

MEMORANDUM

TO: Distribution

FROM: Ali Logmanni, Manager
Engineering Section
Office of Engineering and Construction

DATE: November 22, 2016

SUBJECT: Design Standards Supplement DST-16-03
Various Design Standards

Effective immediately, the following modifications shall be made to the MAA Design Standards Manual, dated April 2016:

A. Insert new Item 1.1, Proposal Preparation / Scoping Meeting / Scope of Services: General, 4.ii.2:

2. When preparing fee proposals for geotechnical investigation, Consultants shall note the following regarding their and/or subconsultant fees:
 - a. Contingency Percentage: Contingency fee is not acceptable and is not approvable. If extra work is requested/required, a fee supplement must be submitted to MAA for review and approval prior to conducting any additional work outside of the agreed upon scope.
 - b. Delay/Cancellation/Non-productive time: Fees associated with delays, cancellations, and /or non-productive time is not pre-approvable. A fee supplement with justification should be submitted to MAA for review and approval if the subconsultant experiences any unforeseen cancellations and/or delays caused by others.
 - c. Fees associated with administrative efforts such as obtaining security badge cannot be invoiced by the consultant/subconsultant.
 - d. 3rd Tier Subconsultant: MBE subconsultants cannot hire other subconsultants/vendors to perform work related to their scope of work. Charges associated with using 3rd tier subconsultants will not be compensated by MAA. See [Chapter 1.4.8, Adding New Subconsultants/Vendors Post Award](#).

B. Insert new Item 1.4, Invoicing. See attached document (Page 6 thru Page 10)

C. Item 3.1.1.2, Media (CDs/DVDs)

1. Remove the following from the fourth (4th) bulleted item under Item 3.1.1.2, Media (CDs/DVDs):

Contract or Task No:

MAA-CO-XX-XXX or Task XXXX.XX

Contract/Task Title:	_____
Report/Document Title:	_____
Consultant Name and Address/Logo	_____
Airport Logo:	<i>BWI Marshall and/or MTN AIRPORT</i>
Submittal Type and Submittal Date:	<i>MONTH, DAY, YEAR</i>
File Formats:	_____
CD Prepared Date:	_____
CD # / Total in Set:	<i>X of XX</i>

2. Remove the fifth (5th) bulleted item under Item 3.1.1.2, *Media (CDs/DVDs)* in its entirety.
3. Remove Standard CD label under Item 3.1.1.2, *Media (CDs/DVDs)* and replace with the attached document (Page 11).

D. Remove bulleted items under Item 3.1.2, *Electronic Documents Containing Sensitive Security Information (SSI)* and replace with the following:

- The Consultant shall prepare two distinct CD/DVD's for any project containing SSI: one containing only non-SSI content and one containing only SSI content. Both CD/DVD's shall follow the format described in Chapter [3.1.1.3 Folder Structure for Bid Documents](#).
- Non-SSI CD/DVD: This disk shall contain all non-SSI information only. The following "SSI Notice" shall be included on the non-SSI disk as a substitute for each SSI document. The intent of the SSI Notice is to direct the user to the disk containing SSI. This requirement shall apply to CADD and non-CADD deliverables. Because there is no SSI content on this disk, the SSI identification statement shown on the sample CD/DVD label in [Chapter 3.1.1.2 Media \(CDs/DVDs\)](#) shall be deleted.
- SSI CD/DVD: This disk shall contain all SSI information only. The files and folder structure shall be compressed in a ".zip" file. The ".zip" file shall be password protected. The SSI CD/DVD shall contain this password protected ".zip" file. See [Chapter 6.1.3.3 SSI General Requirements](#) for password requirements. The CD/DVD label for this disk must contain the required SSI identification statement in accordance with [Chapter 3.2 Deliverables by Design Phase](#). See sample CD/DVD label in [Chapter 3.1.1.2 Media \(CDs/DVDs\)](#).
- SSI CD/DVD: Reports/Studies containing SSI shall be password protected even if the report also contains non-SSI information.
- When submitting files through the AIRPortal Document Manager (ADM) application, SSI files shall not be password protected. ADM will automatically detect and mark files as SSI based on the file names. See [Chapter 3.3 Standard File Naming Conventions](#) for file naming requirements.

E. Remove the following from Item 3.4.3.1, *Designer of Record Signature Requirements*:

All record drawings shall be sealed by a Maryland Licensed Design Professional (registered Professional Engineer or Architect) as the Designer of Record in the designated space.

F. Insert the following new Item 3.4.4, Signature Requirements for Conformed Construction Documents:

All conformed drawings shall be signed and sealed by a Maryland Licensed Professional (Registered Professional Engineer or Architect) as the Designer of Record in the designated space.

G. Remove Paragraphs 1 thru 3 under Item 3.7.1, Design Reports and Studies and replace with the following:

All design reports and studies shall follow the format shown in the standard template available on AirPortal>Designer Tools. Template includes:

- Cover page
- Table of Contents
- Section I. Executive Summary
- Section II. Design/Study Report
- Section III. Appendices – Appendices include, but not limited to, meeting minutes, review comments and responses, cost estimate, exhibits, geotechnical report.
- Section IV. Design Report General Information

H. Insert the following to Item 3.7.2, Geotechnical Reports:

Geotechnical investigations shall be performed in accordance with Chapter 7.1.3 Geotechnical Investigations.

I. Remove Item 3.7.2.1, Hardcopy Submission and replace with the following:

The final Geotechnical Report shall be submitted to the MAA Project Manager as an appendix to the Engineer's Report.

J. Remove Item 3.7.2.2, Digital Submission and replace with the following:

The consultant shall submit the final Geotechnical Report in electronic format described below, to the MAA Archive using MAA's web application AIRPortal Document Manager (ADM). The requirements for submission using ADM are:

- Full Report, as one multipage PDF document. Geotechnical Report shall be submitted both in the Engineer's Report and as a separate PDF document from the Engineer's Report on ADM.
- Individual logs, as one page PDF per log.
- Boring/Coring location plan in both PDF and DWG formats.

See [Chapter 3.3 Standard File Naming Conventions](#) for file naming requirements.

K. Insert the following to Item 7.1.3, Geotechnical Investigations:

The Consultant shall stipulate in their work plan that approximately 50% of proposed cores be performed specifically in areas displaying pavement distress. Full-depth cores are to be extracted unless directed otherwise. All cores taken will be used to evaluate the appropriate depth of milling and repairs, where applicable. The core results shall include location, thickness, and condition (crack depth, debonding, stripping, partial/full disintegration etc.) of the extracted cores along with the underlying material(s). The core pictures shall depict clear and actual in-situ conditions.

When only pavement coring is to be performed, a "grab sample" of the unbound material directly beneath the pavement core is to be collected and stored in a container such as a zip lock bag or a sample jar. The material/soil type shall be reported based on visual classification.

L. Insert new Item 9.4.9, Structured Recessed Expansion Joint Covers: Items D through F. See attached document (Page 12 thru Page 14).

M. Insert new Item 9.9.1.2, Elevator Doors:

Elevator doors shall be made of the following materials:

- A. Service/Freight Elevators – Diamond-plated/textured
- B. Passenger Elevators – Stainless Steel #14

N. Insert new paragraph under Item 9.9.2, LIFT-Net Monitoring System:

LIFT-Net installations shall be tested and working properly upon beneficial occupancy. Lift-Net Terminals monitoring equipment shall be available at the time of beneficial occupancy. The new/refurbished unit(s) must be visible and operating on the Airport's existing Lift-Net system on the MAA's computer terminals.

O. Insert new Item 11.7.1, Metering of Gas:

Gas meter shall be provided by each tenant. These meters must be compatible with MAA Power Monitoring System (Square-D Power Logic System). With prior coordination with MAA Utilities, RS 485 communication cable with one spare cable in one-inch conduit shall be extended from the meter to the nearest MAA Power Logic metering panel.

The gas meter shall be compatible with MOD BUS RTU – RS 485 protocol or MOD BUS RTU – TCP/IP protocol. The output gas reading displayed in Power Logic should be in units of Standard Cubic Feet per Minute (SCFM). Information for conversion from pulse rate to SCFM should be provided with meter specifications. Gas meter and any accompanying devices needing power should be compatible with power available on site.

P. Remove Volume 2, Item G.2, Adopted Codes and Standards and replace with the attached document (Page 15 thru Page 16).

Consultants listed herein are required to distribute this design standard to their respective staff and subconsultants.

If you believe the attached design standards conflict with any other codes or regulations, or if you should have any questions regarding this matter, please contact the Manager of Engineering Section at 410-859-7768.

Attachments

Distribution:

Mr. Charlie Baublitz (MAA)
Mr. Sagar Bethu (AECOM)
Ms. Robin Bowie (MAA)
Mr. Ned Carey (MAA)
Mr. Peter Charles (MAA)
Mr. Pat Corcoran (MAA)
Ms. Linda Dangerfield (MAA)
Mr. Peter Florian (PB)
Mr. Hamid Gazy (MAA)
Mr. Scott Harris (JMT)
Mr. Alex Houseal (TranSystems)
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Mr. Syed Shariq (MAA)
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Mr. Charles Steen (MAA)
Mr. George Steinrock (JMT)
Ms. Peggy Summers (Mimar)
Mr. John Stewart (MAA)
Ms. Madhuri Subramaniam (Baker)
Mr. Simon Taylor (MAA)
Mr. Jeff Tyley (Parsons)
Mr. Jim Walsh (MAA)
Mr. Scott Wardle (Baker)
Mr. Ralign Wells (MAA)
Mr. Alan Yazdani (AECOM)

**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION**

2016 MAA Design Standards Manual
Design Standards Supplement DST-16-03
Section 1.4, Invoicing

1.4 Invoicing

The following guidelines are for invoices submitted for A/E contracts with the Architecture and Engineering Sections of the Office of Engineering and Construction.

1.4.1 Electronic Submittal

1. All invoices for Architecture and Engineering Sections of the Office of Engineering and Construction shall be submitted electronically in PDF format as outlined below. MAA also reserves the right to request an original hard copy of the consultant's invoices.
2. All invoices shall be emailed to MAADesignInvoices@bwiairport.com. Additionally, send a copy of the email to the Manager of Engineering's point of contact for invoices.
3. All emails must contain "Invoice #XX, MAA-AE-XX-XXX" in the email subject line.
4. Electronically submitted invoices must be prepared in two (2) separate bookmarked files:
 - a. File #1 shall be labeled "Invoice #XX, MAA-AE-XX-XXX, Summary." This file shall contain and be bookmarked with the following pages in the order listed:
 - i. Cover Letter/Transmittal Letter
 - ii. Comment Form (if applicable)
 - iii. Contract Summary Sheet
 - iv. Task Billing Summary Sheet
 - v. Subconsultant Utilization Report (Prime Consultant Recap, MBE Subconsultant Detail)
 - vi. Subconsultant Utilization Report (Non-MBE Subconsultant Detail)
 - vii. Task/Subtask Summary Sheets in ascending order, excluding backups and roster
 - b. File #2 shall be labeled "Invoice #XX, MAA-AE-XX-XXX." This file shall include the entire invoice containing the following documents and bookmarked in the order listed:
 - i. Cover Letter/Transmittal Letter
 - ii. Comment Form (if applicable)
 - iii. Contract Summary Sheet
 - iv. Task Billing Summary Sheet
 - v. Subconsultant Utilization Report (Prime Consultant Recap, MBE Subconsultant Detail)
 - vi. Subconsultant Utilization Report (Non-MBE Subconsultant Detail)
 - vii. Task/Subtask Summary Sheets including backup documentation (timesheets, labor reports, direct expenses, subconsultant invoices) behind their respective Task Summary Sheet. Charges associated with each specific task must be highlighted on the backup documents.
 - viii. Certified Payroll Roster

5. File #1 must be bookmarked by the Summary pages as one bookmark and each individual task/subtask separately bookmarked. Alternatively, each task/subtask and its respective backup documents could be submitted as an individual file under Folder #1 in ascending order.
6. If each task and its respective backup documents are submitted as an individual file under File #1, each task/subtask file must be labeled "Task/Subtask #XXXX.XX" in ascending order.
7. If the email attachments exceed 7 megabytes (Mb), the invoice may be submitted in two or more volumes via separate emails. Accordingly, the email subject line shall include the volume number and labeled "Invoice #XX, MAA-AE-XX-XXX, Vol 1" and "Invoice #XX, MAA-AE-XX-XXX, Vol 2" for the second email, etc.
8. All PDF files must be in 200 dots per inch (DPI).

1.4.2 Invoice Submission

1. In accordance with the Contract Agreements with MAA, invoices are required to be submitted on a monthly basis.
2. For failure by a consultant to submit approvable invoices on a monthly basis or comply with MAA's invoicing requirements, MAA reserves the right to require no new assignment to be authorized to the firm(s) in violation until such time that they are up-to-date on the invoice submittals and are in compliance with all applicable invoicing requirements.
3. If the invoices are not being submitted monthly, there must be a written explanation on the cover letter of such invoice(s) providing reasonable explanation for noncompliance.
4. All prime consultants and subconsultants must submit their invoices within one hundred eighty (180) days of providing services to the MAA. The MAA reserves the right to accept or reject any charge(s) submitted after one hundred eighty (180) days of providing services to the MAA. MAA will require written documentation/justification in order to consider reviewing such charges submitted beyond one hundred eighty (180) days of the current invoice date.
5. The MAA must receive invoices from consultants no later than two (2) business days of the invoice date; otherwise the invoice will not be accepted. Invoices must contain the current invoice date on the cover/transmittal letter and on all summary forms.
6. For any particular contract, no invoice shall be submitted to MAA until the previous invoice has been approved. Do not submit the next invoice unless an email is sent by MAA advising the approval of the current invoice.
7. All invoices must comply with the latest invoicing template provided by MAA.
8. All invoices for a contract must be numbered consecutively, starting with Invoice #1.
9. All invoices must have a current EFT and paper check "Remit to Address" on the cover letter of the invoice.
10. Resubmitted invoices must contain the MAA's Invoice Comment Form on the first part of the invoice with complete responses to each MAA comment.
11. No additional charges may be added to a resubmitted invoice unless it is as a result of the MAA's review comment. The Response Column of the Invoice Comment form must contain itemized and specific explanation for any changes to the original invoice amount.
12. Once a task has been closed by MAA, no further charges will be accepted under that task.
13. Invoice billing periods should be discrete with specific beginning and ending dates.
14. If there is a charge outside of the current billing period on an invoice, there must be a detailed explanation for the overlap on the invoice cover letter.
15. If there is no activity during a time period, note on the cover letter of the next submitted invoice, no activity during the time period of [INSERT DATE] to [INSERT DATE].
16. Invoices must be prepared using a minimum font size 10.
17. Invoices shall be submitted on paper size 8.5" x 11" only.

1.4.3 Labor

1. A certified payroll roster must be submitted by the prime consultant and subconsultant(s) with each invoice.
2. An acceptable payroll roster must include the following:
 - a. The legal name of every employee billed in the current invoice.
 - b. The classification of each employee billed in the current invoice (indicate merit raises and/or promotions as well as the effective date).
 - c. The billed rate(s) of each employee charged under the current invoice. Billed rates are subject to the maximum allowable for the contract, if applicable.
 - d. The effective date(s) of the billed rate(s) of each employee billed on the current invoice.
 - e. The name and signature of an appropriate company officer, certifying that the information submitted in the payroll roster is true and accurate.
 - f. A certified payroll roster must reflect the actual hourly rate paid to the employees.
3. Administrative services are considered as part of overhead by the MAA. The MAA will reject any billed administrative labor costs.
4. All hours billed must be within the invoice billing period. The invoice must show the start and end dates for the invoice period being billed.
5. MAA will not pay for any overtime charges performed without prior written approval of the MAA's Task Manager. Include a copy of MAA's overtime approval letter with the invoice backup for the task.

1.4.4 Timesheets

1. Every task must contain Labor Summary Sheet with a line at the bottom reading; *"I hereby certify that the information contained hereafter is true and correct."* The name and signature of a company officer must accompany this statement.
2. A labor summary sheet must be submitted for each task billed with all invoices submitted for payment.
3. Employee pay increases are capped at 6% in a twelve (12) month period. Annual (annual is referenced from the day of the signed contract agreement) and/or other pay increases of more than 6% will not be paid for by MAA. The 6% cap applies only to the unburdened hourly rate.
4. Prime consultants and subconsultants must provide backup for all labor in at least one of the following forms:
 - a. Manually-generated timesheets – Timesheets must be signed by both the employee and his/her supervisor. Additionally, timesheets must contain legal name of the employee and his/her supervisor.
 - b. Detailed Time Summary (Payroll Detail) – Payroll detail must contain the name and signature/approval of a company officer.
5. If timesheets are submitted with hours charged to multiple projects and tasks, the hours specific to the submitted invoice and task must be highlighted. All timesheets for a task must be submitted behind their respective Task/Subtask Summary Sheet.
6. All Prime Consultants' and subconsultants' paystubs for employees billed under an MAA contract are subject to inspection and review by MAA.
7. All-inclusive rates are fixed for the life of the contract. All-inclusive rates billed must be as originally approved by the MAA's Office of Procurement. All-inclusive rate changes must be approved in advance by the MAA Office of Procurement in the form of a contract amendment in advance.

1.4.5 Overhead

1. Overhead and profit charges for premium labor over forty (40) hours will not be paid by the MAA.
2. Prime consultants and subconsultants must provide an annual audited overhead rate prior to July 1st to the MAA for review and approval.
3. Consultants must identify all defaulted and all-inclusive subconsultant on the Progress Reports.
4. Audited overhead rates are to be applied for services provided as of the effective date approved by MAA and are not retroactive.
5. If a firm has not submitted its annual audited overhead report and is defaulted, no new work shall be assigned to such firm. The defaulted firm may continue to invoice MAA for previously approved work at the defaulted rate of 100% or the firm's original rate, whichever is lower.
6. If a defaulted firm later resolves its annual audited overhead rate, the approved audited overhead rates shall be applied for services provided as of the effective date approved by MAA and is not retroactive.

1.4.6 Direct Expenses

1. All direct expense reimbursements must follow the current State of Maryland guidelines. Please visit the following links for further details:
<http://dbm.maryland.gov/Pages/TravelManagementServices.aspx>
<http://dbm.maryland.gov/Pages/FleetManagementServices.aspx>
2. Per Diem expenses must be in accordance with MDOT policies and must involve overnight stay in order to qualify for reimbursement. Legible receipts are required for reimbursement.
3. Out of town travel must be explicitly included in the task fee proposal and sufficient detail must be provided regarding destination and person(s) traveling.
4. Airfare must be economy class. If economy class is not identified on the ticket, prior written approval must be received from the MAA Task Manager and a copy of the written approval must be included in the invoice task expense backup. If "Frequent Flyer" mileage is being used for an upgrade, the consultant must provide documents showing that the charge is for economy class.
5. The rate of mileage reimbursement is in accordance with the MDOT's approved rate at the time mileage expense was incurred.
6. The MAA only reimburses mileage for work directly related to the contract/task.
7. Prime consultants and subconsultants must submit a mileage log for all mileage charges, indicating start and end destinations and purpose of travel.
8. Mileage is to be calculated based on the shortest possible distance from the prime consultant's contract home office to the project site.
9. Prime consultants and subconsultants must provide legible receipts for all direct expenses. Expense receipts should contain the name of the business/vendor, the date the expense was incurred, and the amount of the expense. Write the respective task number on each receipt.
10. The MAA will disallow all mileage expenses incurred on days without corresponding labor hours.
11. Books/Publication, software, hardware, and other purchases charged to the "Out of Pocket" expenses must be approved by the MAA's Task Manager and must be turned over to the MAA upon completion of the task.

1.4.7 Contract and Task Upset Limits

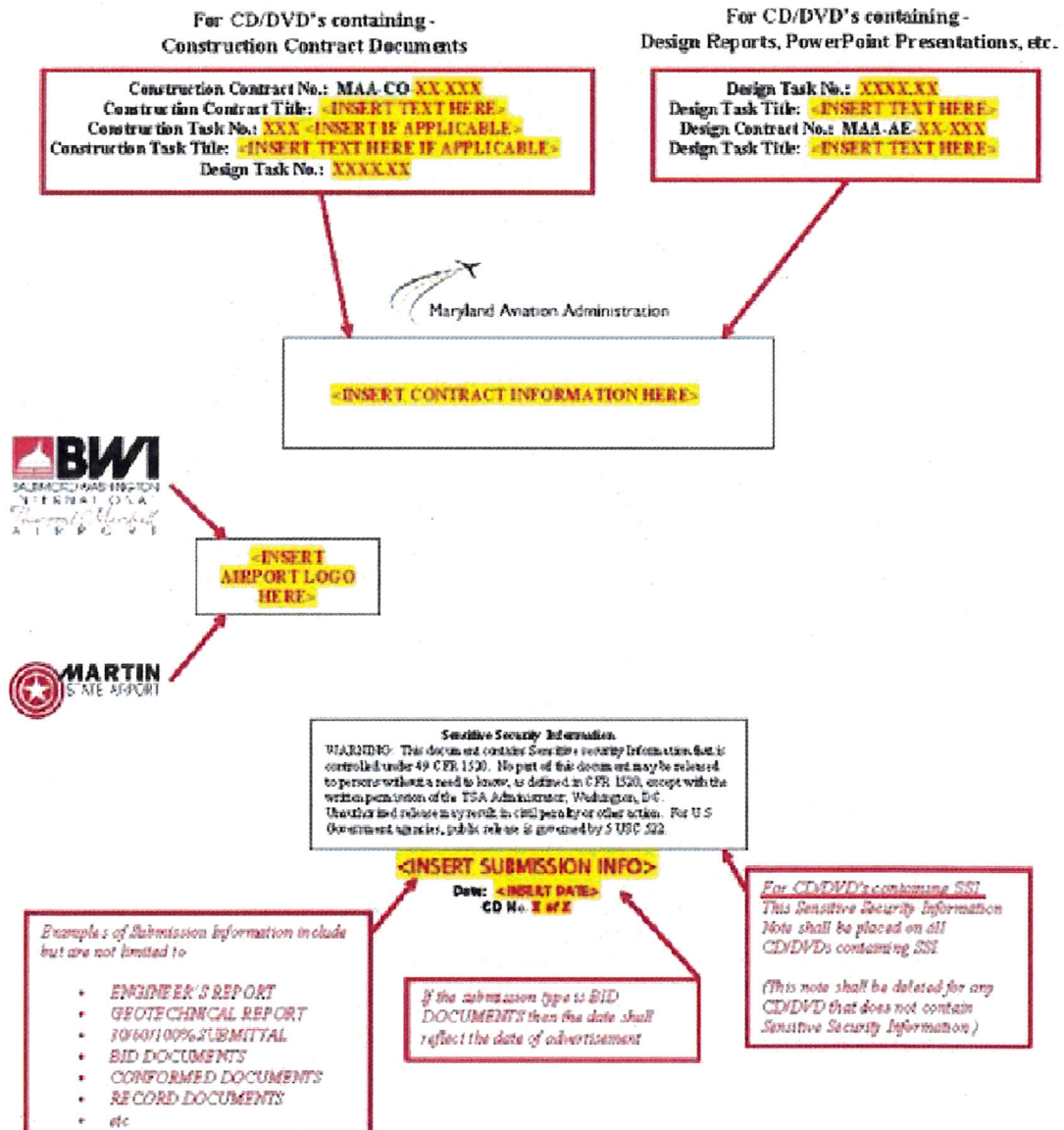
1. Prime consultants and subconsultants must comply with the approved contract and task upset limits, including the limits of their respective contract budget and task budget breakdown by phase.

2. In cases where a line item under a contract/task budget breakdown exceeds the maximum allocated funds, the prime consultants must submit a detailed explanation for all reallocation of the funds for each line item within the contract/task budget in a reallocation letter. The MAA reserves the right to accept or reject submissions for contract/task budget reallocations. The MAA will not allow any increases in fixed fees from contract/task budget reallocation(s).
 3. The MAA will not accept invoices related to a submitted contract/task budget reallocation letter without prior approval of the submitted reallocation letter.
 4. All funds allocated to MBE's must remain with the respective MBE firm for the life of the contract, unless approved by the Office of Fair Practices in writing.
- 1.4.8 Adding New Subconsultants/Vendors Post Award
1. MAA will reject any invoice(s) that include any subconsultant and/or vendor that has not been approved in advance by MAA Engineering Manager and added to the contract through a contract amendment issued by the Office of Procurement.
 2. Charges incurred by a subconsultant or a vendor not formally added to the contract are not reimbursable and such charges are not retroactive.
 3. A consultant cannot obtain credit for an MBE subconsultant added to the contract post award until approval is obtained by the Office of Fair Practices.
 4. Consultants, subconsultants, and/or vendors are not allowed to utilize the services of a third tier firm. Such charges will not be reimbursed by MAA.
- 1.4.9 Points of Contact
1. All consultants must identify a primary and alternate point of contact for MAA to communicate with regarding invoice matters. These points of contact's name, email address, and phone numbers shall be shown on the invoice cover letter.
 2. Consultants shall only communicate with the MAA's point of contact regarding their invoices. Contact the Manager of Engineering for the MAA's point of contact information.

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

2016 MAA Design Standards Manual
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Section 3.1.1.2, Media (CDs/DVDs)

Sample CD/DVD Disk Label



NOTE: CD/DVD label for all submissions shall have a plain white background (NO GRAPHIC)

**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION**

2016 MAA Design Standards Manual
Design Standards Supplement DST-16-03
Section 9.4.9, Floor Structure Recessed Expansion Joint Covers

D. Interior Floor Expansion Joint Covers and Assemblies

1. General: Floor expansion joint covers required to bridge building structure expansion joints must be of a type recommended by manufacturers for installation in airports, and capable of withstanding the loads imposed by airport pedestrian traffic; wheeled carts of various capacities and wheel types; pallet trucks; trolleys; and commercial ride-on floor cleaning equipment. Covers must be all-metal design, flush with adjacent floor finishes such as tile and terrazzo to avoid tripping hazards, and textured or striated for slip resistance. Set expansion joint covers adjacent to carpeted floors slightly below the finished height of carpet to compensate for carpet crushing and wear.
2. Expansion joint assemblies consist of an approved expansion joint cover and fire barrier.

E. Expansion Joint Covers

1. Solid cast or extruded aluminum, or combination, no-bump type expansion joint covers are required. Minimum product design characteristics and performance requirements include the following:
 - Material: Heavy-duty interlocking aluminum extrusions.
 - Movement: Three-way.
 - Load Capacity: Minimum 1450 psi for solid rubber tires.
 - Capable of spanning width of expansion joint.
 - Designed to reduce noise, and resist passage of liquid spills and accumulation of dirt in movement joints.
 - Americans with Disabilities Act (ADA) compliant.
2. Installation Accessories: Factory-fabricated closure materials, intersections, and similar accessories required for a continuous expansion joint system. Isolate aluminum components from concrete and dissimilar metals following expansion joint cover manufacturers' recommendations and details.
3. Expansion joint covers incorporating elastomeric materials in the design of the wearing surface, including santoprene, have not been capable of withstanding the conditions at the airport. Aluminum extrusions of this type of cover are generally thin-walled and susceptible to damage. Additionally, elastomeric extrusions tear easily and are often of a unique design. Obtaining matching replacements of the

correct design has proven to be difficult for airport maintenance. Expansion joint covers of this type are not permitted.

F. Fire-Resistance-Rated Expansion Joint Assemblies

1. General: Floor fire-resistance-rated expansion joint assemblies must be of a type that is an approved fire-resistant joint system, designed to resist the passage of fire for a time period not less than the required fire resistance rating of the airport terminal floor, or other horizontal fire separation assembly. Where expansion joint covers are a part of fire-resistance-rated horizontal construction, expansion joint covers do not contribute to the overall fire-resistance rating of the floor assembly. Details must provide for the installation of the expansion joint covers, and not less than the minimum thicknesses of floor materials required to install the fire-resistant joint material in compliance with assemblies tested by laboratories recognized by the MAA Fire Prevention Division. For example, if the tested assembly requires a minimum four-inch depth of concrete either side of the fire-resistant joint material, the overall concrete depth at the expansion joint must be increased by the depth required for flush installation of the joint cover. Generally, the overall required thickness of concrete at the expansion joint will be greater than the thickness required for a fire-resistance-rated composite slab.
2. Fire Barrier Joint Material: Manufactured product consisting of a combination of traffic-bearing silicone top layer applied to a fire-retardant-impregnated foam core and intumescent bottom layer. Joint material is adhered to the edges of concrete floor slabs. Factory pre-formed transitions to reduce or eliminate field cutting are required wherever possible. Completed installation must be designed to produce a fire-resistance-rated watertight joint.

Bellows type fire barriers are not permitted, unless otherwise accepted by MAA. These types of joints have become travel paths for various pests, and should be avoided.

3. Fire-Resistant Joint Design: Joint designs cannot include permanent metal concrete pour stops without greatly reducing the required fire-resistance rating of the horizontal assembly. Metal acts as a thermal bridge, resulting in premature failure of the joint when tested. Expansion joint details should indicate removal of the pour stops, or alternative methods of controlling concrete pours during construction.

Note that many existing structural expansion joints utilized metal pour stops that were left in place. In order to comply with fire-resistance-rated horizontal separation requirements, these pour stops may have to be removed. Additionally, concrete slab thicknesses may not comply with tested assembly details. In existing construction, extraordinary measures may be required to sawcut pour stops and thicken slab at expansion joints.

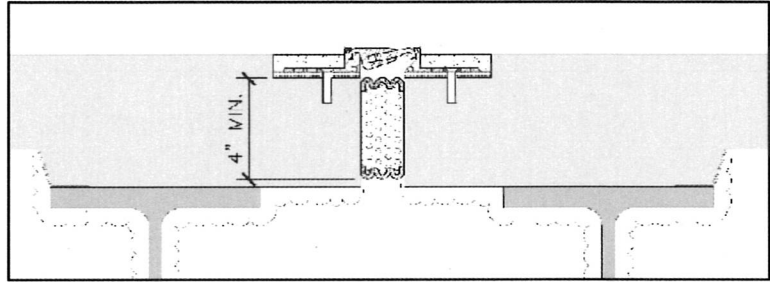


Figure 1 **Representative expansion joint cover and fire barrier.**

4. **Non-Conforming Joint Designs:** Although not recommended or encouraged, Designers, in consultation with MAA Fire Prevention Division and the expansion joint manufacturer's technical support, may seek to obtain an engineering judgment, prepared by a registered fire protection engineer (FPE), for joint designs not in full compliance with laboratory-tested assemblies. The FPE need not be registered in the State of Maryland, but must be certifying design on behalf of the expansion joint manufacturer.

**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION**

2016 MAA Design Standards Manual
Design Standards Supplement DST-16-03
Section G.2, Adopted Codes and Standards

G.2 Adopted Codes and Standards

Code	Edition
State of Maryland Fire Prevention Code	2015 with State Fire Code amendments/modifications effective 1/1/2016
International Building Code (IBC)	2015 with DLLR/DHCD modifications
International Plumbing Code (IPC)	2015
International Mechanical Code (IMC)	2015 with DLLR/DHCD modifications
International Existing Building Code (IEBC)	2015
International Residential Code (IRC)	2015 with DLLR/DHCD modifications
International Energy Conservation Code (IECC)	2015

Applicable COMAR (Code of Maryland) Regulations:

COMAR	Title	Date
05.02.01	Maryland Model Performance Code	01 January 2013
05.02.02	Maryland Accessibility Code	2012
05.02.07	Maryland Building Performance Standards (MBPS)	01 January 2015

09.20.01	Maryland State Plumbing Regulations	13 May 2013
29.06.01.07	State Fire Prevention Code	2015 with State Fire Marshal Amendments

The above applicable COMAR Regulations incorporate by reference, and contain amendments to the following Model Codes:

Code	Edition
International Building Code (IBC) (regarding elevators and conveying systems, safety glazing)	2015 with DLLR modifications
International Mechanical Code (IMC)	2015 with DLLR/DHCD modifications
NFPA 1, Fire Code	2015 with State Fire Marshal
NFPA 54, National Fuel Gas Code	2012 with DLLR modifications
NFPA 58, Liquefied Petroleum Gas Code	2011 with DLLR modifications
NFPA 70, National Electrical Code	2014 with DLLR/DHCD modifications
NFPA 101, Life Safety Code	2015, with State Fire Marshal
Americans with Disabilities Act Accessibility Guidelines	15 September 2010 and amended
National Standard Plumbing Code	2012 with DLLR modifications