districts and schools occur. Records are added to the database tables as needed.
7. Contractor downloads tested roster issues and updates the tested roster table with the results of research performed on the issues.
8. Contractor transmits tested roster data to BAA. BAA updates the demographic data.
9. This process continues until a cut-off date, at which time Contractor downloads a final version of the demographic data to use for reporting.

## Images

For the UAT, the Contractor will host sample images and send BAA a link to be incorporated into the viewing application to verify that the document identifiers retrieve the correct documents.

## Document Identifiers

The UAT documents are identified by a key, a database unique identifier for answer document records.

## Test Cases — Barcode Processing: Missing and Invalid

For the UAT Barcode Processing section, the Contractor creates records in an assign barcode table, which are then transmitted to the BAA Assign Barcode table.

All documents that have no barcodes/invalid barcodes are sent for no barcode processing. However, duplicate barcode documents that are determined to belong to the same student are not sent to BAA. The rules used to make this determination are stated in the requirements.



**Appendix N  
(Continued)**

Test Case Number	Test Case Description	Expected Result
3.1	No Barcode — partial key values Has district code, school code, last name, and first name, but no date of birth	May or may not assign new barcode
3.2	No Barcode — all key values Has district code, school code, last name, first name, and date of birth	New barcode assigned
3.3	Invalid Barcode — partial key values Has district code and school code but does not have last name, first name, and/or date of birth	May or may not assign new barcode
3.4	Invalid Barcode — all key values Has district code, school code, last name, first name, and date of birth	New barcode assigned
3.5	Barcode Name - Bubbled Name Mismatch	New barcode assigned if the barcode is invalid. Otherwise, the name is corrected to match barcode.
3.6	Update barcode For every new barcode assigned in barcode processing	Answer docs barcode updated with barcode assigned in Assign Barcode table and record sent to tested roster table



#### 4 Duplicate Barcodes

Test Cases	Expected Result
<p><b>4.1 Duplicate non blank documents —more than one is complete</b> Compare barcode information with gridded information from answer documents — different students.</p>	The barcode is assigned to the right student, and the other record is sent for Missing Barcode processing.
<p><b>4.2 Duplicate non blank documents — neither is complete (one or more sections blank)</b> Compare barcode information with gridded information from answer documents — different students.</p>	The barcode is assigned to the right student, and the other record is sent for Missing Barcode processing.
<p><b>4.3 Duplicates for the same student are processed according to section 2.7.1 in Tested Roster requirements. (Tested by contractor QA)</b></p>	This step is to be performed in production.

#### 5 Test Cases — Tested Roster Processing

For the UAT Tested Roster Processing section, BAA creates tested roster issue table for the Contractor to download. After download, the Contractor processes the issues, updates data tables, and transmits them to BAA.

Test Case Number	Test Case Description	Expected Result
5.1	Combine The District/School submits a combine issue	The records are combined on the BAA system.
5.2	Missing test — found	Data in next data transmission
5.3	Missing test — not found	Data not in next data transmission
5.4	Move request entered by district/school — within district Record written to issues table	BAA approves and updates Issues table Student added to the tested roster table
5.5	Move request entered by district/school — out of district Record written to tested roster issues	BAA approves and updates Student added
5.6	Post processing values transmitted	All barcode data in table
5.7	<b>Answer doc sent</b> to tested roster as usual	Record present in test data table



## **Appendix O: Independent Psychometric Quality Assurance Review**

### **Independent Psychometric Quality Assurance Review**

As part of this contract, the bidder will submit pricing necessary to obtain services from an independent psychometric firm for the purpose of verification and validation of BAA Measurement Research and Psychometrics operational work. As mentioned, BAA performs psychometric services in-house for all of its assessments. In order for this to happen successfully and to provide transparency and assurance to our consumers, it is crucial that our work is verified by adequately qualified psychometricians who are removed from the scanning and scoring process. Although the contract for this firm is paid through a line item in the proposal much like the forensic services, this work is also to be performed independent of the administration and reporting contractor to ensure that their procedures are free from potential bias or collusion. The analyses outlined below are the minimum requirements and further analyses might be prescribed at or after the initial kick off. In addition to the analyses, this independent verification firm is expected to send a representative to all BAA TAC meetings and will be expected to contribute a chapter to the annual technical report for each program they provide oversight for. The section outlines all of their procedures as well as the flow of information from scoring vendor, to BAA, to the verification firm and the subsequent reporting back to BAA on their findings.

### **Verification Scaling & Equating**

All psychometric procedures connected to the scaling and equating of the assessments will be verified and replicated. The Print and Online Contractor(s) shall provide to this entity all the same data that are provided to the BAA psychometric unit. The analysis is to be performed independent of BAA's work but within the same prescribed timelines to ensure timely reporting.

The proposed vendor must have demonstrated experience in large-scale K—12 assessment with clients at least as large in sample size as Michigan. Verification experience must include analyses utilizing Item Response Theory (IRT) equating, scaling, and item analysis with experience implementing all commonly used models and configuration (e.g. Rasch, 2PL, 3PL, GLPC, etc).

The bidder should also have experience in coordinating this work with various contractors. Working with the psychometric staff of another organization requires extensive planning and coordinated scheduling. It is essential that the quality control work be extensive and accurate, but it is equally important that it be completed in a timely fashion so that overall project schedules can be met. This requires that both the independent firm and the psychometric staff of BAA work closely in planning for the transfer of data and analysis results.

Once major portions of the analysis are completed, the independent verifier will compile the two sets of results into a comparison spreadsheet. These spreadsheets are then examined by the verification firm and BAA to determine if the replication was successful. When discrepancies are found, a conference call or email dialogue is initiated to determine the root cause. It is expected that the independent verifier provide a complete, transparent, and open opinion of the results and help advise BAA as needed; however, the determination for which analysis is accepted for reporting is at the discretion of BAA, which is the ultimate authority.

The three major analyses for a typical project are detailed below in four Analysis Sets for descriptive purposes: Analysis Set 1- Pre Equating Scaling, Analysis Set 2- Post Equating Scaling, Analysis Set 3-Field Test Item Analysis.



## Analysis Set 1- Pre Equating Scaling

Two key components of the test scaling are provided by the BAA program prior to test administration. The test forms are detailed in a Test Map spreadsheet that provides information on item scoring, form composition, and organization. Within the test map the item parameter analysis information from previous field tests is presented since test items have been previously calibrated to the reporting scale through item response theory based on the data collected in previous years a pre-equating analysis can be done to produce preliminary raw score to scale score tables.

### Step 1—Determine Test Form Item/Point Counts and Identify Item Parameters

Test Maps are used to provide the number of test items, test points, and IRT equated difficulty parameters.

### Step 2—Pre-Equate Based on Field Test Values

Raw Score to Scale Score tables, or theta to scale score conversion equations, are developed for each test form using the appropriate IRT scaling software.

### Step 3—Develop Comparison Spreadsheets

Raw to Scale Score tables or conversions from BAA and the independent verifier are compared to determine if the scale scores, error term, and performance level are equivalent. How much of a difference is flagged will be determined by BAA.

## Analysis Set 2—Post-Equating Scaling

As mentioned, preliminary raw scale to scale score tables or conversion equations are developed from the Pre-Equating process. The Post-Equating analysis takes place after student work has been scored and is based on a data set that includes at least 90% of the tested population. The Post-Equating analysis checks for the stability of the item difficulty parameters. Differences from the Pre-Equated values from the bank and the Post-Equated values from the assessment are scrutinized, with the ultimate decision on which values to use for scoring residing with BAA.

### Step 1—Check Data File for Unreasonable Values

In large data files, implausible item response values are often found. This is particularly true in scored data files. The independent psychometric verifier should examine the item score fields for values that are not plausible given the form designation and the item key. When values are found, BAA is to be notified immediately so a proper investigation can take place and a course of action can be determined.

### Step 2—Initial Calibration Run

The data are analyzed by the prescribed IRT program to develop initial unanchored item parameters.

### Step 3—Develop an Initial Comparison Spreadsheet

The initial Difficulties, n-counts, P-values, and Point-Biserials are compared.

### Step 4—Examine Item Stability

If the difficulty value from the Pre-Equating differs by more than the prescribed BAA criteria from the Post-Equating value, that item is dropped from the equating of post values to item bank values. As is the case with other analyses, the dropping of items is at the discretion of BAA.

### Step 5—Post-Equating WINSTEPS Run

An equating constant between bank values and initial IRT calibration values will be developed using common items that are not dropped in Step 4. The equating constant is then applied to the initial calibration run to put the item difficulties on the original scale. New raw score to scale score tables or conversion equations will be generated.

### Step 6—Develop Post-Equating Comparison Spreadsheet

Raw score to scale score tables or conversion equations are again compared between BAA and the verification firm to determine convergence. Final decision rests with BAA psychometricians.

## Analysis Set 3—Field-Test Item Analysis

Field-test items are analyzed to provide item data for committee review and parameter values for future form scaling and equating. All forms contain field-test items. The analysis consists of information about the performance of the item for the total population and item performance for ethnic and gender groups that *may* yield differential item performance statistics.

**Step 1—Check Data File for Unreasonable Values**

In large data files, implausible item response values are often found. This is particularly true in scored data files. The independent psychometric verifier should examine the item score fields for values that are not plausible given the form designation and the item key. When values are found, BAA is to be notified immediately so a proper investigation can take place and a course of action can be determined.

**Step 2—Item Statistics for the Total Group**

Analyses will first be run by grade/subject on all forms to develop item parameters, p-values, and point-biserials. The operational items are to be used as base values and their difficulty parameters fixed so that field-test item parameters can be placed on the same scale.

**Step 3—Item Statistics for Ethnic and Gender Group and Calculation of Differential Performance Indicators**

The data will also be analyzed by ethnic/gender groupings: female/male and African-American/White. N-counts, p-values, and point-biserials are calculated. Differential Item Performance statistics developed are the Mantel-Haenszel statistics and Standardized Mean Differences.

**Step 4—Develop Field-Test Comparison Spreadsheet**

The field-test comparison spreadsheet is item-based. For each item the total and group n-counts p-values, point-biserials, and item parameters are compared.



## Appendix P: Contractor Administration Plan Model

The Contractor acknowledges that the overall administration plan will be developed based on the tasks and subtasks for the State's K–12 assessments program detailed in this Contract. The proposed 2013–2014 project schedule, for example, must be based on the pre-established assessment windows and milestone dates included in the table in **Section 1.041**. It is understood that all pre-established critical dates are firm, fixed dates and are nonnegotiable. Further, it is recognized that maintaining the critical dates detailed in the project schedule is essential to the overall plan as the driving force for timely completion of all primary tasks and supporting activities.

To ensure that the administration timeline provided in **Section 1.041** is met, the project management will be based on the processes as specified in the documents of the State Unified Information Technology Environment, focusing on the Project Management Methodology documents based on PMI's *A Guide to the Project Management Body of Knowledge* for this Contract. In addition, a customer-focused project approach will be employed by fully collaborating with MDE and other Contractors, throughout the project lifecycle. During all phases of a project, a focus will be placed on prevention and early detection of quality defects. The Contractor's industry expertise will be leveraged to work closely and iteratively with our client, MDE, and other Contractors in order to produce high-quality deliverables in a timely manner.

During kick-off meetings, the Contractor must collaborate with MDE and other Contractors to make all project details for an assessment cycle final with the goal of creating an overall, coordinated project plan for the cycle that includes all deliverables for this Contract. . Additionally, the Contractor must participate with the MDE in requirements gathering sessions for designated tasks and subtasks to create or update quality assurance plans and develop user acceptance test plan documents. Working with the MDE, the Contractor must schedule user acceptance tests for critical tasks.

Because the Contractor understands that managing a project to result in timely and high-quality deliverables involves prevention, detection, and action, project management tools and techniques will be used to keep the full range of the administrative plan on schedule throughout each cycle. A sample of these tools and techniques are provided as follows:

- Kickoff and Annual Meetings
- Management Meetings
- Executive Management Meetings
- Weekly Conference Calls
- Risk Management Plan and Procedure
- Issue Management Plan and Procedure
- Change Management Plan and Procedure
- Written Project Plan
- MS Project Schedule
- SharePoint secure, password-protected data sharing website
- Weekly Status Reports
- Meeting Minutes
- Action Lists with assignments
- Overall Quality Assurance Management Plan
- Task Specific Quality Assurance Plans
- Task Specific User Acceptance Test Plans
- Deliverable Specific Checklists

Coordinating the use of these tools and techniques collaboratively with MDE and other Contractors will assist all project team members to move the tasks and subtasks so that critical milestone dates are met to ensure the accurate and timely production of all assessments, while minimizing risks that are inherent to the high-stakes testing environment.

The Contractor must work with the MDE to review administration plans and proposed weekly and monthly schedules for regular project management and coordination updates. The Contractor acknowledges that agreed-upon escalation procedures, handling of change of scope requests and change control requests will receive MDE written pre-approval prior to implementation.