AGREEMENT

BETWEEN

THE BOARD OF REGENTS OF THE TEXAS A&M UNIVERSITY SYSTEM

AND

STANTEC ARCHITECTURE INC.,

ARCHITECT/ENGINEER

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THE BOARD OF REGENTS OF THE TEXAS A&M UNIVERSITY SYSTEM
AND
STANTEC ARCHITECTURE INC.,
ARCHITECT/ENGINEER

This Agreement is effective as of April 21, 2020 (the "Effective Date"), by and between the **BOARD OF REGENTS OF THE TEXAS A&M UNIVERSITY SYSTEM** ("Owner") and **Stantec Architecture Inc.**, Architect/Engineer (the "Architect/Engineer" or "A/E") for the: Engineering Classroom and Research Building (EnCARB) construction project (the "Project").

Owner intends to construct the Project at Prairie View A&M University, Prairie View, Texas, for which, under a total cost allocation, Fifty-Two Million, Five Hundred Thousand and no/100 dollars ($52,500,000.00) is the Amount Available for the Construction Contract ("AACC").

Article 1
Architect/Engineer's Services and Responsibilities

The Architect/Engineer shall provide the usual and customary Basic Services necessary and reasonably inferable to complete the Project and each phase of the project described in Paragraphs 1.2 through 1.6 below, along with any Additional Services requested by the Owner.

1.1 Architect/Engineer's **Basic Services**

1.1.1 **Basic Services.** The Architect/Engineer's Basic Services include all disciplines identified in Article 15 and all related usual and customary design, consultant, and other services necessary and reasonably inferable to complete the Project, or any phase of the Project, in accordance with the Owner's requirements and the terms of this Agreement.

1.1.2 **Reimbursable Services.** Reimbursable Services are the services specifically identified in Paragraph 15.2 that are provided by the Architect/Engineer in conjunction with the delivery of Basic Services under this Agreement. Compensation for Reimbursable Services will be made when the services are complete.

1.1.3 The Program of Requirements (see Article 2) describes the intended project scope and character along with the anticipated Project Schedule and the Preliminary Project Cost. The Program of Requirements is incorporated herein by reference. It is the Architect/Engineer's responsibility to review and understand the requirements of the Program of Requirements and to perform professional services so as to achieve those objectives.

1.1.4 The Amount Available for the Construction Contract ("AACC") for this Project is specified in Article 15. The Architect/Engineer is responsible for managing the design of the Project so that the total construction cost does not exceed the Amount Available for the Construction Contract. Evaluations of the Owner's budget for the Project and Estimated

Construction Costs prepared by the Architect/Engineer represent the Architect/Engineer's judgment as a design professional familiar with the construction industry. Bids or negotiated prices may vary from the Owner's budget for the Project, or from the Estimated Construction Costs prepared or agreed to by the Architect/Engineer.

1.1.5 The Owner may require the Architect/Engineer to provide services for the Project in up to three packages. Each package shall have a unique AACC, which will be a part of the overall project AACC. The Architect/Engineer is responsible for managing the design of each package so that the total construction cost for such package does not exceed the AACC for that package. The Architect/Engineer is responsible for managing the design of the Project so that total contract costs of all packages do not exceed the Project's overall AACC.

1.1.6 The Architect/Engineer shall manage the design of the Project to achieve the Program of Requirements' objectives of scope and cost through completion and acceptance of the Construction Documents phase. The Architect/Engineer shall advise the Owner of any adjustments to the scope or quality of the Project necessary to comply with the Amount Available for the Construction Contract during design development as part of Basic Services.

1.1.7 The Architect/Engineer shall submit the names of all consultants, persons, or firms, that the Architect/Engineer proposes to use in the execution of its services and shall provide the Owner, upon request, with a fully executed copy of each contract or agreement that the Architect/Engineer enters into with any consultant. The Architect/Engineer is responsible for coordinating the work of all of its consultants such that their services are appropriate for and adequately incorporated into the design of the Project. The Owner reserves the right, in its sole discretion, to reject the employment by Architect/Engineer of any consultant for the Project to which Owner has a reasonable objection. Architect/Engineer, however, shall not be required to contract with any consultant to which it has a reasonable objection.

1.1.8 The Architect/Engineer shall pay for its consultants' services out of its fees. The Owner is not responsible for any consultant fees or costs unless expressly agreed to in writing.

1.1.9 The Architect/Engineer agrees on allocating work to subcontractors (consultants) as listed (or indicated) on their HUB Subcontracting Plan, in accordance with The A&M System Policy on Historically Underutilized Businesses. No changes to the HUB Subcontracting Plan may be made unless approved in writing by the Owner. While this Agreement is in effect and until the expiration of one year after completion, the Owner may require information from the Architect/Engineer, and may conduct audits, to assure that the HUB Subcontracting Plan is followed.

1.1.10 The Architect/Engineer shall, consistent with the AACC design the Project to incorporate current systems technology as appropriate to the stated mission of the institution and the programmed functional activities. The technology shall be compatible with any existing facility and acceptable to the Owner.

1.1.11 The Architect/Engineer shall perform its services in accordance with the Owner furnished "Facility Design Guidelines", a digital copy of which has been provided to Architect/Engineer and is incorporated herein by reference.

1.1.12 The Architect/Engineer shall design the Project in accordance with the approved Campus Master Plan, a copy of which will be made available to Architect/Engineer.

1.1.13 Basic design services shall include incorporation of the provisions of the Energy Conservation Design Standard for New State Buildings as administered by the State Energy Conservation Office (SECO), State Comptroller's Office of the State of Texas. Architect/Engineer shall provide the Owner with the SECO Compliance Certification and associated compliance documentation as required.

1.1.14 The Architect/Engineer, as part of Basic Services, shall provide an economic evaluation for the potential of renewable energy applications pursuant to SECO requirements using RETScreen International Clean Energy Project Analysis software. Analysis shall include solar energy, biomass energy, geothermal energy and wind energy.

1.1.15 Basic design services shall include analysis and incorporation of on-site water reclamation technologies, pursuant to Section 447.004 *Texas Government Code*. Architect/Engineer shall provide the Owner with the SECO Compliance Certification and associated compliance documentation as required.

1.1.16 The Architect/Engineer, as a part of Basic Services, shall employ sustainable design principles based on LEED 2009 as established by the U.S. Green Building Council. Specifically employ those principles pertaining to energy and water conservation and indoor environmental quality. Any energy modeling and/or daylighting studies, required to achieve these principles shall be included as part of Basic Services. If the Owner chooses to pursue certification, registration and documentation with the U.S. Green Building Council, any such services provided by the Architect/Engineer will be an Additional Service. The LEED Green Building Rating System and other similar environmental guidelines (collectively "LEED") utilize certain design and usability recommendations on a project in order to promote an environmental friendly and energy efficient facility. In addressing these guidelines, the Architect/Engineer shall perform its services in accordance with that degree of skill and care ordinarily exercised by similarly situated members of the Architect/Engineer's profession involved in the design of similar projects in the same locale as the Project.

1.1.17 Architect/Engineer shall use reasonable care consistent with the foregoing standard in interpreting and designing in accordance with LEED. Architect/Engineer shall not be responsible for Contractor's failure to adhere to the Contract Documents and any applicable laws, codes and regulations incorporated therein, nor for any changes to the design made by the Owner without the direct participation and written approval of the Architect/Engineer.

1.1.18 The Architect/Engineer, as a part of Basic Services, shall provide life cycle cost analysis of major systems and materials to optimize the operating, maintenance and initial costs as well as to support Paragraph 1.1.16.

1.1.19 The Architect/Engineer, as part of Basic Services, shall provide an estimate of construction cost at the project milestones identified in paragraph 15.6. The Architect/Engineers shall review the Estimated Construction Cost prepared by the Construction Manager during these design phases and shall compare and reconcile the estimates with the Construction Manager and

provide written comments. If the Estimated Construction Cost exceeds the Amount Available for the Construction Contract at any time, the Owner will determine whether to increase the Amount Available for the Construction Contract or require the Architect/Engineer to revise the Project scope or quality to comply with the Amount Available for the Construction Contract at no additional cost to Owner. Reductions in Project scope or quality are subject to Owner's review and approval. If the Estimated Construction Cost is below the Amount Available for the Construction Contract, the Owner and Architect/Engineer shall mutually agree on changes to the project scope or the Amount Available for the Construction Contract.

1.1.20 The Architect/Engineer shall submit documents to the Owner for review at completion of the Schematic Design and Design Development phases and at the stages of completion of the Construction Documents as described in Article 15. The Architect/Engineer shall incorporate into the documents such corrections and amendments as the Owner requests, unless the Architect/Engineer provides the Owner with the Architect/Engineer's reasonable objection to such corrections or amendments. The Architect/Engineer will be responsible for any damages incurred by the Owner to the extent they are found to be caused by Architect/Engineer's failure to incorporate requested corrections and amendments to the documents.

1.1.21 Owner will utilize a review and comment form to record all comments during the document reviews and will provide its review comments to Architect/Engineer. The Architect/Engineer shall provide a detailed written response to each of the Owner's review comments indicating where and how they have been addressed in the design documents. At each required document submittal stage, the Architect/Engineer shall include the completed comment form from the preceding submittal along with a cover letter signed by a firm principal affirming that the previous review comments have been fully addressed in the current submittal. Failure to respond to the previous comments or to provide the written affirmation may result in reduction or rejection of the Architect/Engineer's then current Statement for Architectural/Engineering Services until a proper response is obtained. Owner's approval of the revised drawing shall not be deemed to be an approval of any unlisted changes, and any costs or expense for any Architect/Engineer's additional services subsequently incurred for such unlisted changes shall be borne by Architect/Engineer.

1.1.22 The Architect/Engineer, as part of Basic Services, shall become sufficiently familiar with the existing facilities, systems and conditions at the Project site so that the proposed Project will properly interface functionally with them.

1.1.23 Architect/Engineer agrees and acknowledges that Owner is entering into this Agreement in reliance on Architect/Engineer's represented professional abilities with respect to performing Architect/Engineer's services, duties, and obligations under this Agreement. Architect/Engineer agrees to use Architect/Engineer's professional efforts, skill, judgment, and abilities in performing Architect/Engineer's services. Architect/Engineer shall perform its services diligently and shall endeavor to further the interest of the Owner in accordance with Owner's requirements and procedures. Architect/Engineer shall perform its services in accordance with the professional skill and care ordinarily provided by competent architects and engineers practicing in the same or similar locality and under the same or similar circumstances and professional license; and as expeditiously as is prudent considering the ordinary professional skill and care of a competent architect and engineer (the "Standard of Care"). Subject to this Standard of Care,

Architect/Engineer shall interpret and apply applicable national, federal, state, municipal, and State of Texas building and accessibility laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction in effect at the time the services are provided. There are no obligations, commitments, or impediments of any kind known to the Architect/Engineer that will limit or prevent performance by Architect/Engineer of its services. Architect/Engineer hereby agrees to correct, at its own cost, any of its services, and the services of its consultants, that do not meet the standard of care.

1.1.24 Architect/Engineer shall take reasonable precautions to verify the accuracy and suitability of any drawings, plans, sketches, instructions, information, requirements, procedures, requests for action, and other data supplied to Architect/Engineer (by Owner or any other party) that Architect/Engineer uses for the Project. Architect/Engineer shall identify to the Owner in writing any such documents or data which, in Architect/Engineer's professional opinion, are unsuitable, improper, or inaccurate in connection with the purposes for which such documents or data are furnished. Owner does not warrant the accuracy or suitability of such documents or data as are furnished unless Architect/Engineer advises Owner in writing that in Architect/Engineer's professional opinion such documents or data are unsuitable, improper, or inaccurate and Owner confirms in writing that it wishes Architect/Engineer to proceed in accordance with the documents or data as originally given.

1.1.25 Architect/Engineer's services shall be free from any material errors or omissions in accordance with the Standard of Care. Neither acceptance nor approval of Architect/Engineer's services by the Owner shall relieve Architect/Engineer of any of its professional duties or release it from any liability, it being understood that Owner is, at all times, relying upon Architect/Engineer for its skill and knowledge in performing Architect/Engineer's services. Owner shall have the right to reject any of Architect/Engineer's services because of any fault or defect in the Project due to any material errors or omissions in the Plans, Drawings, Specifications, and other materials prepared by Architect/Engineer or its consultants. Upon notice of any such errors or omissions, Architect/Engineer shall promptly provide any and all services necessary to correct or remedy them at no additional cost to the Owner. Architect/Engineer's obligation to correct its errors and omissions is in addition to, and not in substitution for, any other remedy for defective services which Owner may have at law or in equity, or both.

1.1.26 The Architect/Engineer shall not proceed to any phase of design not expressly authorized by the Owner, except at the Architect/Engineer's own financial risk.

1.1.27 Architect/Engineer agrees to furnish efficient business administration and superintendence and to use Architect/Engineer's professional skill to design the Project in an expeditious and economical manner consistent with the interest of Owner and Architect/Engineer's professional skill and care.

1.1.28 Architect/Engineer shall allocate adequate time, personnel and resources as necessary to perform its services. Architect/Engineer's Senior Principal(s) responsible for managing the Project is identified in Exhibit "A" and while employed by Architect/Engineer shall not be changed without the prior written approval of the Owner. The day-to-day Project Team will be led by the Senior Principal(s) unless otherwise directed by Owner or prevented by factors beyond the control of Architect/Engineer. The Senior Principal(s) shall act on behalf of

Architect/Engineer with respect to all phases of Architect/Engineer's Services and shall be available as reasonably required for the benefit of the Project and Owner.

1.1.29 Architect/Engineer shall review any applicable documents provided by the Owner and the visible existing conditions at the Project site to identify existing systems and construction which must be modified to accommodate the Architect/Engineer's design for the Project and the construction of the Project. The Architect/Engineer shall identify to Owner any observable discrepancies between the documents and visible conditions, and shall consult with the Owner on any special measures, services or further investigations required for Architect/Engineer to perform its services in accordance with the Standard of Care. This review shall be accomplished by registered, professional architects and engineers, as appropriate.

1.1.30 When the Project is subject to Texas Commission on Environmental Quality (TCEQ) regulations, Architect/Engineer shall coordinate all related design efforts, including the civil engineer and landscape architect, so that consideration of site design and Best Management Practices (BMP) are integrated.

1.1.31 Insurance Coverage. The Architect/Engineer shall obtain and maintain, for the duration of this Agreement or longer as stated in subparagraph D below, the minimum insurance coverages set forth below. With the exception of Professional Liability (E&O), all coverage shall be written on an occurrence basis. All coverage shall be underwritten by companies authorized to do business in the State of Texas or eligible surplus lines insurers operating in accordance with the Texas Insurance Code and have a financial strength rating of A- or better and a financial strength rating of VII or better as measured by A.M. Best Company or otherwise acceptable to Owner. By requiring such minimum insurance, the Owner shall not be deemed or construed to have assessed the risk that may be applicable to the Architect/Engineer under this Agreement. The Architect/Engineer shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverages. The Architect/Engineer is not relieved of any liability or other obligations assumed pursuant to this Agreement by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types. No policy will be canceled without unconditional written notice to Owner at least ten days before the effective date of the cancellation.

Coverages	Limit
A. Worker's Compensation	
Statutory Benefits (Coverage A)	Statutory
Employers Liability (Coverage B)	$1,000,000 Each Accident
	$1,000,000 Disease/Employee
	$1,000,000 Disease/Policy Limit

Workers' Compensation policy must include under Item 3.A. on the information page of the workers' compensation policy the state in which work is to be performed for [Member]. Workers' compensation insurance is required, and no "alternative" forms of insurance will be permitted.

B. Automobile Liability	
Owned Vehicles	$1,000,000

Non-owned Vehicles	$1,000,000
Hired Vehicles	$1,000,000

Business auto liability insurance covering all owned, non-owned or hired automobiles, with limits of not less than $1,000,000 single limit of liability per accident for bodily injury and property damage.

Option: If a separate business auto liability policy is not available, coverage for hired and non-owned auto liability may be endorsed on the commercial general liability policy

C. Commercial General Liability

Aggregate Limit	$2,000,000
Each Occurrence Limit	$1,000,000
Premises and Operations	$1,000,000
Personal/Advertising Injury	$1,000,000
Products/Completed Operations	$1,000,000
Damage to rented Premises	$ 300,000
Medical Payments	$ 5,000

D. Professional Liability (E&O)

The Architect/Engineer shall maintain Professional Liability; covering wrongful acts, errors and/or omissions, including design errors of the Architect/Engineer for damages sustained by reason of or in the course of performance of this Agreement for three (3) years after the Project is substantially complete. The professional liability insurance shall be in an amount based on the AACC and determined by the following chart:

AACC	Limit
$0 - $20,000,000	$1,000,000 each claim/$ 2,000,000 aggregate
$20,000,001 - $60,000,000	$2,000,000 each claim/$ 4,000,000 aggregate
$60,000,001 - $90,000,000	$3,000,000 each claim/$ 6,000,000 aggregate
$90,000,001 - $120,000,000	$4,000,000 each claim/$ 8,000,000 aggregate
$120,000,001 – higher	$5,000,000 each claim/$10,000,000 aggregate

1.1.32 Architect/Engineer shall include The Texas A&M University System Board of Regents, The Texas A&M University System and Prairie View A&M University as additional insured on the Commercial General Liability and Automobile Liability policies, and the Workers' Compensation policy shall include a waiver of subrogation in favor of the Owner.

1.1.33 The Owner has or intends to select a Construction Manager for this Project (the "Construction Manager" or "Contractor"), and the Architect/Engineer shall coordinate its services and work collaboratively with the Construction Manager. The Owner may direct the Architect/Engineer to recognize the Construction Manager as its representative for the performance of various duties which are otherwise defined as the responsibility of the Owner. Architect/Engineer hereby acknowledges such appointment. Upon request, Architect/Engineer shall be entitled to review a redacted version of the agreement between the Owner and the Construction Manager for this project (the "CMAR Agreement"). Nothing in the CMAR Agreement shall confer direct responsibility on the Construction Manager for the

Architect/Engineer's services, nor shall anything contained therein diminish Architect/Engineer's responsibility for its services as set forth hereunder. Likewise, nothing in the CMAR Agreement shall confer direct responsibility on the Architect/Engineer for the Construction Manager's services, nor shall anything contained therein effect the Architect/Engineer's responsibility for and scope of its services as set forth hereunder.

1.1.34 The Owner may select a Program Manager for this Project, and the Architect/Engineer shall coordinate its services with the Program Manager. The Owner may direct the Architect/Engineer to recognize the Program Manager as its representative for the performance of various duties which are otherwise defined as the responsibility of the Owner. Architect/Engineer hereby acknowledges such appointment.

1.1.35 The Architect/Engineer shall participate in the development and review of the Construction Manager's GMP Proposal. The GMP Proposal will include the qualifications, assumptions, exclusions, value engineering and all other requirements identified within the CMAR Agreement. Following Owner's approval of the GMP Proposal, the Architect/Engineer shall be responsible for developing the Construction Documents, consisting of Plans and Specifications, setting forth in detail, and incorporating the aforementioned requirements identified in the CMAR Agreement and contained in the GMP Proposal. Furthermore, the Architect/Engineer shall be sufficiently knowledgeable of the Construction Manager's GMP Proposal so as to reasonably understand the contents of the GMP Proposal and ultimately confirm to the best of the Architect/Engineer's ability that the Construction Documents, when complete, reflect all qualifications, clarifications and assumptions contained within the GMP Proposal. The Architect/Engineer and the Construction Manager shall jointly provide a monthly status report stating the progress of the incorporation of the GMP qualifications, clarifications, assumptions, exclusions and value engineering and all other requirements into the Construction Documents.

1.1.36 The Architect/Engineer shall utilize Building Information Modeling (BIM) authoring software and BIM based design processes to produce model(s) for this project. The Architect/Engineer shall be knowledgeable of BIM use for all phases of the design and utilize data, graphics, and drawings derived from the model for decision making support and construction documentation as part of Basic Services. The Building Information Modeling (BIM) software shall be compliant with Industry Foundation Class file format.

1.1.37 BIM is defined in the National Building Information Modeling Standard as a digital representation of physical and functional characteristics of a facility. As such it serves as a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle from inception onward. A basic premise of BIM is collaboration by different stakeholders at different phases of the life cycle of a facility to insert, extract, update or modify information in the BIM process to support and reflect the roles of that stakeholder. The BIM is a shared digital representation founded on open standards for interoperability.

1.1.38 During the design process the model(s) shall, at a minimum be utilized for Design Authoring, Design Reviews, Space Tracking, Cost Estimation, 3D Coordination, Facilities Management Data and Record Modeling.

1.1.39 During the bidding process the design team shall be required to provide the models and derived drawings to all proposers upon request.

1.1.40 During the construction process it is intended that the contractor utilize the model(s) for 3D Coordination, Fabrication and Facilities Management Data.

1.1.41 The Architect/Engineer shall develop a project BIM Execution Plan documenting BIM uses, analysis technologies and workflows. The BIM Execution Plan shall be submitted to the Owner within 30 days of the execution of this Agreement.

1.1.42 The Architect/Engineer shall track the design net and gross square footage during design from the Program of Requirements through Construction Administration in an Excel format acceptable to Owner. is.

1.1.43 The Architect/Engineer shall utilize Owner's project management software applications e-Builder® and BIM360 Build as the primary systems for all project documentation through all phases of the Project. Architect/Engineer shall follow Owner's guidelines on the use of e-Builder® and BIM360 Build.

1.1.44 The Architect/Engineer shall at each stage of review described in Paragraph 15.7 follow the naming standards set forth in the Facility Design Guidelines and upload to e-Builder® and BIM360 Build all Drawings, Specifications and basis of design in PDF file format. The Architect/Engineer shall, in addition to PDF format, upload to e-Builder® model(s) and drawings in native file format (i.e. RVT and DWG) of the final submission of Schematic Design, Design Development and Construction Documents,. The Architect/Engineer shall incorporate into the model(s), Drawings and Specifications such changes as are necessary to satisfy the Owner's written review comments or published meeting minutes, any of which may be appealed in writing for good cause.

1.1.45 Architect/Engineer, at the Architect/Engineer's expense, at each stage of review described in Paragraph 15.7, shall furnish and deliver to the Owner the number of complete printed copies of all Drawings, Specifications and basis of design as enumerated in paragraph 15.7, which copies shall become the property of the Owner. The Architect/Engineer shall pay for the reproduction of all Plans, Specifications and other documents for use by the Architect/Engineer and its consultants.

1.1.46 The Architect/Engineer shall cooperate and coordinate design and construction services with other services provided to Owner under separate contracts. Separate contracts may include, but are not necessarily limited to, the following:

a). Owner supplied furnishings and equipment.
b). Owner's document review services.
c). Owner's quality assurance services.

1.1.47 As a part of Basic Services, the A/E shall, in accordance with Tx. Govt. Code Chapter 2252 specify iron and steel products that are produced in the United States. The A/E shall notify the Owner of any specified iron and steel product not produced in the United States. The

A/E shall also advise the Owner if any of the exemptions identified in Chapter 2252 such as availability and quality might apply.

1.2 **Schematic Design Phase**

1.2.1 Based on the mutually agreed upon Program of Requirements, Amount Available for the Construction Contract and the Project Schedule, the Architect/Engineer shall prepare sufficient alternative approaches utilizing BIM for design and construction of the Project to satisfy Owner's project requirements and shall, at completion of this phase, submit Schematic Design Documents derived from the model in accordance with the BIM Execution Plan, "Facility Design Guidelines" and any additional requirements set forth in Article 15. The Architect/Engineer shall review alternative approaches to design and construction for the Project as they are being modeled at intervals appropriate to the progress of the Project with the Owner and Construction Manager at the Project site or other location specified by the Owner within the State of Texas. The Architect/Engineer shall utilize the model(s) to support the review process during Schematic Design. The Architect/Engineer shall provide the Construction Manager with a compact disc containing documents and data files derived from the model to assist the Construction Manager in fulfilling its responsibilities to the Owner.

1.2.2 Architect/Engineer shall provide all services necessary to perform the services of this phase (preparation of model(s), relevant data, decision support model views and Schematic Design Documents) including, without limitation, unless otherwise approved by Owner, the preparation and prompt delivery of all items specified in the BIM Execution Plan and "Facility Design Guidelines".

1.2.3 Architect/Engineer shall work closely with Owner in preparation of schematic drawings and shall specifically conform to Owner's requirements regarding aesthetic design issues.

1.2.4 The Architect/Engineer shall review the Estimated Construction Cost prepared by the Construction Manager, and shall provide written comments.

1.2.5 Before proceeding into the Design Development Phase, the Architect/Engineer shall obtain Owner's written acceptance of the Schematic Design documents and approval of the Architect/Engineer's preliminary Estimated Construction Cost and schedule.

1.2.6 The Architect/Engineer shall participate in a final review of the Schematic Design Documents and model(s) with the Owner and Construction Manager at the Project site or other location specified by Owner in the State of Texas. Prior to the Owner's approval of the Schematic Design Documents, the Architect/Engineer shall incorporate such changes as are necessary to satisfy the Owner's review comments, any of which may be appealed for good cause.

1.3 **Design Development Phase**

1.3.1 Based on the approved Schematic Design Documents, model(s) and any adjustments to the Program of Requirements, BIM Execution Plan or Amount Available for the Construction Contract authorized by the Owner, the Architect/Engineer shall prepare, for approval by the Owner and review by the Construction Manager, Design Development Documents derived

from the model(s) in accordance with Owner's written requirements to further define and finalize the size and character of the Project in accordance with the BIM Execution Plan, "Facility Design Guidelines" and any additional requirements set forth in Article 15. The Architect/Engineer shall review the Design Development documents as they are being modeled at intervals appropriate to the progress of the Project with the Owner and Construction Manager at the Project site or other location specified by Owner in the State of Texas. The Architect/Engineer shall utilize the model(s) to support the review process during Design Development. The Architect/Engineer shall provide the Construction Manager with a compact disc containing documents and data files derived from the model to assist the Construction Manager in fulfilling its responsibilities to the Owner.

1.3.2 As a part of Design Development Phase, Architect/Engineer shall accomplish model coordination, aggregation and "clash detection" to remove conflicts in design between systems, structures and components. Architect/Engineer shall demonstrate and provide written assurance to Owner that all conflicts/collisions between models have been resolved

1.3.3 The Architect/Engineer shall review the Estimated Construction Cost prepared by the Construction Manager in accordance with paragraph 1.1.19.

1.3.4 Before proceeding into the Construction Document Phase, the Architect/Engineer shall obtain Owner's written acceptance of the Design Development documents and approval of the mutually established Amount Available for the Construction Contract and schedule.

1.3.5 The Architect/Engineer shall prepare presentation materials including an animation derived from the model(s) as defined in "Facility Design Guidelines" at completion of Design Development and if so requested shall present same to the Board of Regents at a regular meeting where scheduled within the state.

1.3.6 The Architect/Engineer shall prepare preliminary recommended furniture layouts for all spaces where it is deemed important to substantiate the fulfillment of program space requirements, or to coordinate with specific architectural, mechanical and electrical elements.

1.3.7 Architect/Engineer shall assist the Owner, if requested, with seeking approval of the Project by the Texas Higher Education Coordinating Board (THECB). Such assistance shall include (i) the preparation of a listing of the rooms and square footages in the Project, and (ii) the preparation of project cost information, in accordance with THECB Guidelines. This information shall be provided at the completion of the Design Development Phase when requested by the Owner. The listing of rooms and square footages shall then be updated to reflect any changes occurring during construction and provided to the Owner at Substantial Completion.

1.3.8 At the completion of the Design Development Phase, or such other time as Owner may specify to Architect/Engineer, at Owner's sole option and discretion, Owner will furnish Architect/Engineer with a Guaranteed Maximum Price proposal prepared by Construction Manager based upon the Design Development documents prepared by the Architect/Engineer and approved by the Owner. The Architect/Engineer shall assist the Owner and endeavor to further and advocate the Owner's interests in Owner's communications with the Construction Manager in an effort to develop a Guaranteed Maximum Price proposal acceptable to Owner, in Owner's sole option and discretion. If the Owner does not accept the Construction Manager's Guaranteed Maximum Price

proposal, the Architect/Engineer shall participate with the Owner and Construction Manager in constructability reviews and shall revise the documents as necessary in order to reach an agreement. If the Construction Manager's Guaranteed Maximum Price proposal exceeds the Schematic Design Phase Estimated Construction Cost prepared by, or otherwise accepted by the Construction Manager due to an increase in the scope of the Project caused by further development of the design documents by the Architect/Engineer to the extent that such could not be reasonably inferred by the Construction Manager from the Schematic Design documents, and Owner directs Architect/Engineer to revise the documents, the Architect/Engineer shall revise the documents at its own expense so that the Guaranteed Maximum Price proposal for constructing the Project shall not exceed the Owner's Amount Available for the Construction Contract and any previously approved Estimated Construction Costs. If it is determined to be in the Owner's best interest, instead of requiring the Architect/Engineer to revise the Drawings and Specifications, the Owner reserves the right to accept a Guaranteed Maximum Price proposal that exceeds the stipulated Amount Available for the Construction Contract. The Architect/Engineer shall analyze the final Guaranteed Maximum Price proposal document, together with its supporting assumptions, clarifications, and contingencies, and shall submit a detailed written analysis of the document to the Owner. Such analysis shall include, without limitation, reference to and explanation of any inaccurate or improper assumptions and clarifications. The A/E will not be required to make revisions to the documents at its own expense under the provisions of this paragraph if the Owner's rejection of the Guaranteed Maximum Price proposal is not due to a failure of the A/E to provide the services otherwise required herein.

1.3.9 After the Guaranteed Maximum Price has been accepted, the Architect/Engineer shall incorporate necessary revisions into the Design Development documents. The A/E will not be required to make revisions to the documents at its own expense under the provisions of this paragraph if the revisions are required as the result of inaccurate assumptions and clarifications made in the development of the Guaranteed Maximum Price proposal that are not due to a failure of the A/E to provide the services otherwise required herein.

1.4 **Construction Document Phase**

1.4.1 Based on the approved Design Development Documents, Guaranteed Maximum Price, coordinated models and any further adjustments in the scope or quality of the Project or in the Amount Available for the Construction Contract authorized by the Owner, the Architect/Engineer shall prepare, for approval by the Owner and review by the Construction Manager, Construction Documents consisting of Drawings, Schedules and Specifications derived from the model(s) in accordance with Owner's written requirements setting forth in detail the requirements for construction of the Project, including, without limitation, the BIM Execution Plan and "Facility Design Guidelines". The Plans, Drawings and Specifications for the entire Project shall be so prepared that same will call for the construction of the building and related facilities, together with its built-in permanent fixtures and equipment which will cost not more than the Guaranteed Maximum Price accepted by Owner, or the Amount Available for the Construction Contract established by Owner if no Guaranteed Maximum Price proposal has been accepted by Owner. The Architect/Engineer will be responsible for managing the design to stay within such Guaranteed Maximum Price proposal or Amount Available for the Construction Contract. The Architect/Engineer shall review the Construction Documents as they are being prepared at intervals appropriate to the progress of the Project with the Owner and Construction Manager at the Project site or other location specified by Owner in the State of Texas. The Architect/Engineer shall utilize

the model(s) to support the review process during Construction Documents. The Architect/Engineer shall provide the Construction Manager with a compact disc containing documents and data files derived from the model to assist the Construction Manager in fulfilling its responsibilities to the Owner.

1.4.2 As a part of Construction Documents Phase, Architect/Engineer shall accomplish model coordination, aggregation and "clash detection" to remove conflicts in design between systems, structures and components. Architect/Engineer shall demonstrate and provide written assurance to Owner that all conflicts/collisions between models have been resolved.

1.4.3 The Architect/Engineer shall consult with the Owner and Construction Manager on matters such as construction phasing and scheduling, bid or proposal alternates, liquidated damages, the construction contract time period, and other construction issues appropriate for the Project. The Architect/Engineer shall assist the Owner and Construction Manager in the preparation of the necessary bidding information, bidding forms, RFP information, and RFP forms, and the Conditions of the Contract.

1.4.4 The Architect/Engineer shall assist the Owner in connection with the Owner's responsibility and procedures for obtaining approval of all building and accessibility authorities having jurisdiction over the Project.

1.4.5 The Architect/Engineer shall provide coordination and inclusion of sequence of operations for all operable systems in the facility as defined by Owner during Design Development.

1.4.6 The Architect/Engineer shall review the Estimated Construction Cost prepared by the Construction Manager in accordance with paragraph 1.1.19.

1.4.7 The Architect/Engineer shall participate in a final review of the Construction Documents and model(s) with the Owner and Construction Manager at the Project location or other location specified by Owner in the State of Texas. Prior to the Owner's approval of the Construction Documents, the Architect/Engineer shall incorporate such changes as are necessary to satisfy the Owner's review comments.

1.4.8 Before proceeding into the Bidding and Proposal Phase, the Architect/Engineer shall obtain Owner's written acceptance of the Construction Documents and approval of the Final Amount Available for the Construction Contract as approved by the Board of Regents.

1.5 **Bidding and Proposal Phase**

1.5.1 In conjunction with the development of the Guaranteed Maximum Price and at other times as appropriate to the Project, the Architect/Engineer shall assist the Owner and Construction Manager by receiving and recording requests for Bid and Request for Proposal ("RFP") Documents, receiving and resolving questions about Bid and RFP Documents; preparing addenda, issuing addenda, and accounting for addenda issued; attending pre-bid and pre-proposal conferences and HUB meetings; evaluating bids and proposals; and assisting in preparing and awarding multiple contracts for construction. Architect/Engineer shall answer inquiries from bidders and proposers

at Owner's request, and shall prepare and issue any necessary addenda to the bidding or proposal documents.

1.5.2 The Architect/Engineer shall assist the Construction Manager and Owner in investigating the responsibility of apparent low bidders or proposers and inform Owner in writing of its findings and recommendations. For proposers selected by qualifications and by competitive sealed proposals, the Architect/Engineer shall assist the Construction Manager and Owner in investigating qualifications and other pertinent proposal information and inform the Owner in writing of its findings and recommendations.

1.5.3 In the event the Guaranteed Maximum Price proposal received for the Project exceeds the Final Amount Available for the Construction Contract as approved by the Board of Regents,, if the Architect/Engineer is required to make revisions to the Contract Documents, the Architect/Engineer shall be entitled to compensation, as an Additional Service for changes to the Contract Documents that result from scope changes directed by the Owner that materially impact costs or revisions to the Contract Documents directed by the Owner that resulted in an increase in the AACC. The Owner reserves the right to accept a proposal and award a construction contract that exceeds the Final Amount Available for the Construction Contract, if such award is determined by Owner to be in the Owner's best interest.

1.6 **Construction Phase - Administration of the Construction Contract**

1.6.1 The Construction Phase shall commence with the acceptance of the Construction Manager's Guaranteed Maximum Price (or acceptance of a partial Guaranteed Maximum Price for a stage or phase) and issuance of a Notice to Proceed with Construction Services and terminate sixty (60) days after Final Payment to the Contractor is made, or when all of Architect/Engineer's services have been satisfactorily performed, whichever occurs later.

1.6.2 Architect/Engineer shall provide administration of the Contract for Construction as set forth below and in the edition of the BIM Execution Plan and "Facility Design Guidelines" current as of the date of this Agreement.

1.6.3 The Architect/Engineer shall provide updated documents derived from the model(s) at each Contractor's monthly meeting and when requested and as indicated in the BIM Execution Plan.

1.6.4 The Architect/Engineer shall review the Contractor's list of proposed subcontractors for the Work, initial administrative submittals for Project Schedule, Schedule of Values and Submittal Schedule to establish appropriate bases for construction monitoring, payment processing, and system commissioning. The Architect/Engineer shall identify necessary revisions to the documents in writing to the Contractor and recommend acceptance of the documents by the Owner when appropriate. The Architect/Engineer shall review periodic updates of all schedules with Owner and Contractor to evaluate appropriateness.

1.6.5 The Architect/Engineer shall have authority to act on behalf of the Owner to the extent provided in the Contract Documents. Duties, responsibilities and limitations of authority of the Architect/Engineer shall not be restricted, modified or extended without written acceptance of the Owner.

1.6.6 Site Visits. The Owner and Contractor will have weekly meeting during the construction period. The Architect/Engineer shall visit the site at least once each month during the entire construction period to observe the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. Each of Architect/Engineer's consultant shall visit the site at least once each month during construction activities related to the consultant's discipline to observe the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. Architect/Engineer and its consultants shall document its site visits and meetings in e-Builder®. The Architect/Engineer shall not be required to make exhaustive or continuous onsite visits to inspect the quality or quantity of the Work.

a) On the basis of the onsite observations, the Architect/Engineer shall keep the Owner informed of the progress and quality of the Work, and shall endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor. Architect/Engineer shall notify Owner and the Contractor in writing of any portions of the work which Architect/Engineer has observed as not being in conformity with the Construction Documents and make recommendations as to correction of the deficiencies or defects. Architect/Engineer shall make its site representative available and shall consult with Owner and the Contractor on the occasion of all circumstances arising during the course of construction which would make such consultation in Owner's interests.

b) In addition to site visits for general observation, the Architect/Engineer and its consultants shall visit the site for specific purposes related to certification of progress payments, pre-installation meetings, start-up or mock-up reviews for significant work activities and for formal inspections of the Work. The Architect/Engineer and its consultants shall provide written reports of all site visits to the Owner and Contractor.

1.6.7 The Architect/Engineer shall not have control or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the Work, or for the failure of any of them to carry out the Work in accordance with the Contract Documents.

1.6.8 The Architect/Engineer shall at all times have access to the Work wherever it is in preparation or progress.

1.6.9 The Architect/Engineer shall determine the amounts owing to the Contractor based on its periodic observations of Work placed at the site and on evaluations of the Contractor's Application for Payment, and shall coordinate its review and evaluation with the Owner's representatives, and shall certify Contractor's online Application for Payment in an appropriate amount.

1.6.10 The certification of a Contractor's Application for Payment shall constitute a representation by the Architect/Engineer to the Owner, based on the Architect/Engineer's observations at the site and on the data comprising the Contractor's Application for Payment, that the Work has progressed to the point indicated; that, to the best of the Architect/Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract

Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in the Contractor's Application for Payment); and that the Contractor is entitled to payment in the amount certified. However, the approval of a Contractor's Application for Payment shall not be a representation that the Architect/Engineer has made any examination to ascertain how and for what purpose the Contractor has used the monies paid on account of the Contract Sum.

1.6.11 The Architect/Engineer shall be the interpreter of the technical requirements of the Contract Documents and the judge of the performance of the work of the Contractor. The Architect/Engineer shall render interpretations necessary for the proper execution or progress of the Work with reasonable promptness on written request of either the Owner or the Contractor, and shall render written recommendations within a reasonable time, on all claims, disputes and other matters in question between the Owner and the Contractor relating to the execution or progress of the Work or the interpretation of the Contract Documents.

1.6.12 Interpretations and recommendations of the Architect/Engineer shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in written or graphic form.

1.6.13 Subject to approval of the Owner, the Architect/Engineer's decisions in matters relating to artistic effect shall be final if consistent with and reasonably inferable from the intent of the Contract Documents

1.6.14 The Architect/Engineer and its consultants shall review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, fabrication model(s), Product Data and Samples, but only for conformance with the design concept of the Work set forth in the Contract Documents, and shall respond to Contractor's inquiries and questions and provide supplemental information as appropriate. Action on submittals shall be taken with reasonable promptness to cause no delay to the Contractor's scheduled progress, but in any event no more than fourteen (14) days after receipt. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component. The Architect/Engineer's review shall not constitute approval of any construction means or methods.

1.6.15 Architect/Engineer shall clarify and interpret the intent and scope of the Construction Documents and, if necessary or appropriate, issue supplemental documents and model views to amplify or explain portions of the Construction Documents.

1.6.16 Architect/Engineer shall provide assistance in the review of the Contractor's requests for change orders or claims for additional time or costs, and make recommendations to Owner as to such requests or claims. The Architect/Engineer shall inform Owner if a request for change order involves a change in scope.

1.6.17 Architect/Engineer shall prepare revised Construction Documents, where appropriate, to illustrate and document the work required by ASIs, RFIs and approved Change Orders. All proposed changes to Drawings and Specifications, regardless of how initiated, shall be

totally defined in the documents depicting them as to scope of work added, removed, or changed. The revised Construction Documents ns shall be derived from revised model(s). Such revisions shall be clearly indicated and a current revision date shall be included. Changes to the Specifications shall be made by consecutively numbered and dated addenda. All changes to design documents or Specifications will be identified with date of change, revision number and other customary identification references. Areas changed on Drawings will be "clouded" to show each change. Clouds designating previous changes will be removed so that only the most recent changes will be clouded.

1.6.18 Architect/Engineer and its consultants shall conduct and participate in concealed space observations (in-wall and above ceiling), systems start-up observations, systems integration/operational demonstrations, Substantial Completion and pre-Final work observations to determine the dates of Substantial Completion, and Final Completion. In association with each observation, Architect/Engineer and its consultants shall prepare a list of items that Architect/Engineer, its consultants and Owner have observed as deficiencies in the Work, requiring remedial work or replacement. The Architect/Engineer shall assemble, transcribe and distribute the official punch list(s) to all affected parties, and thereafter review the corrected and/or replaced work and assist in verification of correction of all items.

1.6.19 Architect/Engineer shall review, for conformance with the Contract Documents, Contractor's submission of guarantees and warranties.

1.6.20 The Architect/Engineer and its consultants shall assist the Owner in checking Record Drawings derived from model(s) maintained by the Construction Manager during the course of the Work in association with certifying progress payments and shall review record documents for completeness and compliance with Contract requirements and the BIM Execution Plan at Substantial Completion and at Final Completion of the Project. The Architect/Engineer is not responsible for any errors and omissions in the information provided by others that are included in the Record Drawings.

1.6.21 Architect/Engineer shall receive and review Contractor's submission of operating and maintenance instructions, and all manuals, brochures, drawings, and other close-out documentation furnished by the Contractor, shall require necessary revisions to same, and when acceptable under the terms of the CMAR Agreement, shall forward to Owner. The Architect/Engineer shall certify final payment to the Contractor when the requirements of the CMAR Agreement have been met.

1.6.22 Architect/Engineer shall throughout construction maintain and keep current the model(s) and Construction Documents by incorporating all Addenda, RFIs, ASIs and Change Orders. Upon Final Completion of the construction, the Architect/Engineer shall deliver copies to the Owner, as follows:

- Specifications: Provide two (2) electronic sets of final specifications incorporating all changes on disc type media or portable drive in PDF and MS Word format.

- Drawings: Provide two (2) electronic sets of final drawings incorporating all changes on disc type media or portable drive in DWG (references attached) and PDF format.
- Model(s): Provide two (2) electronic sets of all models incorporating all changes on disc type media or portable drive in native and IFC file format.
- Label all media indicating the project name and project number as well as an index file listing the contents on the media.
- All electronic documents shall be placed in the applicable folder per Facility Design Guidelines. The A/E shall verify that all model links are intact and in working condition.
- All electronic documents shall be named according to Facility Design Guidelines.

1.6.23 Architect/Engineer shall provide assistance to Owner through the commissioning consultant/agent for the purpose of advising and counseling Owner's personnel in the usage, operation and maintenance of the building mechanical, electrical, and plumbing systems.

1.6.24 Architect/Engineer shall provide a milestone schedule that is acceptable to the Owner and shall be submitted on a monthly basis prior to submission of payment application, in conformance with the project milestone schedule, so that the desired design development schedule for the Project shall be maintained.

1.6.25 The Architect/Engineer shall be available after final payment to advise the Owner regarding Warranty items and to review Warranty work during the Warranty period. Architect/Engineer shall participate in the Project's one-year warranty inspection, including preparation of punch lists and inspection of corrected punch list items..

1.7 **Additional Services**

1.7.1 Additional Services are those services which shall be provided if authorized or confirmed in writing by the Owner and for which compensation will be provided as described in this Agreement in addition to the Basic Services Fee. Prior to commencing any Additional Service, Architect/Engineer shall prepare for acceptance by the Owner an Additional Services Proposal, in a format as directed by Owner, which shall describe in detail the nature or scope of the Additional Services, the basis upon which Architect/Engineer has determined that such services are Additional Services, and which shall set forth the maximum amount of fees for which Architect/Engineer is prepared to perform the Additional Services, together with a proposed schedule for the performances of the Additional Service. Architect/Engineer shall proceed only after written acceptance by Owner of the Additional Services Proposal.

1.7.2 Upon acceptance by Owner, each Additional Services Proposal and the services performed by Architect/Engineer pursuant to the Additional Services Proposal shall become part of this Agreement and shall be subject to all terms and conditions of this Agreement, as fully and completely as though the same had been included in this Agreement as a Basic Service at the original execution of this Agreement.

1.7.3 Providing services to make detailed investigations of existing conditions or facilities or to make measured drawings of them is an Additional Service except as reasonably necessary to

verify the accuracy and completeness of drawings or other information furnished by the Owner and to the extent necessary for the Architect/Engineer to complete its responsibilities hereunder free from any material errors and omissions in accordance with Standard of Care. Architect/Engineer shall not be required to perform any destructive testing unless agreed to as an Additional Service.

1.8 **Time**

1.8.1 Architect/Engineer shall perform all of Architect/Engineer's services described herein as expeditiously as is consistent with (1) Architect/Engineer's professional efforts, skill and care, (2) the orderly progress of such services, and (3) in conformance with the project milestone schedule so that the desired development and construction schedule for the Project shall be maintained. Architect/Engineer shall at all times provide sufficient personnel to accomplish Architect/Engineer's services within the time limits set forth in the schedule described in 1.8.2.

1.8.2 Included in the Program of Requirements is a schedule for completion of each of the phases of services to be performed by Architect/Engineer pursuant to this Agreement. The project schedule contains milestone dates which have been established in the Request for Qualifications previously issued or may be modified by the Owner to reflect current conditions. The Architect/Engineer shall coordinate with the Construction Manager in the preparation and maintenance of the schedule for performance of the professional services for the Project, including the Architect/Engineer's services. Changes in this schedule may be made only with the written approval of Owner. Architect/Engineer shall perform all of its services in accordance with the then-current schedule approved by Owner.

Article 2
Owner's Responsibilities

2.1 The Owner has provided or will provide a Program of Requirements to the Architect/Engineer, or the Owner and Architect/Engineer may agree that Architect/Engineer shall prepare a Program of Requirements as an Additional Service as set forth in Article 14 of this Agreement. The Program of Requirements will set forth the Owner's description of the project scope, preliminary project cost, schedule, criteria for design objectives, characteristics and constraints, space requirements and relationships, site requirements, existing facilities, and desired special components, systems and equipment. If Architect/Engineer prepares the Program of Requirements, then Owner will review the Program of Requirements when completed and then determine whether to proceed with the Project and authorize commencement of Basic Services. The Owner reserves the right to terminate this Agreement following completion of the Program of Requirements, and shall have no further obligation to Architect/Engineer other than payment for services authorized by Owner and provided by Architect/Engineer prior to such termination in accordance with the terms and conditions of this Agreement.

2.2 The Owner will provide a preliminary project budget and schedule for the Project. The budget will include the Amount Available for the Construction Contract, contingencies for changes in the Work during construction, and other costs which are the responsibility of the Owner.

2.3 The Owner designates the Executive Director for the Office of Facilities Planning & Construction as its representative authorized to act in the Owner's behalf with respect to the

Project. The Owner's authorized representative shall examine the documents submitted by the Architect/Engineer and shall render decisions pertaining thereto promptly, to avoid unreasonable delay in the progress of the Architect/Engineer's services. The Executive Director for the Office of Facilities Planning & Construction is also designated as the Owner's representative for the purpose of administering this Agreement, including determination of fees earned by the Architect/Engineer. The Owner shall have the right to withhold from payments due Architect/Engineer such sums as the Owner deems reasonably necessary to protect Owner against any loss or damage which may result from negligence by Architect/Engineer or failure of Architect/Engineer to perform Architect/Engineer's obligations under this Agreement pending final resolution of such claims.

2.4 The Owner, at Owner's cost, will secure the services of laboratory testing engineers, or other special consultants to develop additional information to the extent necessary for the design of the Project. The Architect/Engineer shall provide the Owner with parameters for inclusion in the Owner's instructions to such providers.

2.5 The Owner shall arrange and pay for structural, mechanical, chemical and other laboratory tests as necessary during construction except as required of the Contractor in the Contract Documents.

2.6 The Owner shall furnish all legal, accounting, auditing and insurance counseling services deemed necessary by the Owner for the Project.

2.7 The services, information and reports required by the preceding paragraphs shall be furnished at the Owner's expense.

2.8 If the Owner observes or otherwise acquires actual knowledge of any design fault or defect in the Project or conflict in the Contract Documents, written notice thereof will be given by the Owner to the Architect/Engineer; however, Owner shall have no obligation or duty to investigate whether such faults, defects, or conflicts exist.

2.9 The Owner will review the Architect/Engineer's design at the completion of the Schematic Design and Design Development phases and at completion of the stages of Construction Documents as described in Article 14. Comments concerning corrections or amendments to the model(s), Plans and Specifications will be furnished in writing to the Architect/Engineer as promptly as possible after receipt of the documents for review. Owner's approval of the documents must be in writing and no approval may be deemed given in the absence of written approval. The Owner may require the Architect/Engineer to halt production during design review.

2.10 The Owner shall furnish required information and services and shall render approvals and decisions as expeditiously as necessary for the orderly progress of the Architect/Engineer's services and of the Work.

2.11 The Owner shall furnish one or more Construction Inspectors who shall be responsible for inspection of the Work, consisting of close, on-site examination of the materials, structure and equipment; and surveillance of the workmanship and methods used to insure that the Project is reasonably accomplished in accordance with the Contract Documents and good construction practices.

Article 3
Construction Cost—Definition

3.1 The Estimated Construction Cost shall be the total cost of all elements of the Project, including all alternate bids or proposals, designed and specified by the Architect/Engineer.

3.2 The Estimated Construction Cost shall include at current market rates a reasonable allowance for overhead, profit and general conditions, the cost of labor and materials furnished by the Owner and any equipment which has been shown in the Plans, specified, and specially provided for by the Architect/Engineer.

3.3 The Estimated Construction Cost does not include compensation to the Architect/Engineer and the Architect/Engineer's consultants, the cost of the land, rights-of-way, or other costs which are the responsibility of the Owner as provided in Article 2.

Article 4
Personnel Titles and Hourly Rates

4.1 Prior to entering into any agreement between the Architect/Engineer and the Owner, and the Architect/Engineer and its consultants, the Architect/Engineer shall submit a full list of all personnel titles and the hourly wage for each. The initial list is attached hereto as Exhibit "A". The hourly rates contained therein may be adjusted annually in accordance with the usual and customary salaries of the architectural profession in the area of Architect/Engineer's office, to rates mutually approved by the Owner and the Architect/Engineer.

Article 5
Reimbursable Services

5.1 Reimbursable Services are in addition to the Compensation for Basic Services and Additional Services. These include actual not-to-exceed expenditures made by the Architect/Engineer and the Architect/Engineer's consultants incurred solely and directly in connection with Architect/Engineer's performance of its services as identified in Article 15 Reimbursable Services.

5.2 Expenses not allowed for reimbursement include the cost of review documents required to be provided to the Owner under Article 14, telephone charges, cell phone and PDA charges, FAX service, alcoholic beverages, laundry, car washes, valet service, entertainment and any non-project related items.

5.3 Owner shall pay a mark-up not to exceed ten percent (10%) on those reimbursable identified in Article 15. A mark-up shall not be paid on lodging, meals or travel expenses. Architect/Engineer shall submit receipts for all reimbursable services along with any reimbursement request.

5.4 Owner must authorize all Reimbursable Services prior to the performance of the reimbursable item. Charges for Reimbursable Services must not exceed the established category amounts unless authorization, in writing, is obtained from the Owner.

Article 6
Basis of Compensation

The Owner shall compensate the Architect/Engineer for the services provided in accordance with Article 7. Payments to the Architect/Engineer shall be as follows:

6.1 Basic Services Fee

6.1.1 For Basic Services, as described in Article 1, and including all disciplines identified in Paragraph 15.1 as part of Basic Services, Architect/Engineer's fee shall be a negotiated Basic Services Fee to cover all costs and profit.

6.1.2 The Architect/Engineer's Basic Services Fee will be based on the Amount Available for the Construction Contract identified in the Program of Requirements.

6.1.3 In multiple package projects, the Basic Services Fee for each package shall be determined in a manner agreed to by A/E and Owner. The Architect/Engineer's total Basic Services Fee will be the sum of the basic services fees for all packages.

6.1.4 If the description of the Architect/Engineer's Basic Services is changed materially, the applicable fee shall be adjusted equitably.

6.2 Fees for Changes in Project Scope

6.2.1 For reductions in the scope of the Work of the Project that occur after commencement of the Construction Documents Phase the Architect/Engineer's fee for basic services related to the eliminated portion of the work, to the extent such services are provided, shall be negotiated with the Owner.

6.2.2 For increases in the scope of Work of the Project that occur after commencement of the Construction Documents Phase , the fee for the additional Basic Services required will be negotiated with the Owner.

6.3 Fees for Change Order Services

If revised construction documents are required due to material changes ordered by the Owner and not due to errors and omissions on the part of the Architect/Engineer, or its consultants, the fee for the additional Basic Services required will be negotiated with the Owner.

6.4 Additional Services

6.4.1 For additional services of the Architect/Engineer, that are not Basic Services, due to changes in Project scope, the Architect/Engineer's fee shall be a negotiated amount agreeable to Architect/Engineer and Owner.

6.4.2 For additional services of the Architect/Engineer's consultants, that are not Basic Services, due to changes in Project scope, the Architect/Engineer's fee shall be calculated as an

amount negotiated by the Owner and the Architect/Engineer not to exceed 1.10 times the amount that the consultant bills the Architect/Engineer for the additional services.

6.5 **Reimbursable Services**

For reimbursable services, as described in Article 5, and any other items included in Article 14 as Reimbursable Services, the Architect/Engineer's reimbursement shall be calculated as an amount not to exceed 1.10 times the amounts actually expended by the Architect/Engineer and the Architect/Engineer's consultants in the interest of the Project.

6.6 If the Owner and the A/E are unable to agree on the fee changes in scope or change order services under paragraph 6.2 and 6.3, respectively, the A/E shall not suspend performance and the amount that is acceptable to both parties shall be paid. Any additional amount claimed by the A/E shall be submitted to Owner as a claim under Article 13.13 (Dispute Resolution)

Article 7
Payments to the Architect/Engineer

7.1 **Payments for Basic Services**

7.1.1 Payments for Basic Services shall be made monthly and shall be in proportion to services performed within each Phase of services, as demonstrated by work product, on the basis set forth in Article 6. The form of Statement for Architectural/Engineering Services to be utilized is included in e-Builder®. Each Statement for Architectural/Engineering Services must be accompanied by an HSP-Prime Contractor Progress Assessment Report in the form located at http://window.state.tx.us/procurement/prog/hub/hub-forms/ProgressAssessmentReportForm.xls

7.1.2 No partial payment made shall be, or construed to be, final acceptance or approval of the services to which the partial payment relates, or a release of Architect/Engineer of any of Architect/Engineer's obligations or liabilities with respect to such services.

7.1.3 Architect/Engineer shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the services.

7.1.4 Architect/Engineer shall submit a request for final payment to the Owner within thirty days after approval of the final payment to the Contractor.

7.1.5 The acceptance by Architect/Engineer, or Architect/Engineer's successors, of final payment under this Agreement shall constitute a full and complete release of Owner from any and all claims, demands, and causes of action whatsoever which Architect/Engineer, or Architect/Engineer's successors, have or may have against Owner under the provisions of this Agreement except those claims previously made in writing and identified by Architect/Engineer as unsettled at the time of the final request for payment.

7.1.6 Payment of A/E's invoice is subject to the Texas Prompt Payment Act, Chapter 2251, *Texas Government Code*.

7.1.7 All payments to A/E shall be by electronic direct deposit. A/E is required to complete

and submit to Owner a Vendor Direct Deposit Authorization prior to the first payment request. Form can be accessed at www.window.state.tx.us/taxinfo/taxforms/74-176.pdf.

7.2 Payments for Additional Services and Reimbursable Services

Payments for the Architect/Engineer's Additional Services and for Reimbursable Services shall be made monthly upon presentation of the Architect/Engineer's valid statement of services rendered or expenses incurred as approved by Owner. Invoices shall include complete documentation of all expenses.

7.3 Payments Withheld

7.3.1 Under no circumstances shall the Owner be obligated to make any payment (whether a progress payment or final payment) to Architect/Engineer if any one or more of the following conditions precedent exist:

a) Architect/Engineer is in breach or default under this Agreement;

b) Any portion of a payment is for services that were not performed in accordance with this Agreement; provided, however, payment shall be made for those services which were performed in accordance with this Agreement;

c) Architect/Engineer has failed to make payments promptly to consultants or other third parties used in connection with services for which Owner has made payment to Architect/Engineer;

d) If Owner, in its good faith judgment, determines that the balance of the unpaid fees are not sufficient to complete the services in accordance with this Agreement; or

e) Architect/Engineer has failed to achieve a level of performance necessary to maintain the project schedule.

f) Architect/Engineer fails to comply with conditions set forth in the HUB Subcontracting Plan, including but not limited to the submission of the HSP - Prime Contractor Progress Assessment Report with each monthly invoice.

g) Architect/Engineer fails to obtain, maintain or renew insurance coverage as required by this Agreement.

7.3.2 No deductions shall be made from the Architect/Engineer's compensation on account of liquidated damages or other sums withheld from payments to Contractor or on account of the cost of changes in the Work other than those for which the Architect/Engineer is liable.

Article 8
Architect/Engineer Accounting Records

8.1 Records of Reimbursable Services and expenses pertaining to Additional Services and services performed on the basis of hourly rates shall be kept on the basis of Generally Accepted Accounting Principles and shall be available to the Owner or the Owner's authorized representative

at mutually convenient times for a period of at least three (3) years after final completion of the Project. Owner shall have the right to verify the details set forth in Architect/Engineer's billings, certificates, and statements, either before or after payment by (1) inspecting the books and records of Architect/Engineer during normal business hours; (2) examining any reports with respect to this Project; (3) interviewing Architect/Engineer's business employees; (4) visiting the Project site; and (5) other reasonable action.

8.2 Records of Architect/Engineer costs, reimbursable services pertaining to the Project, and payments shall be available to Owner or its authorized representative during business hours and shall be retained for three years after final payment or abandonment of the Project, unless Owner otherwise instructs Architect/Engineer in writing.

Article 9
Ownership and Use of Documents

9.1 Drawings and Specifications as instruments of service are and shall remain property of the Architect/Engineer whether the Project for which they are made is executed or not. The Owner shall be permitted to retain copies, including digital and reproducible copies, of all model(s), model data, schedules and Drawings and Specifications for information and reference in connection with the Owner's use and occupancy of the Project upon payment of the amounts due under this Agreement. Owner shall have an irrevocable, paid-up, and perpetual non-exclusive license and right, which shall survive the termination of this Agreement, to use the all model(s), model data, schedules and Drawings and Specifications, including the originals thereof, and the ideas and designs contained therein, for any purpose related to the construction, maintenance or use of the Project and for informational purposes for any future project by the Owner, regardless of whether Architect/Engineer remains as the Architect/Engineer, has resigned, this Agreement has been terminated, Architect/Engineer's scope of services has been modified, or the services herein have been completed. If this Agreement is terminated, Architect/Engineer hereby consents to the employment by Owner of a substitute architect/engineer to complete the services under this Agreement. The Architect/Engineer and its consultants shall not be liable for any use of such information that are inconsistent with the purposes for which the Architect/Engineer provided such information or changes made by the Owner to the model(s), model data, schedules and Drawings or Specifications or for claims or actions arising from the Architect/Engineer's incomplete services or from any such alternative use or changes on projects in which the Architect/Engineer is not involved.

9.2 Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not be construed as publication in derogation of the Architect/Engineer's rights.

Article 10
Termination of Agreement

10.1 This Agreement may be terminated by either party upon seven days' written notice should the other party fail substantially to perform in accordance with its terms through no fault of the party initiating the termination and such failure is not fully cured prior to the expiration of such seven day period.

10.2 This Agreement may be terminated at any time by the Owner for its convenience upon at least seven days' written notice to the Architect/Engineer.

10.3 In the event of termination not the fault of the Architect/Engineer, the Architect/Engineer shall be compensated for all services satisfactorily performed to the termination date, together with approved Reimbursable Services then due, provided Architect/Engineer shall have delivered to Owner such statements, accounts, reports and other materials as required by Paragraph 10.5 below together with all reports, documents and other materials prepared by Architect/Engineer prior to termination.

10.4 A termination under this Article shall not relieve Architect/Engineer or any of its employees of liability for violations of this Agreement, or any willful, negligent or accidental act or omission of Architect/Engineer. The provisions of Article 9 hereof shall survive the termination of this Agreement. In the event of a termination under this Article, Architect/Engineer hereby consents to employment by Owner of a substitute architect/engineer to complete the services under this Agreement.

10.5 As of the date of termination of this Agreement, Architect/Engineer shall furnish to Owner all statements, accounts, reports and other materials as are required hereunder or as have been prepared by Architect/Engineer in connection with Architect/Engineer's responsibilities hereunder. Owner shall have the right to use the ideas and designs therein contained for the completion of the services described by this Agreement, and for completion of the Project, or otherwise.

Article 11
Successors and Assigns

The Owner and the Architect/Engineer, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, permitted successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. This Agreement is a personal service contract for the services of Architect/Engineer, and Architect/Engineer's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party. The benefits and burdens of this Agreement are, however, assignable by Owner. The Architect/Engineer shall not, in connection with any assignment by the Owner be required to execute any documents that increase the Architect/Engineer's contractual or legal obligations or risks, or the availability or costs of its professional or general liability insurance.

Article 12
Extent of Agreement

This Agreement supersedes all prior agreements, written or oral, between Architect/Engineer and Owner and shall constitute the entire Agreement and understanding between the parties with respect to the subject matter hereof. This Agreement and each of its provisions shall be binding upon the parties and may not be waived, modified, amended or altered except by a writing signed by Owner and Architect/Engineer.

Article 13
Business Ethics Expectation

13.1 During the course of pursuing contracts with Owner and while performing contract work in accordance with this Agreement, Architect/Engineer agrees to maintain business ethics standards aimed at avoiding any impropriety or conflict of interest which could be construed to have an adverse impact on the Owner's best interests.

13.2 Architect/Engineer shall take reasonable actions to prevent any actions or conditions which could result in a conflict with Owner's best interests. These obligations shall apply to the activities of Architect/Engineer's employees, agents, subconsultants, subconsultants' employees and other persons under their control.

Architect/Engineer's employees, agents, subconsultants (and their representatives) shall not make or offer, or cause to be made or offered, any cash payments, commissions, employment, gifts valued at $50 dollars or more, entertainment, free travel, loans, free work, substantially discounted work, or any other considerations to Owner's representatives, employees or their relatives.

Architect/Engineer's employees, agents and subconsultants (and their relatives) shall not receive or accept any cash payments, commissions, employment, gifts valued at $50 dollars or more, entertainment, free travel, loans, free work, or substantially discounted work or any other considerations from representatives of contractors, subcontractors, or material suppliers or any other individuals, organizations, or businesses receiving funds in connection with the Project.

13.3 Architect/Engineer agrees to notify Billy C. Hamilton, Deputy Chancellor and Chief Financial Officer for the Office of Facilities Planning & Construction within 48 hours of any instance where the Architect/Engineer becomes aware of a failure to comply with the provisions of this article.

13.4 Upon request by Owner, Architect/Engineer agrees to provide a certified Management Representation Letter executed by a Architect/Engineer representative selected by Owner in a form agreeable to Owner stating that the representative is not aware of any situations violating the business ethics expectations outlined in this Agreement or any similar potential conflict of interest situations.

13.5 Architect/Engineer agrees to include provisions similar to this Article in all contracts with subconsultants receiving more than $25,000 in funds in connection with the Project.

Article 14
Miscellaneous Provisions

14.1 **Captions.** The captions of articles and paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

14.2 **Governing Law.** The validity of this Agreement and all matters pertaining to this Agreement, including but not limited to, matters of performance, non-performance, breach, remedies,

procedures, rights, duties, and interpretation or construction, shall be governed and determined by the Constitution and the laws of the State of Texas, without giving effect to principles of conflicts of law.

14.3 **Waivers.** No delay or omission by either of the parties hereto in exercising any right or power accruing upon the non-compliance or failure of performance by the other party hereto of any of the provisions of this Agreement shall impair any such right or power or be construed to be a waiver thereof. A waiver by either of the parties hereto of any of the covenants, conditions or agreements hereof to be performed by the other party shall not be construed to be a waiver of any subsequent breach thereof or of any other covenant, condition or agreement herein contained.

14.4 **Severability.** In case any provision hereof shall, for any reason, be held invalid or unenforceable in any respect, such invalidity or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid or unenforceable provision had not been included.

14.5 **Independent Contractor.** Architect/Engineer acknowledges that it is engaged as an independent contractor and that Owner has no responsibility to provide Architect/Engineer or its employees with transportation, insurance or other fringe benefits normally associated with employee status. Architect/Engineer is not, and will not claim to be, an officer, partner, employee or agent of Owner and shall not make any claim, demand or application to or for any right or privilege applicable to an officer, partner, employee or agent of Owner, including, but not limited to, unemployment insurance benefits, social security coverage or retirement benefits. Architect/Engineer hereby agrees to make Architect/Engineer's own arrangements for any of such benefits as Architect/Engineer may desire and agrees that Architect/Engineer is responsible for all income taxes required by applicable law.

14.6 **Child Support Certification.** A child support obligor who is more than 30 days delinquent in paying child support and a business entity in which the obligor is a sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25 percent is not eligible to receive payments from state funds under an agreement to provide property, materials, or services until all arrearages have been paid or the obligor is in compliance with a written repayment agreement or court order as to any existing delinquency. The *Texas Family Code* requires the following statement: "Under Section 231.006, *Texas Family Code*, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate."

14.7 **Eligibility Certification.** A state agency may not accept a bid or award a contract that includes proposed financial participation by a person who received compensation from the agency to participate in preparing the Specifications or request for proposals on which the bid or contract is based. The *Texas Government Code* requires the following statement: "Under Section 2155.004, *Texas Government Code*, the vendor certifies that the individual or business entity named in this bid or contract is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate."

14.8 **Franchise Tax Certification.** If Architect/Engineer is a taxable entity subject to the Texas Franchise Tax (Chapter 171, *Texas Tax Code*), then Architect/Engineer certifies that it

is not currently delinquent in the payment of any franchise taxes or that Architect/Engineer is exempt from the payment of franchise taxes.

14.9 **Payment of Debt or Delinquency to the State.** Pursuant to Section 2252.903, *Texas Government Code*, Architect/Engineer agrees that any payments owing to Architect/Engineer under this Agreement may be applied directly toward certain debts or delinquencies that Architect/Engineer owes the State of Texas or any agency of the State of Texas regardless of when they arise, until such debts or delinquencies are paid in full.

14.10 **Loss of Funding.** Performance by Owner under this Agreement may be dependent upon the appropriation and allotment of funds by the Texas State Legislature (the "Legislature"). If the Legislature fails to appropriate or allot the necessary funds then Owner will issue written notice to Architect/Engineer and Owner may terminate this Agreement without further duty or obligation hereunder. Architect/Engineer acknowledges that appropriation of funds is beyond the control of Owner.

14.11 **Proprietary Interests.** All information owned, possessed or used by Owner which is communicated to, learned, developed or otherwise acquired by Architect/Engineer in the performance of services for Owner, which is not generally known to the public, shall be confidential, subject, however, to the Owner's obligations under the Texas Public Information Act. Architect/Engineer shall not, beginning on the date of first association or communication between Owner and Architect/Engineer and continuing through the term of this Agreement and any time thereafter, disclose, communicate or divulge, or permit disclosure, communication or divulgence, to another or use for Architect/Engineer's own benefit or the benefit of another, any such confidential information, unless required by law. Except when defined as part of the Work, Architect/Engineer shall not make any press releases, public statements, or advertisement referring to the Project or the engagement of Architect/Engineer as an independent contractor of Owner in connection with the Project, or release any information relative to the Project for publication, advertisement or any other purpose without the prior written approval of Owner. Architect/Engineer shall obtain agreements similar to those contained in this Paragraph from persons, vendors and consultants retained by Architect/Engineer. Architect/Engineer acknowledges and agrees that a breach by Architect/Engineer of the provisions hereof will cause Owner irreparable injury and damage. Architect/Engineer, therefore, expressly agrees that Owner shall be entitled to injunctive and/or other equitable relief in any court of competent jurisdiction to prevent or otherwise restrain a breach of this agreement. This section shall not apply to information in whatever form that comes into the public domain, nor shall it restrict the Architect/Engineer from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency or other authority with proper jurisdiction, or if it is reasonably necessary for the Architect/Engineer to defend itself from any suit or claim.

14.12 **Appointment.** Owner hereby expressly reserves the right from time to time to designate by notice to Architect/Engineer a representative to act partially or wholly for Owner in connection with the performance of Owner's obligations hereunder. Architect/Engineer shall act only upon instructions from such representative unless otherwise specifically notified to the contrary.

14.13 **Dispute Resolution.**

14.13.1 The dispute resolution process provided in Chapter 2260, *Texas Government Code*, and the related rules adopted by the Texas Attorney General pursuant to Chapter 2260, shall be used by Owner and Architect/Engineer to attempt to resolve any claim for breach of contract made by Architect/Engineer that cannot be resolved in the ordinary course of business. Architect/Engineer shall submit written notice of a claim of breach of contract under this Chapter to the Chancellor of The Texas A&M University System**,** who shall examine Architect/Engineer's claim and any counterclaim and negotiate with Architect/Engineer in an effort to resolve the claim.

14.13.2 Neither the occurrence of an event giving rise to a breach of contract claim nor the pendency of a claim constitute grounds for the suspension of performance by Architect/Engineer, in whole or in part. Owner and Architect/Engineer agree that any periods set forth in this Agreement for notice and cure of defaults are not waived, delayed, or suspended by Chapter 2260 or this Paragraph 14.13.

14.13.3 It is agreed that such process is not invoked if Owner initiates the dispute by first bringing a claim against Architect/Engineer, except at Owner's sole option. If Owner makes a claim against Architect/Engineer and Architect/Engineer then makes a counterclaim against Owner as a claim under Chapter 2260 and in compliance therewith, the Owner's original claim against Architect/Engineer does not become a counterclaim and is not subject to the mandatory counterclaim provisions of Chapter 2260 of the *Texas Government Code*, except at the sole option of the Owner.

14.14 **Notices.** All notices, consents, approvals, demands, requests or other communications provided for or permitted to be given under any of the provisions of this Agreement shall be in writing and shall be deemed to have been duly given or served when delivered by hand delivery or when deposited in the U.S. mail by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

If to Owner:

Billy C. Hamilton, Deputy Chancellor and Chief Financial Officer
Office of Facilities Planning & Construction
The Texas A&M University System
301 Tarrow Street, 2nd Floor
College Station, Texas 77840-7896

With Copies to:

Russ Wallace, Executive Director
Office of Facilities Planning & Construction
The Texas A&M University System
301 Tarrow Street, 2nd Floor
College Station, Texas 77840-7896

Brett McCully, Area Manager
Office of Facilities Planning & Construction
The Texas A&M University System
301 Tarrow Street, 2nd Floor
College Station, Texas 77840-7896

If to Architect/Engineer: Dan Caren
Stantec Architecture Inc.
3001 Bee Caves Road, Suite 300
Austin, Texas 78746

or to such other person or address as may be given in writing by either party to the other in accordance with the aforesaid.

14.15 **Authority to Act.** Architect/Engineer warrants, represents, and agrees that (1) it is a duly organized and validly existing legal entity in good standing under the laws of the state of its incorporation or organization; (2) it is duly authorized and in good standing to conduct business in the State of Texas; (3) it has all necessary power and has received all necessary approvals to execute and deliver this Agreement; and (4) the individual executing this Agreement on behalf of Architect/Engineer has been duly authorized to act for and bind Architect/Engineer.

14.16 **Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be deemed, construed and considered to be an original, but all of which shall constitute one and the same instrument.

14.17 **Venue**. This Agreement is performable in the county in which the Project is located. Pursuant to Section 85.18, *Texas Education Code*, venue for any suit filed against Owner shall be in the county in which the primary office of the chief executive officer of Owner is located.

14.18 **Non-Waiver Provisions**. Owner expressly acknowledges that Owner is an agency of the State of Texas and nothing in this Agreement will be construed as a waiver or relinquishment by Owner of its right to claim such exemptions, privileges, and immunities as may be provided by law.

14.19 **Previous Employment**. Architect/Engineer acknowledges and understands that Section 2252.901, *Texas Government Code*, prohibits Owner from using state appropriated funds to enter into any employment contract, consulting contract, or professional services contract with any individual who has been previously employed, as an employee, by the agency within the past twelve (12) months. If Architect/Engineer is an individual, by signing this Agreement, Architect/Engineer certifies that Section 2252.901, *Texas Government Code*, does not prohibit the use of state appropriated funds for satisfying the payment obligations herein.

14.20 **Public Information**. Architect/Engineer acknowledges that Owner is obligated to strictly comply with the Public Information Act, Chapter 552, *Texas Government Code*, in responding to any request for public information pertaining to this Agreement, as well as any other disclosure of information required by applicable Texas law.

Upon Owner's written request, Architect/Engineer will provide specified public information exchanged or created under this Agreement for or on behalf of A&M System to Owner in a non-proprietary format acceptable to Owner.

Architect/Engineer acknowledges that Owner may be required to post a copy of the fully executed Agreement on its Internet website in compliance with Section 2261.253(a)(1), *Texas Government Code*.

Architect/Engineer acknowledges that the requirements of Subchapter J, Chapter 552 *Texas Government Code*, (added by SB 943 during the 86th Legislative Session) may apply to this Agreement and Architect/Engineer agrees that this Agreement can be terminated if the Architect/Engineer knowingly or intentionally fails to comply with a requirement of that subchapter.

14.21 **Certification regarding Boycotting Israel.** Architect/Engineer acknowledges that Owner is obligated to comply with Chapter 2270, *Texas Government Code*. By executing this Agreement, Architect/Engineer certifies it does not and will not, during the performance of this Agreement, boycott Israel. Architect/Engineer acknowledges this Agreement may be terminated if this certification is inaccurate.

14.22 **Certification regarding Business with Certain Countries and Organizations.** Architect/Engineer acknowledges that Owner is obligated to comply with Subchapter F, Chapter 2252, *Texas Government Code***.** By executing this Agreement, Architect/Engineer certifies it is not engaged in business with Iran, Sudan, or a foreign terrorist organization. Architect/Engineer acknowledges this Agreement may be terminated if this certification is inaccurate.

14.23 **Prohibition on Contracts Related to Persons Involved in Human Trafficking**. Under Section 2155.0061, Government Code, the vendor certifies that the individual or business entity named in this contract is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate.

Article 15
Other Conditions or Services

The Owner and Architect/Engineer hereby agree to the full performance of the covenants contained herein.

15.1 **Basic Services.** The Architect/Engineer's Basic Services are those services described in paragraphs 1.2 through 1.6 for which compensation shall be the Basic Services Fee described in this Agreement and shall include the following disciplines:

a. Architectural Services
b. Landscape Architectural Services
c. Civil Engineering Services
d. Structural Engineering Services
e. Mechanical Engineering Services
f. Electrical Engineering Services

g. Plumbing Engineering Services
h. Audio Visual/Data & Telecommunications Engineering
i. Cost Estimating Services
j. Laboratory Design Services
k. Vibration Engineering Services
l. LEED Silver Point System Analysis and Review (No Certification)
m. Energy Modeling
n. 3 high quality 30x42 inch professional renderings suitable for mounting
o. Document Printing costs as defined in "Ex C Document Distribution Matrix"
p. Other Consultants as required by the Project

15.2 **Reimbursable Services.** The services identified in the following list are not included in Basic Services.

a. Site Survey
b. Geotechnical Investigation
c. Commissioning Services
d. Registered Accessibility Specialist for preliminary and final plan reviews
e. Furniture Design & Specifications Package to FP&C
f. Equipment Design & Specification Package to FP&C
g. Environmental Wind Tunnel Testing
h. Other items agreed to by the Owner in writing

15.3 **Basis of Compensation**

15.3.1 Basic Services.

The initial Amount Available for the Construction Contract (AACC) for the Project is

Fifty-Two Million, Five Hundred Thousand and no/100 dollars ($52,500,000.00).

The negotiated Basic Services Fee for the Project is

Four Million, Five Hundred Twelve Thousand, Five Hundred and no/100 dollars ($4,512,500.00).

15.3.2 Reimbursable Services.

Site Survey:	Not to Exceed	$ 7,700.00
Geotechnical Investigation:	Not to Exceed	$ 48,180.00
Commissioning Services:	Not to Exceed	$315,000.00
Registered Accessibility Specialist:	Not to Exceed	$ 5,362.00
Furniture Design & Specifications Package to FP&C:	Not to Exceed	$125,000.00
Equipment Design & Specification Package to FP&C:	Not to Exceed	$ 79,200.00
New and Existing Equipment Inventory Services:	Not to Exceed	$ 60,000.00
Special Structural Analysis for Strong Floor:	Not to Exceed	$ 16,500.00

Electromagnetic Field Consultant Services:	Not to Exceed	$ 16,500.00
Environmental Wind Tunnel Testing:	Not to Exceed	$ 38,500.00

The maximum allowable cost on this Project for Reimbursable Services identified in Article 5 as approved by the Owner is:

Maximum Reimbursable Expense Amount:	**$ 711,942.00**
15.3.3 Maximum Contract Sum	
Basic Services Fee amount (Para 15.3.1)	$4,512,500.00
plus	
Maximum Reimbursable Expense Amount (Para 15.3.2)	$ 711,942.00
MAXIMUM CONTRACT SUM:	**$5,224,442.00**

15.4 **Progress Payments.** Payments for Basic Services shall be made as provided in Article 7 in accordance with the following schedule:

Schematic Design Phase:	15%
Design Development Phase:	25%
Construction Documents Phase:	35%
Bidding or Negotiation Phase:	3%
Construction Phase:	20%
Final Drawings	2%

15.5 **Review Stages.** The Architect/Engineer shall submit documents to the Owner for review at completion of the Schematic Design Phase, Design Development Phase and at the following stages of completion of the Construction Documents Phase as follows:

50%, 100%

15.6 **Estimated Construction Costs.** The Architect/Engineer shall submit Estimated Construction Costs as described in Subparagraph 1.1.19 at completion of the Schematic Design Phase, Design Development Phase and at the following stages of completion of the Construction Documents Phase:

50%, 100%.

15.7 **Review Documents.** The Architect/Engineer shall, at its expense, furnish and deliver to the Owner for Owner's review, Refer to Exhibit C: Document Distribution Matrix for the required number of documents needed for each review stage.

[SIGNATURES PROVIDED ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the day and year first written above.

BOARD OF REGENTS OF
THE TEXAS A&M UNIVERSITY SYSTEM
(THE OWNER)

By _____
Deputy Chancellor and Chief Financial Officer

Date 4-21-2020

APPROVAL RECOMMENDED:

_____
Executive Director
Office of Facilities Planning & Construction

Date 04.20.2020.

APPROVED AS TO FORM:

_____
General Counsel

Date 4-16-2020

STANTEC ARCHITECTURE
(THE ARCHITECT/ENGINEER)

By _____
(Signature)

Daniel Caren, AIA

Principal

Date _____

The Texas Board of Architectural Examiners, PO Box 12337, Austin, Texas 78711 or 333 Guadalupe, Suite 2-350, Austin, Texas 78711, telephone (512) 305-9000, has jurisdiction over complaints regarding individuals licensed under Chapter 1051, Texas Occupations Code.

Name(s) of individual(s), sole proprietors, partner(s), shareholder(s) or owner(s) with an ownership interest of at least 25% of the business entity executing this Contract.

Name: Not applicable

Name: _____

Name: _____

Name: _____

The following Exhibits are fully incorporated into this Agreement by reference:

EXHIBITS

Ex A Personnel Titles and Hourly Rates
Ex B BIM Execution Plan
Ex C Document Distribution Matrix

EXHIBIT A
PERSONNEL TITLES AND HOURLY RATES

The prime architectural or engineering firm for this project will assemble the following information from consulting team members associated with the project. The categories of personnel indicated should be edited to include only those expected to be actually working on this project. When preparing this schedule, you are expected to adhere to the position classifications and titles presented to the greatest extent possible. Additional consultant listings and/or position classifications may be added as needed or required by the project.

Firm/Position Classification	Hourly Billing Rate
Design Architect /Architecture: Stantec Architecture Inc.	
Principal	$234
Sr. Design Architect	$219
Sr. Project Manager	$191
Sr. Project Architect	$173
Project Architect	$154
Project Designer	$158
Construction Administrator	$167
Sr. Interior Designer	$167
Interior Designer	$137
Intern/Design Coordinator/Project Coordinator/APM	$143
Senior Drafter	$154
Administrative Staff	$122
MEP Engineering: Shah Smith & Associates	
Principal	$271
Department Head/Associate	$193
Project Manager	$193
Engineer, Design Coordinator, Construction Coordinator	$174
CADD Specialist/Designer	$128
Clerical	$ 91
Structural Engineering: Datum Rios, LLC	
Senior Principal	$290
Principal II	$215
Principal I	$190
Senior Project Manager	$155
Project Manager	$145
Project Engineer	$115
Graduate Engineer	$105
Senior Production Manager	$162

Senior Technician	$137
Technician II	$120
Technician	$ 81
Senior Support Personnel	$170
Support Personnel	$ 81

Civil Engineering: Gessner Engineering

Principal	$200
Senior Engineer	$160
Engineer	$135
Graduate Engineer	$105
Engineering Designer	$ 80
Construction Administrator	$ 85
Administrative Staff	$ 30

Landscape Architecture: Blu Fish Collaborative Partner

Landscape Architect	$150
Project Landscape Architect	$100
Landscape Designer	$ 85
Administrative Staff	$ 50

Cost Consultant: Vermeulens

Principal	$290
Senior Estimator	$170
Estimator	$140
Administrative Staff	$140
Associate Principal	$260
Associate	$230
Senior Project Manager	$200

Data/Telecommunications Consultant: DataCom Design Group

Principal	$198
Associate	$186
Senior Consultant	$160
Consultant	$138
Contract Administrator	$ 98
BIM/CADD Technician	$ 67
Administrative Staff	$ 58

Acoustical/Audio-Visual Consultant: SLR International Corporation

Principal	$265
Senior Consultant	$240
Consultant	$200
Contract Administrator	$100
BIM/CADD Technician	$140
Administrative Staff	$ 70

Laboratory Consultant: Stantec Architecture Inc.

Principal	$234
Sr. Design Architect	$219
Sr. Project Manager	$191
Sr. Project Architect	$173
Project Architect	$154
Project Designer	$158
Construction Administrator	$167
Sr. Interior Designer	$167
Interior Designer	$137
Intern/Design Coordinator/Project Coordinator/APM	$143
Senior Drafter	$154
Administrative Staff	$122

EXHIBIT B
BIM Execution Plan

DEVELOPED BY
Dan Caren, AIA
Stantec Architecture Inc.

PROJECT INFORMATION

The intent of this BIM Execution Plan is to provide a framework that will let the owner, design team, and contractor deploy building information modeling (BIM) technology and best practices on this project faster and more cost-effectively. If the delivery method is competitive sealed proposal then the contractor will be included in this Execution Plan at a later date. This plan delineates roles and responsibilities of each party, the detail and scope of information to be shared, relevant business processes and supporting software.

To successfully implement Building Information Modeling (BIM) on a project, the project team has developed this detailed BIM Project Execution Plan. The BIM Project Execution Plan defines uses for BIM on the project (e.g. design authoring, cost estimating, and design coordination), along with a detailed design of the process for executing BIM throughout the project lifecycle.

Project Name: Engineering Classroom & Research Building
Project Number: 05-3300
Brief Project Description: The new building will provide approximately 101,000 gross square feet of new space for the campus.

Additional Project Information:

Construction Delivery Method: CMAR

Project Schedule/Phases/Milestones:
Include BIM milestones, pre-design activities, major design reviews, stakeholder reviews, and any other major events which occur during the project lifecycle.

Project Phase/Milestone	Estimated Start Date	Estimated Completion Date	Project Stakeholders Involved
Schematic Design	April 7, 2020	July 31, 2020	Multiple
Design Development	August 1, 2020	December 18, 2020	Multiple
Construction Documents	December 19, 2020	May 14, 2021	Multiple
Facility Data Review			
Construction	May 24, 2021	May 26, 2020	Multiple

KEY PROJECT CONTACTS

List of lead BIM contacts for each organization on the project. Additional contacts can be included later in the document.

Organization	Contact Name	Role/Title	Location	Email	Phone
Stantec Arch. Inc.	Alex Holman	Project Arch.	Houston	Alexander.Holman@stantec.com	713-548-5930
Vermeulens	John McKeon	Sr. Proj. Mngr.	Paige	JMcKeon@vermeulens.com	512-985-7201
Shah Smith Assoc	Jose Villareal	BIM Coordinator	Houston	JVillareal@ShahSmith.com	713-780-7563
Datum Rios, LLC	Chris Davis	Sr. Struct. Eng.	Dallas	Chris@DatumEngineers.com	214-358-0174
Gessner Engin.	Shane Hart	BIM/CAD Cord.	College Station	MHart@GessnerEng.com	979-680-8840
Blu Fish Collab.	Joe Barge	Landscape Design.	Austin	Joe@BFCollaborative.com	512-388-4115
DataCom Design	Amara Nguyen	Tech. Design Supp.	Austin	Amara.Nguyen@datacomdesign.com	512-478-6001

BIM PROCESSES AND COLLABORATION PROCEDURES

Describe the collaboration strategies used for developing the BIMs for the following applicable processes. Identify project team participants for each.

At Stantec, we take a holistic approach to the adoption and advancement of BIM tools and processes, having successfully weaved them into our project delivery for years. Every aspect of our project approach from design and collaboration to project management and quality control is touched by BIM. We do this by leveraging a BIM Execution Plan (BEP) which defines these processes and protocols for successful BIM implementation on this project for TAMUS.

We engage all project stakeholders in a proactive manner to develop a comprehensive plan so that the benefits of BIM are prevalent throughout the project and facility lifecycle; thus ensuring that everyone's expectations are aligned and ultimately met. We have developed our own BEP which we will use as a roadmap for this project. Our BEP is integrated into our project management toolset and consists of multiple resources allowing a flexible approach that responds to each project's specific needs. It has been our experience that every project warrants some level of BIM. Our understanding of the builder's and TAMUS's goals and skillsets are paramount to determining the correct level.

Starting with a BIM kick-off meeting at the earliest responsible moment, we will work with you to establish the desired outcomes and plan accordingly. Our method for collaboration through a BEP is to fully understand what, when, and why information is required based on the TAMUS design guidelines - who requires it; the appropriate format (graphics vs. data); and the necessary levels of development for all deliverables. Armed with this information, we lead the team in determining how we can use BIM tools to generate the required results and streamline our collective processes. All of which is captured in the BIM Execution Plan.

We believe that the BEP should be a living document that evolves with every project. As project requirements change, so should the plan. BIM tools and responsibilities need to be revisited throughout the life of the project to ensure the best team member is assigned to deliver the best results. Of course the adoption of any new technology, method, or tool presents challenges. We have learned important lessons about the distribution of the work effort and the team required for a successful BIM project. The adoption of this technology has prompted changes in the way we

train employees, assign staff to projects, manage the work, and collaborate with others. All of which we carefully consider when working with the team to craft a BIM Execution Plan. Minimizing duplication of model geometry and maintaining coordinated models requires a team of Model Managers whose roles are traditionally not found on design and construction teams.

We found assigning and dedicating a team of Model Managers for all participants helps the project team eliminate waste and focus on better integrated high fidelity models. Finally, we recognize that the benefits BIM offers during design and construction are a fraction of the facility lifecycle potential. Thus, we have experience in expanding the BIM Execution Plan to accommodate use of models post-project to support facility and asset management initiatives when specifically identified by TAMUS. Based on our previous projects, we understand the intended use of model information at project completion – it is critical to determining the appropriate level and format of "As Built" models.

Because integration of BIM for facility lifecycle management relies heavily on data, our knowledge of the TAMUS needs enable us to seamlessly coordinate deliverables. We will work with you as part of our BEP to develop a BIM Master Plan to facilitate the seamless transition from project completion to successful operation.

Additional project specific guidelines in the BIM Execution Plan will address all of the following areas:

- Existing Conditions
- Design Authoring
- Design Reviews
- Space Tracking
- Energy Analysis
- Daylighting Analysis
- Cost Estimation
- 3D Coordination (design and construction)
- Model Updates during Construction
- Facilities Management Data
- Record Modeling
- Other (describe)

Model Delivery Schedule, Application and File Exchange Type

Document the information exchanges and file transfers that will occur on the project.

Discipline	BIM Use	File Sender/ Receiver	One-Time or Frequency	Due Date or Start Date	Model File	Model Software	Native File Type	Version	File Exchange Type
A/MEP/S	Revit	All	Real-time with BIM 360 for Revit. Weekly update provided by all design team.	At project start.		Revit	Revit	2020	Revit
Civil/Land.	AutoCAD		Weekly update			AutoCAD	AutoCAD		

BIM AND FACILITY DATA REQUIREMENT

Describe the methods to be used to fulfill the data requirements described in the Facility Design Guidelines.

Because integration of BIM for facility lifecycle management relies heavily on data, our knowledge of the TAMUS needs enable us to seamlessly coordinate deliverables. We will work with you as part of our BEP to develop a BIM Master Plan to facilitate the seamless transition from project completion to successful operation.

BIM AND DATA QUALITY CONTROL

Describe the strategy to control the quality of the model(s) and the checks to be performed to assure quality.

Checks	Definition	Responsible Party	Software	Frequency
Visual Check	Ensure there are no unintended model components and the design intent has been followed	BIM team	Revit	
Interference Check	Detect problems in the model where two building components are clashing including soft and hard	BIM team	Navis Works	
Standards Check	Ensure that the BIM and CADD Standard have been followed (fonts, dimensions, line styles, levels/layers, etc.)	BIM team	Revit	
Model Integrity Checks	Describe the QC validation process used to ensure that the Project Facility Data set has no undefined, incorrectly defined or duplicated elements and the reporting process on non-compliant elements and corrective action plans	BIM team	Revit	
Other				

MODEL STRUCTURE

File Naming Structure

A detailed model structure will be set up upon the BIM kickoff meeting.

File Name Formatting	
Architectural Model	Stn_arch_20.rte
Structural Model	dr_struct_20.rte
Mechanical Model	ssa_mech_20.rte
Plumbing Model	ssa_plumb_20.rte
Fire Sprinkler Model	
Electrical Model	ssa_elec_20.rte

Model Structure

Describe and diagram how the model is separated (building, floor, zone, area and/or discipline).

Current plans are to separate the architectural models into separate linked files for building (interior and enclosure) and lab equipment. MEP, structural and other disciplines will follow the same approach and link to the architectural model.

Measurement and Coordinate System

Describe the measurement system and coordinate system used.

Model Accuracy and Tolerances

Models should include all appropriate dimensioning as needed for design intent, analysis, and construction. Level of detail and included model elements are provided in the Information Exchange Worksheet.

Phase	Discipline	Tolerance
Design Documents		ACCURATE TO +/- [#] OF ACTUAL SIZE AND LOCATION
Shop Drawings		ACCURATE TO +/- [#] OF ACTUAL SIZE AND LOCATION
		ACCURATE TO +/- [#] OF ACTUAL SIZE AND LOCATION

PROJECT DELIVERABLES

In this section, list the BIM deliverables for the project and the format in which the information will be delivered.

BIM Submittal Item	Stage	Approximate Due Date	Format	Notes
DWG files	SD, DD, CD and construction phases	At end of each phase and closeout	AutoCAD and PDF	
REVIT model	At project completion	At end of construction phase	REVIT	

ATTACHMENTS

List any supporting information and attach.

- BIM Execution Plan Timeline
- BIM Execution Plan Meeting Summary
- Revit Central File Naming Instructions
- Shared Coordinates Instructions
- Shared Levels and Grids Workset Mapping
- Copy/Monitor Setup
- Instructions for Transmitting Models
- Project Information and Sheet Setup Instructions

BIM Execution Plan Timeline

	BEP Table of Contents Reference	Resp.	Contract Phase	Planning	Schematic Design	Design Development	Construction Documents	Construction Administration	Facility Management
1.0	**BEP Overview**								
1.1	Definitions	PM/BM							
1.2	Appx A - BEP Timeline	PM/BM							
1.3	Appx ? - BEP Meeting SuBMary	PM/BM							
2.0	**Project Agreements**								
2.1	Owner/Stantec Agreement	PM							
2.2	Stantec/Consultant Agreements	PM							
2.3	Appx B - Electronic Exchange Agreements	PM/BM							
3.0	**Project Deliverables**								
3.1	Project Deliverables Matrix	PM							
4.0	**Project Schedule**								
4.1	Appendix C - Project Schedule	PM							
5.0	**Project Team Structure**								
5.1	Team Roles / Responsibilities	PM/BM							
5.2	Appx D - Project Team Organizational Chart	PM							
5.3	BIM Team Contacts List	BM							
6.0	**Owner Stated Requirements**								
	Appx E - Owner Stated BIM Requirements	PM/BM							
7.0	**BIM Uses**								
7.1	Program Validation	BM							
7.2	Energy Modeling	BM							
7.3	Visualization	BM							
7.4	Specifications	BM							
7.5	Virtual Coordination	BM							
	Design Coordination	BM							
	Construction Coordination	BM							
	Appx G - Spec Section 013129	PM/BM							
7.6	Design Assist	PM/BM							
7.7	Cost Validation	BM							
7.8	Construction Scheduling and Work Sequencing	BM							
7.9	Virtual Mock-ups	BM							
7.10	Digital Fabrication	BM							
7.11	Facility Operations and Asset Management	PM/BM							
7.12	Other Uses	PM/BM							
8.0	**Model Content Requirements**								
8.1	Appx H - LOD Spec	BM							
9.0	**Project Specific Standards and Protocols**								
	Appx F - Model Standards	BM							
	Appendix I - Model Matrix	BM							
9.1	Sofware Products and Versions	PM/BM							
9.2	Model Start Workflow	BM							
9.3	Model Linking Protocol	BM							
9.4	File Transfer Protocol	BM							
	File Sharing Chart	BM							
	CAD Links	BM							
9.5	BIM Data Exchange Protocols	BM							
9.6	Appx J - Owner Specific CAD or Documentation Standards	PM/BM							
10.0	**Model Audit Procedure**								
10.1	Model Healthchek	BM							
10.2	Appx ? - Revit Warnings Quick Reference	BM							
11.0	**Model Progression Diagram**								
	Appx K - Model Progression Diagram	PM/BM							

LEGEND

PM	Project Manager
BM	A/E BIM Manager
Dark	Active period
Light	Less Active period
White	No Activity
	Planning Activity
	Implementation Activity

Last Edit: August 23, 2016

1.0 Overview

The following is a summary of the suggested meetings that a team should schedule to complete the BEP. Note that the BEP is a living document, however there is a certain amount of planning and information gathering that should occur as early as practical in the project start-up phase. While these meetings and their durations are a recommendation, it is up to each project team to tailor them to their needs. Note that multiple meetings can be combined into worksessions. What must remain is the sequencing of meeting topics.

2.0 Planning Stage Meeting Summary

Note: Meetings #1 and #2 are often combined into a single worksession. If done so, be sure to allocate a full 2 hours for the meeting.

2.1 Meeting #1 – BIM Kick-off

DURATION: 1 hour

TIMING: As early in the Concept Design Phase as practical.

ATTENDEES: Project leads and a "BIM representative" for all project partners should attend.

PURPOSE: Present the BIM Execution Planning process and discuss the team's BIM experience and expectations. Get a general idea of each stakeholder's workflow and how comfortable the team is with leveraging BIM to innovatively address the project requirements to improve efficiency and accuracy of the deliverables.

2.2 Meeting #2 – BEP Worksession One

DURATION: 1 – 1 ½ hours

TIMING: Either combined with Meeting #1 or as soon after as practical.

ATTENDEES: Project leads and a "BIM representative" for all project partners should attend.

PURPOSE: The first worksession where we go through the BEP and populate as much information as is known. The intent is to capture pertinent information that the team will need to know for model planning. In this meeting we introduce the Level of Development (LOD) Matrix which is the main tool we will use to determine who models what, when and why. *During this meeting it is critical that all Model Managers are identified since they will need to participate in subsequent meetings.*

3.0 Early Design (Schematics) Meeting Summary

Note: Meetings #3 and #4 are often combined into a single worksession. If done so, be sure to allocate a full 4 hours for the worksession.

3.1 Meeting #3 – S.D. LOD Worksession

DURATION: 1 ½ - 2 hours

TIMING: Prior to any team member starting a model.

ATTENDEES: Project leads and Model Managers for all project partners should attend including key team members from the construction team and the owner.

PURPOSE: This is the first of multiple meetings across all phases intended on identifying model scope and responsibilities for all participants. In these sessions the team breaks the building down based on the CSI Uniformat Classification system and we identify who's responsible for creating the elements (both geometry and data) and to what degree of accuracy. Since model involvement from all disciplines may be light in S.D., the team may choose to just focus on key systems that will be developed for the deliverables.

3.2 Meeting #4 – Model Planning Worksession

DURATION: 1-2 hours

TIMING: Either combined with Meeting #4 or prior to any team member starting a model.

ATTENDEES: Model Managers.

PURPOSE: This meeting is intended to define Revit protocols (file sharing, naming, scope, etc.) We have several tools as part of the BEP to facilitate this (spreadsheets, Revit files, pdf instructions) so everyone can hit the ground running with building their models.

4.0 Design Development Meeting Summary

4.1 Meeting #5 – D.D. LOD Worksession

DURATION: 2-4 hours

TIMING: As soon as practical after the Schematic Design submission or notice to proceed into D.D.

ATTENDEES: Project leads and Model Managers for all project partners should attend including key team members from the construction team and the owner.

PURPOSE: The same process outlined for S.D. needs to be followed to complete the building systems definitions for the D.D. phase. This can typically be handled in one meeting but may require a second meeting. Since the majority of model geometry creation occurs during D.D. it is important that the team identify all anticipated building systems to some level of development for this phase. For instance, a mechanical system may be modeled to include only major equipment and primary duct runs but everything modeled will be as accurate as possible as far as size, location, clearance, etc. Or architecturally we may decide to drive a lot of information through data (such as room data) and not physical geometry in drawings.

Depending on the size and complexity of the project and team, this can be handled in one session per phase or it may require additional meetings per phase. It is recommended that appropriate representatives from the construction team and the owner attend all meetings for two reasons. First, if they're going to try and use the information in our models, they need to understand what they're going to get from the design team both in the contents of the document package and the models. Second, they may have specific requirements that the design team needs to consider. For instance, if the owner is going to look at using BIM for facility or asset management they may want us to establish some up front structure for inputting data into the models.

4.2 Meeting #6 – D.D. LOD Worksession Two (If needed)

DURATION: 2 hours

TIMING: As soon as practical after Meeting #5. This meeting is only required if the team does not complete the LOD Matrix in one session.

ATTENDEES: Project leads and Model Managers for all project partners should attend including key team members from the construction team and the owner. At a minimum, gather everyone for the first session and then determining who needs to attend subsequent sessions.

PURPOSE: Complete the building systems not defined in the first worksession.

4.3 Meeting #7 – BEP Worksession Two

DURATION: 1 hour

TIMING: Mid to Late Design Development after the team has fully developed models or after new construction partners such as C.M.s are brought into the project.

ATTENDEES: Project leads and Model Managers for all project partners should attend.

PURPOSE: At some point the team needs to revisit the BEP to see if there are critical decisions that still need to be made or adjustments to be made to the current plan.

4.4 BIM / Design Coordination Worksessions

DURATION: TBD

TIMING: As soon as practical after all disciplines have developed enough model geometry to coordinate key systems.

ATTENDEES: The project's Coordination Manager, Project leads and Model Managers for all project partners should attend.

PURPOSE: These will be ongoing meetings to oversee the development of the models (timing TBD). Ideally they're combined with the regular coordination meetings. Tools such as Navisworks and Design Review can be used to help streamline both the BIM and design coordination process.

5.0 Construction Documents Meeting Summary

5.1 Meeting #8 – C.D. LOD Worksession

DURATION: 2-4 hours

TIMING: As soon as practical after the Design Development submission or notice to proceed into C.D.

ATTENDEES: Project leads and Model Managers for all project partners should attend including key team members from the construction team and the owner.

PURPOSE: The same process outlined for S.D. and D.D. needs to be followed to complete the building systems definitions for the C.D. phase. This can typically be handled in one meeting but may require a second meeting.

5.2 Meeting #9 – C.D. LOD Worksession Two (If needed)

DURATION: 2 hours

TIMING: As soon as practical after Meeting #8. This meeting is only required if the team does not complete the LOD Matrix in one session.

ATTENDEES: Project leads and Model Managers for all project partners should attend including key team members from the construction team and the owner. At a minimum, gather everyone for the first session and then determining who needs to attend subsequent sessions.

PURPOSE: Complete the building systems not defined in the first worksession.

5.3 Meeting #10 – BEP Worksession Three (If needed)

DURATION: 1 hour

TIMING: Mid phase or after new construction partners such as C.M.s are brought into the project.

ATTENDEES: Project leads and Model Managers for all project partners should attend.

PURPOSE: If any major changes have occurred in the project approach, such as changes to construction delivery methods or bid packages, the team needs to revisit the BEP to see if there are critical adjustments to be made to the current plan.

5.4 BIM / Design Coordination Worksessions

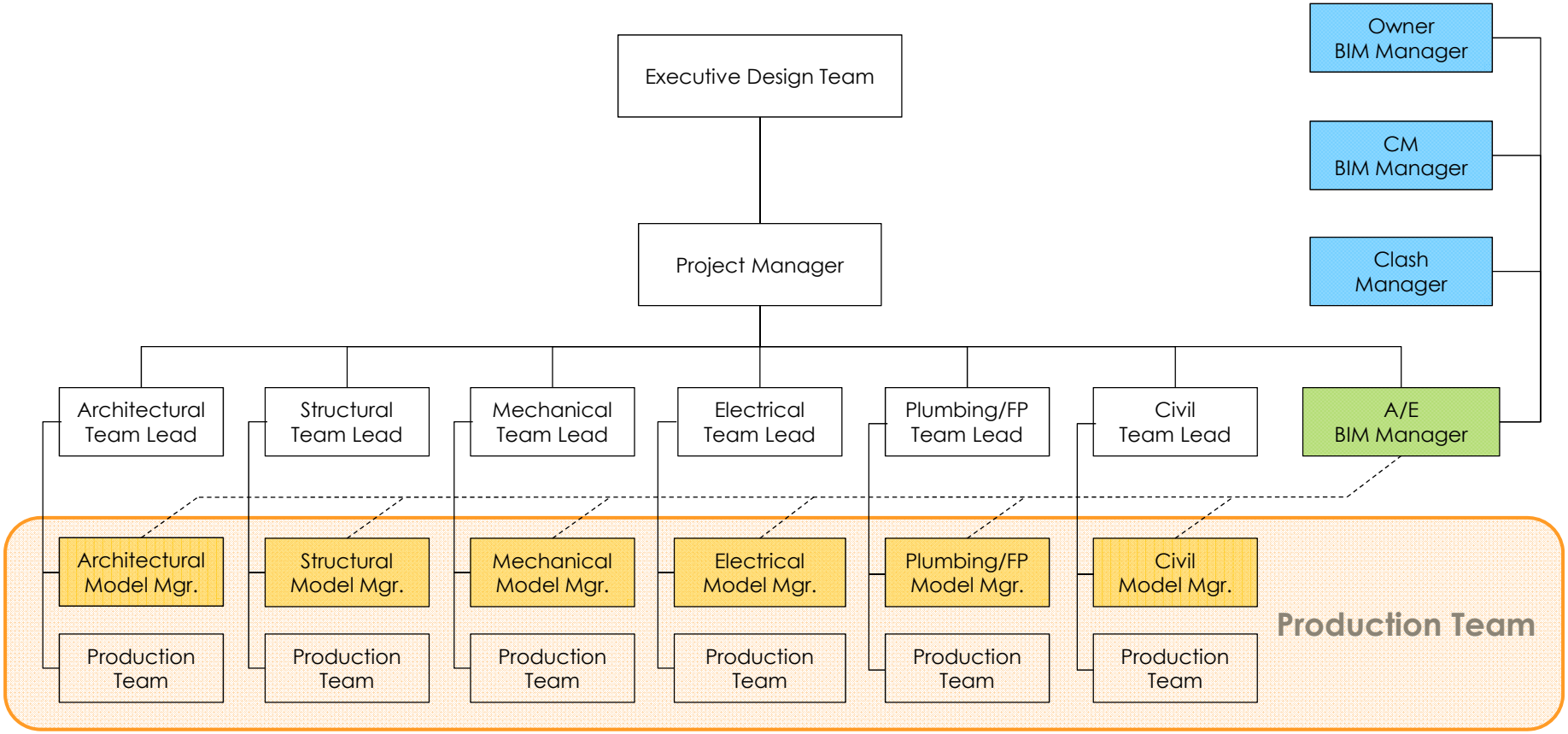
DURATION: TBD

TIMING: As soon as practical after all disciplines have refined enough model geometry to coordinate key systems.

ATTENDEES: The project's Coordination Manager, Project leads and Model Managers for all project partners should attend.

PURPOSE: These will be ongoing meetings to oversee the development of the models (timing TBD). Ideally they're combined with the regular coordination meetings. Tools such as Navisworks and Design Review can be used to help streamline both the BIM and design coordination process.

Sample Large Team Structure



Stantec

APPENDIX F.2-01 – REVIT CENTRAL FILE NAMING INSTRUCTIONS

May 29, 2014

1.0 Purpose

These file naming standards have been developed to ensure that teams follow a consistent convention to better enable worksharing and to minimize confusion with identifying Revit file scope and ownership.

2.0 Case

File names are all lowercase to comply with MEDAD standards.

3.0 Length

File names should be kept as short as possible using only the necessary descriptors. At a minimum, the Discipline, Project Descriptor and Project Number nodes should be used.

4.0 File Naming format

Model file names are constructed from nodes, separated by underscores.

company descriptor_ discipline_ model purpose_project descriptor_project number

4.1 Company Descriptor

This three digit node is optional. It may be required when the project team is collaborating with other offices. If used, all models should include the Company Descriptor.

Company Descriptor example:

stn *Stantec*

4.2 Discipline

Four digit node that indicates the discipline responsible for creating and maintaining a specific model. Generally these are traditional disciplines (Architecture, Structural, etc) but they can include specialty consultants (Lab, Foodservice, etc).

Discipline Abbreviations:

arch	*Architectural*	***intd***	*Interior Design*
civl	*Civil*	***land***	*Landscape Architecture*
mech	*Mechanical*	***strc***	*Structural*
plum	*Plumbing*	***elec***	*Electrical*
tech	*Technology*	***labc***	*Lab Consultant*
fire	*Fire Protection*	***food***	*Foodservice Consultant*

4.3 Model Purpose

This node is optional. Indicates the way in which models are organized.

Model Purpose examples:

shell	*Shell and Core*	***st***	*Stairs*
int	*Interior*	***site***	*Site*
facil	*Facility*	***ext***	*Exterior*
st	*South Tower*	***nt***	*North Tower*
pm	*Podium Model*	***exist***	*Existing*

4.4 Project Descriptor

An abbreviated description should be included to identify the project. The description should capture the client and/or project name. For clients where Stantec provides design services for multiple projects be sure to include both the client and project names.

Project Descriptor examples:

osu-cbec *Ohio State University, Chemical and Biomolecular Engineering and Chemistry Building*

dcc *Delaware Community College*

5.0 File Naming Examples

5.1 Short model file name example

strc_osu-cbec_218510021

discipline_ project descriptor _project number

5.2 Long model file name example:

stn_arch_ shell_cmu-netb_218010258

company descriptor_ discipline_ model purpose_project descriptor _project number

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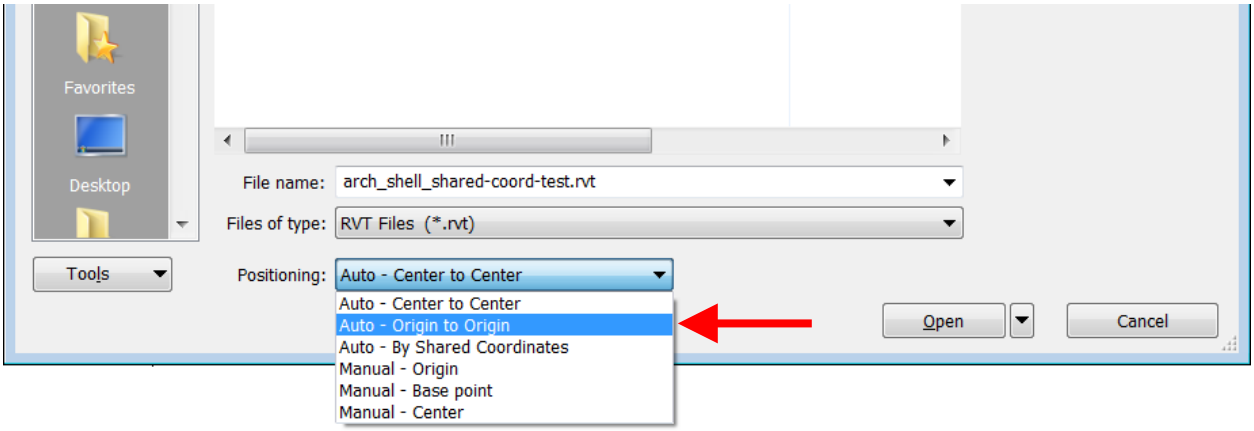
1.0 Purpose

The following instructions are for effectively managing Shared Coordinates across multiple files. They are not intended to instruct users on how to initiate Shared Coordinates through the creation of a master site model for building placement. It is assumed that that step has already been completed. For assistance with establishing Shared Coordinates contact bimteam@stantec.com

2.0 Link the Shared Coordinates Host Model

1. Place the building model that will be used to establish or host Shared Coordinates (the "Host Model") in a permanent location on your server. This will typically be the architectural or building shell model but can be any model defined by the team.

2. With your model open, link the Shared Coordinates Host Model ***"Auto – Origin to Origin"***



At this point the file will be linked in the correct location but the project coordinates systems will not be shared.

3.0 Acquire shared coordinates system

There are two methods for acquiring the Shared Coordinates system from the Host Model

3.1 Method 1:

1. Select the Shared Coordinates Host Model in your model.

2. In the Properties palette, under "Other" click the button next to "Shared Site" that reads "<Not Shared>"

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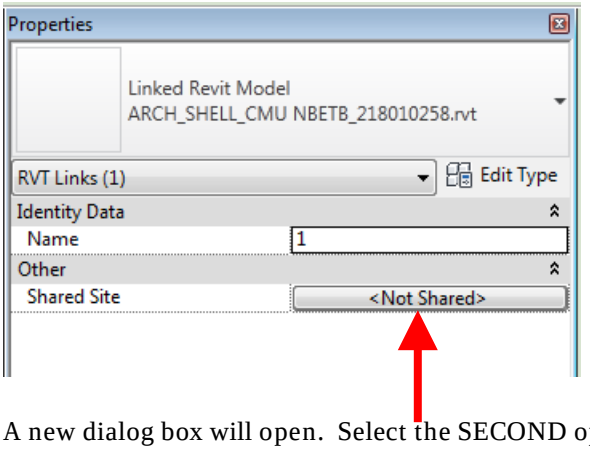
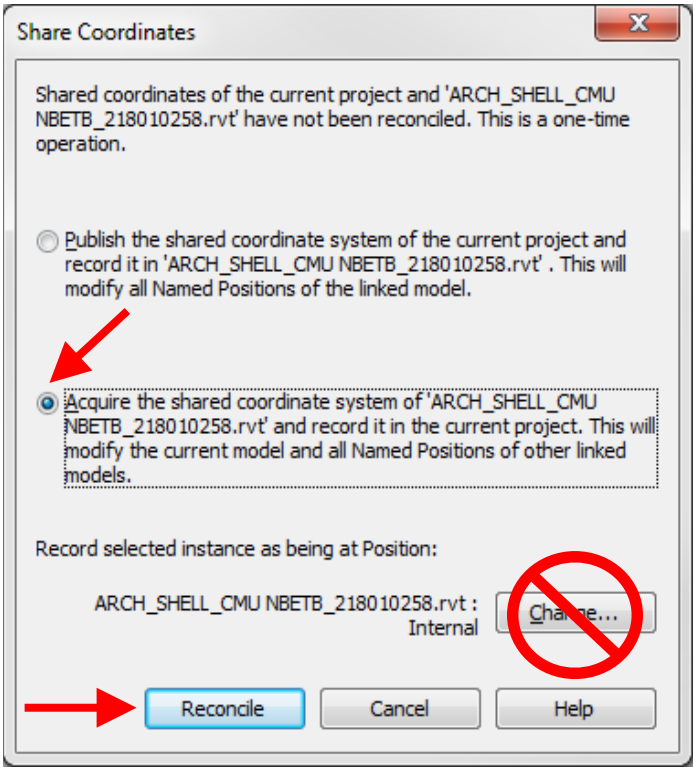


A new dialog box will open. Select the SECOND option to "Acquire Shared Coordinates..." Do not change anything where it gives you the option.



3. Select "Reconcile"

Your model has now acquired the Shared Coordinates system of the host building model. There should be no apparent changes to your file.

3.2 Method 2:

Select Acquire coordinates and then select the Host Model. Revit will automatically update the coordinates based on the Host Model. ***NOTE: If multiple models are linked into your project***

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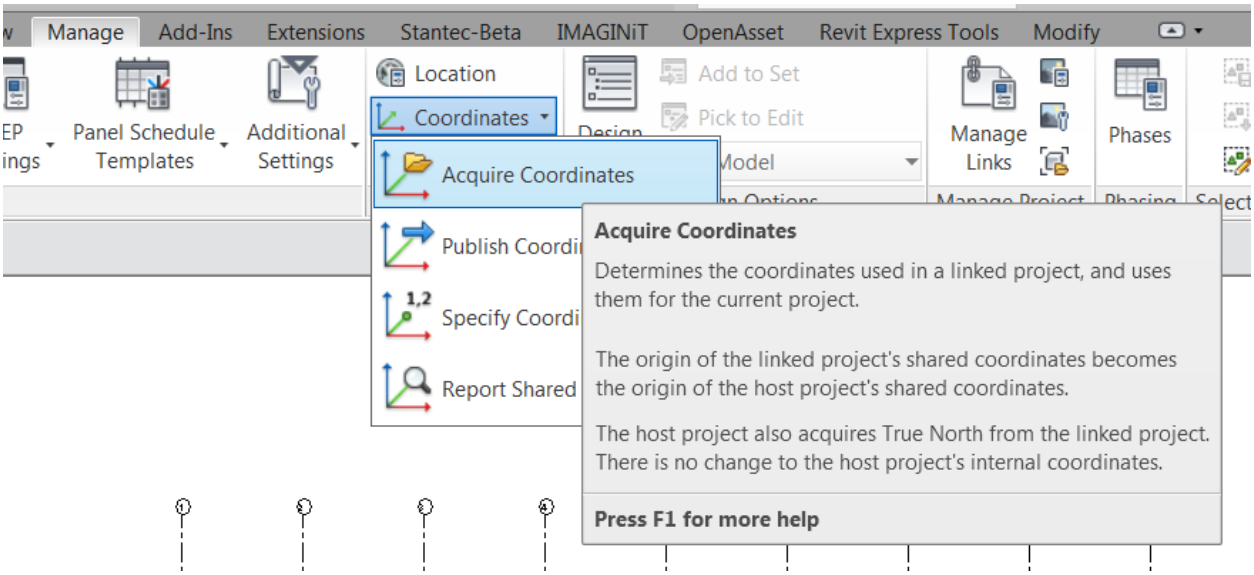
you must ensure that you select the correct Host Model. Selecting another linked model will not result in accurate results.

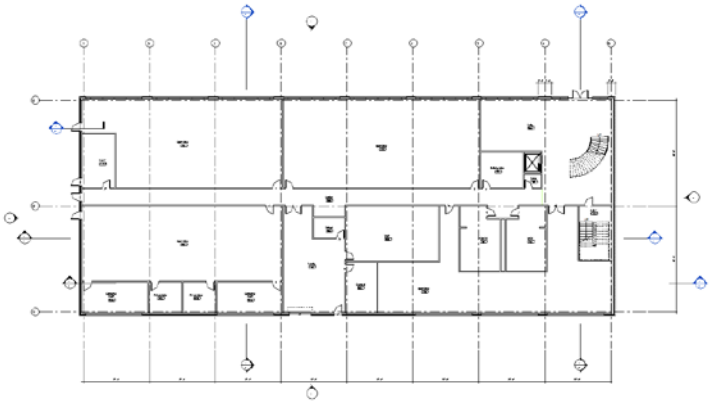


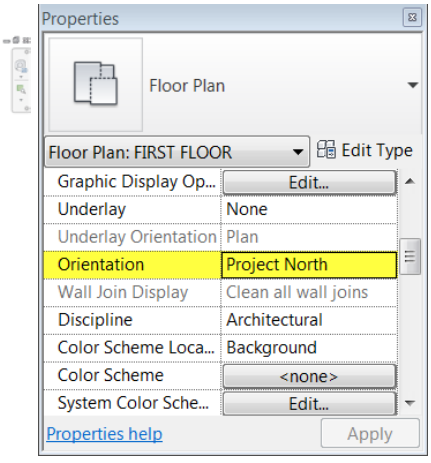
4.0 Check Your Work

In general, as mentioned above, there will be no apparent changes to users. However, there are two ways where the changes will become apparent. These are also ways to check your work.

4.1 Building Orientation in Plan Views

By default Plan View orientations are set to Project North allowing the team to determine the orientation of their building for documentation purposes. This setting can be changed in the Properties Palate to True North.





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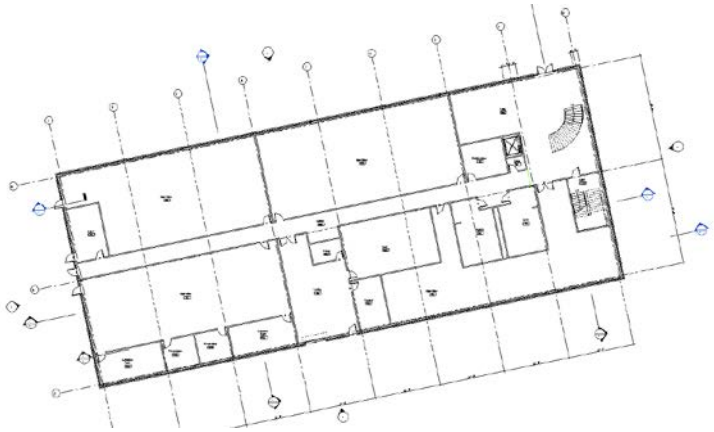
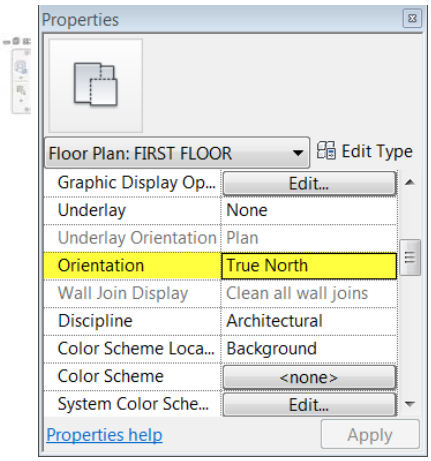
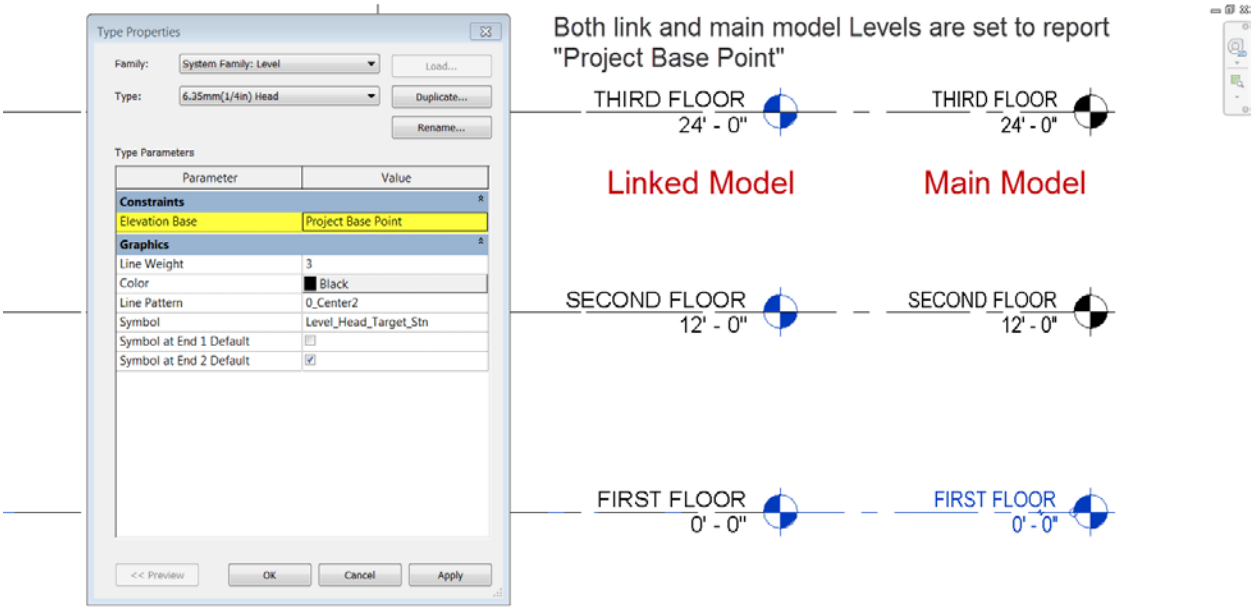
Changing the Plan View orientation to True North will reflect the building orientation relative to the site based on the Shared Coordinates system. It's useful to create a "siteplan" plan view set to True North to refer to later for updates.



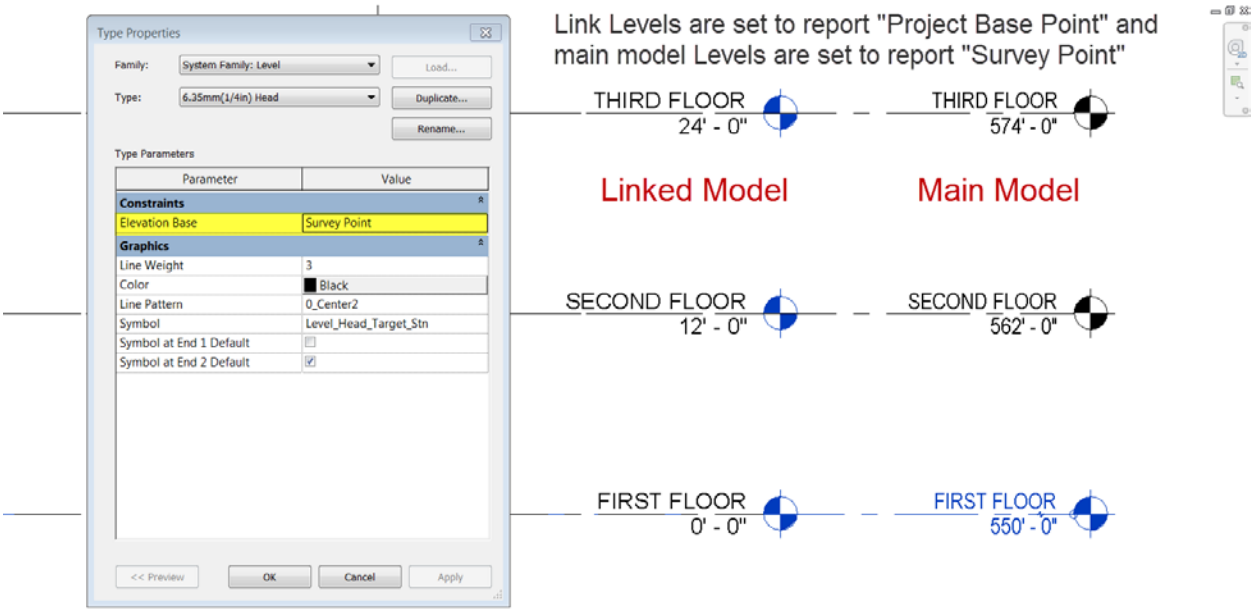


4.2 Levels "Elevation Base" Reference

By default, Levels have an "Elevation Base" reference that is set to "Project Base Point" which will typically report either 0 or 100 depending on your project template. To check your work, remember to make sure that the Shared Levels and Grids Workset for the linked file is visible to see the link's levels in your model.



To report the true Geodetic elevation based on the Shared Coordinates system edit the Level's Type Properties and set the "Elevation Base" reference to "Survey Point". Note that the Levels Elevation Base reference must be set to "Survey Point" in BOTH models to report consistent values.

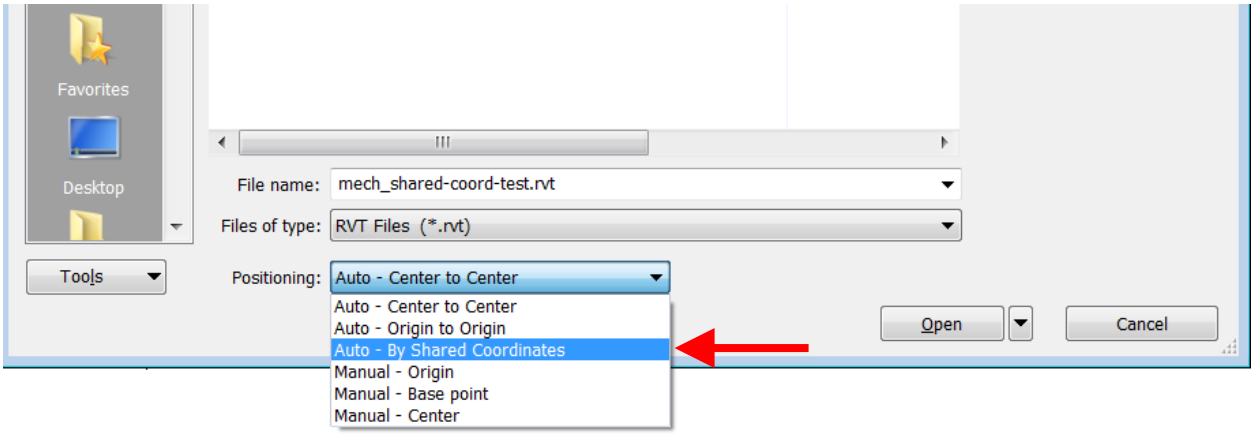


5.0 Link Additional models

After linking the initial Shared Coordinates host file and checking your work, all subsequent project models can then be linked. *Note: Do not link other models until all models have gone through the acquiring Shared Coordinates process outlined above.*

4. Place the other discipline models in a permanent location on your server.

5. With your model open, link the additional discipline models *"Auto – By Shared Coordinates"* This will ensure all models are in the right place relative to each other and the Shared Coordinates Host Model.



6. Just a reminder, make sure all Links are placed on their appropriate worksets.

7. Remember to pin the links so you don't accidentally move their locations in your model. (Modify Tab > pin icon)

Once all models are created with the same relationship and orientation to the Revit Origin and the initial Shared Coordinates relationship is established with the Host Model there should never be a need to move models. If the building needs to be repositioned on the site, this should be coordinated through a master site model with the Host Model. The new coordinates will automatically update in all other discipline models once they receive an updated Host Model link.

If model positions move contact the project's A/E BIM Manager or bimteam@stantec.com

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1.0 Purpose

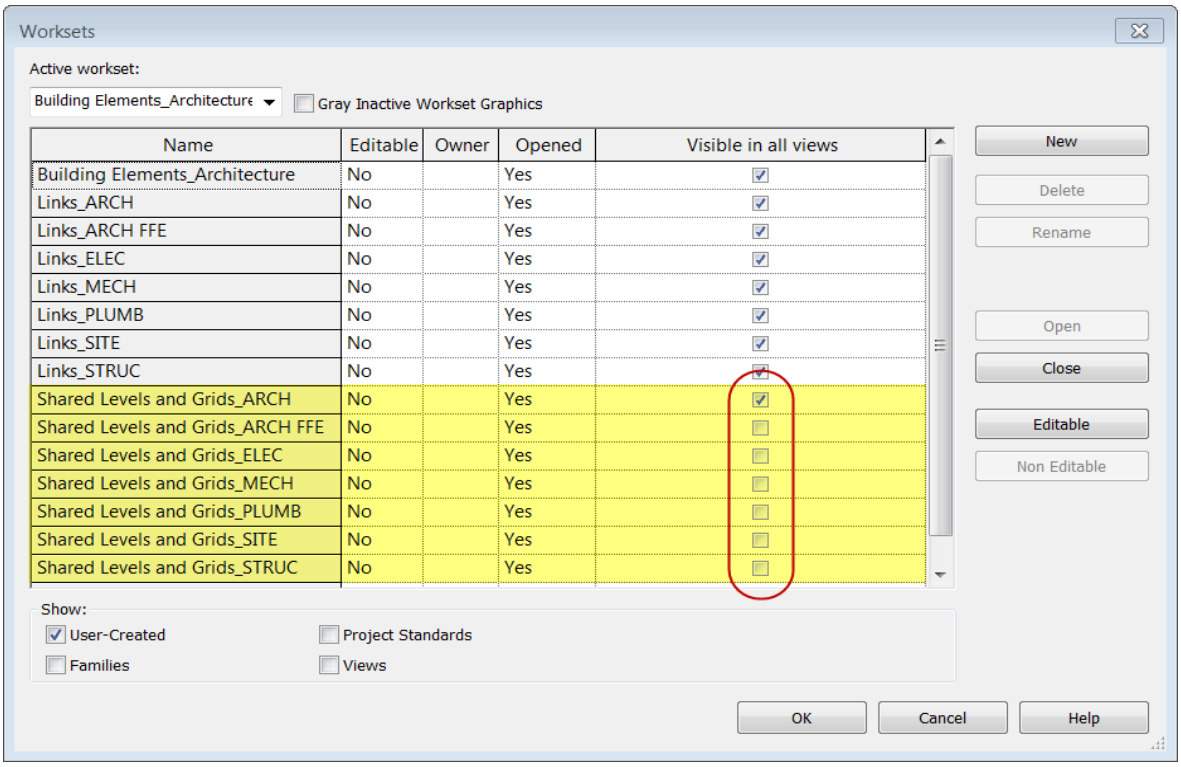
Management of the visibility control of levels and grids through workset mapping across all project Revit files helps improve a team's efficiency. This process eliminates the need for defining visibility of levels and grids through View Templates or the Visibility/Graphics interface for links. Teams can instantly make linked file's levels and grids visible throughout their project through the Worksets dialogue or they can control visibility in independent views as needed.

The process outlined below can also be applied to other aspects of a project where global control of element visibility is desired. The key is to ensure that all models contain a workset with identical naming convention and Revit will automatically apply project settings for that workset to elements in linked files.

Create Worksets

1. Each discipline should append the default "Shared Levels and Grids" workset name in their model with their discipline designator as defined in the Model Matrix. Be sure to place all level and grid elements on this workset. *Note: it is a good practice to also place scope boxes and matchlines on this workset.*

2. Each discipline should then create the additional worksets for Shared Levels and Grids for all other disciplines as defined in the Model Matrix. When creating these be sure to deselect "Visible in all views"



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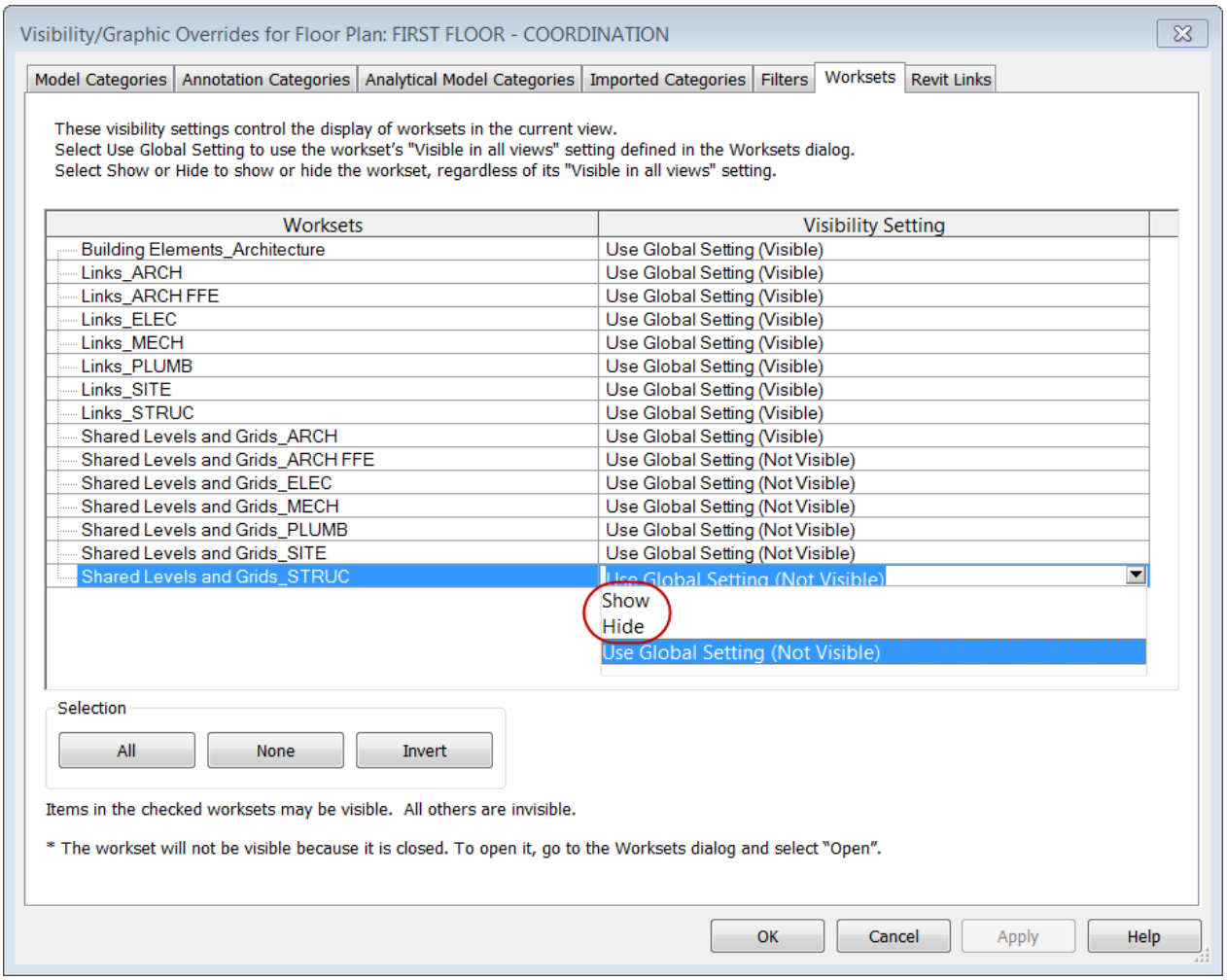
2.0 Link Files

Link your consultant's models (or if your consultant's models are already linked) and note that, if all Revit files follow the agreed naming convention, you will not see the levels and grids from any linked model.

3.0 Manipulate Visibility of Levels and Grids

1. If, at any point, you want to see the levels and grids associated with any or all linked models just access the Worksets dialogue and make the desired workset "Visible in all views". See image in 1.2 above.

2. To see the levels and grids for linked models in specific views just access the Worksets tab in the Visibility/Graphics interface and set the appropriate worksets to "Show".



3. You may want to create a series of coordination views where all linked file Levels and Grids are always visible as a reference. If so, create the views and follow the instructions in 3.2 above.

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1.0 Purpose

The Revit Copy/Monitor utility is a useful tool to enable efficient coordination of model elements across multiple models. Although it can be used for multiple Object Categories, **it is Stantec's Best Practice to establish Copy/Monitor relationships across ALL project models isolated to Levels and grids.** The intent of this document is to ensure that each discipline's Revit models establish the correct setup for Copy/Monitoring Levels and grids. Every model should contain their own "copy" because each discipline will need to control the visibility (extents, breaks, etc) within their own models and every model needs all of their own levels for modeling. Without Copy/Monitor, all models would be locked into the visual extents of one model, or every model would have its own elements with no relationship/link to each other. Teams wishing to use Copy/Monitor for additional Object Categories in specific models should document these project specific requirements in the Model Matrix.

2.0 Recommended Workflow

1. The team is to identify the Host Model(s) for levels and grids and define this in the Model Matrix. Ideally these are both the same model but the project team can decide.

2. The Host Model(s) establish the levels and grids locations and naming convention and they are published to the team.

3. All disciplines will Copy/Monitor the elements. Refer to the following instructions, if needed.

4. All changes to gridline locations or level elevations must be coordinate with the owner of the Host Model(s) and the modifications should be executed in the Host Model. Changes are then published to the team. Although Copy/Monitor facilitates bi-directional tracking of changes to elements, this process is inefficient and should be avoided. The Best Practice application of Copy/Monitor is to facilitate notifications when desired changes are made in the Host Model(s) and when unintended changes are made in all other models.

3.0 Preparing Models for Copy/Monitor

1. Be sure to have the Host Model(s) for levels and grids linked.

2. If you have multiple models linked into your file, it is recommended that you close the worksets controlling the visibility of all other models to isolate the Host Model(s).

3. Verify that the levels and grids for the Host Model(s) are visible in your project. If you are using the Shared Levels and Grids Workset Mapping, in the Manage Worksets dialogue set the Host Model's associated Shared Levels and Grids workset to "Visible in all views".

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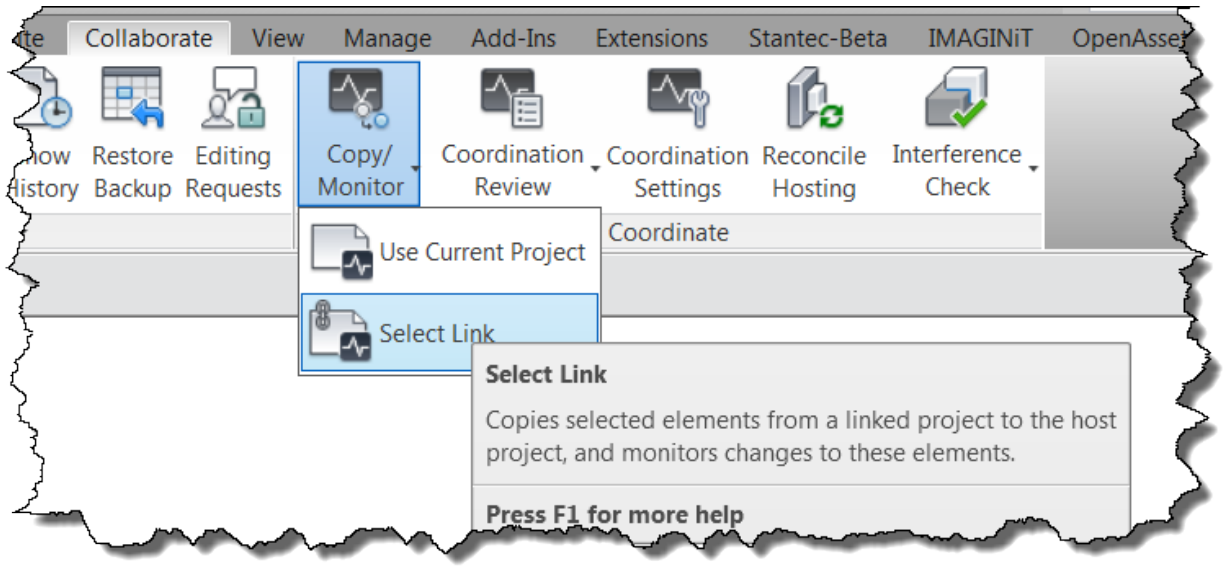
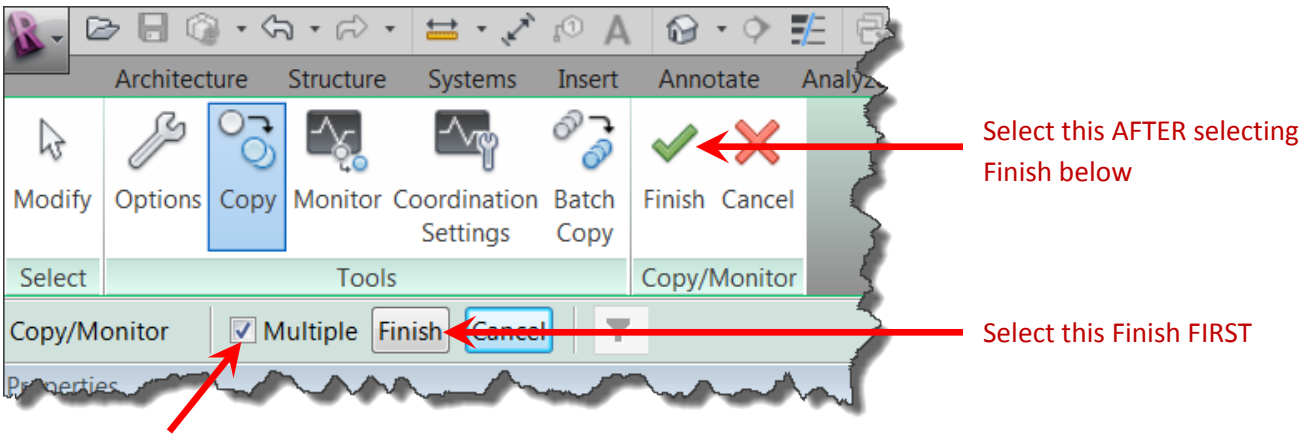
4.0 Copy/Monitor Grids

1. Open a plan view, activate Copy/Monitor in the Collaborate panel and select the Host Model link.



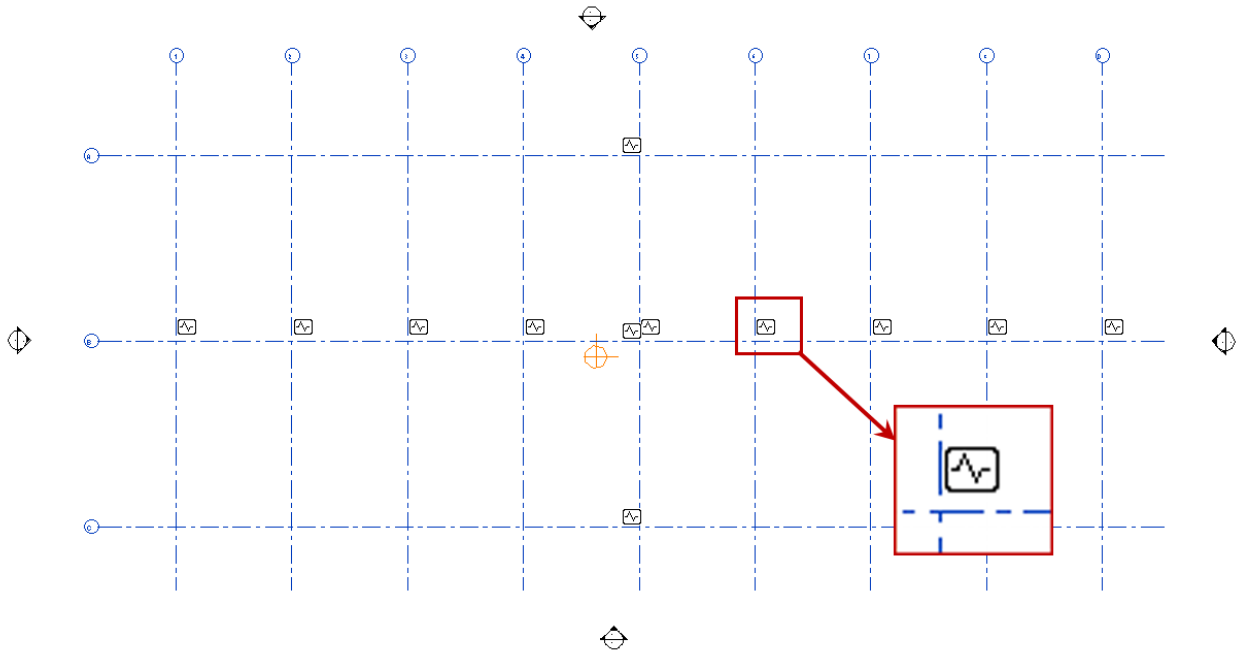
2. A new ribbon of options will appear. Select "Copy". A narrow band of options will appear below the ribbon. Select the "Multiple" option.



3. Select all of the grids from the Host Model. Once all grids are selected, select the "Finish" button to finish multiple selection, THEN select the "Green Finish Checkmark" to execute the Copy/Monitor command.

   - Note that if the "Green Finish Checkmark" is selected PRIOR to finishing the Multiple select option Copy/Monitor will cancel out and the grids will not be copied.
   - Be sure to verify that all of the grids intersect the view range of the plan view.

4. When a Copy/Monitored element is selected, a small graphic will appear identifying the relationship. If the desired element is selected and the graphic does not appear, the Copy/Monitor command was not executed properly and the steps need to be repeated.



5. Be sure to select all of the grids now in your file and add them to the "Shared Levels and Grids_YOUR FILE" workset.

6. Reset the graphics of the Host Model's Shared Levels and Grids workset to not be visible in your model.

5.0 Copy/Monitor Levels

1. Follow the steps outlined in Section 2.

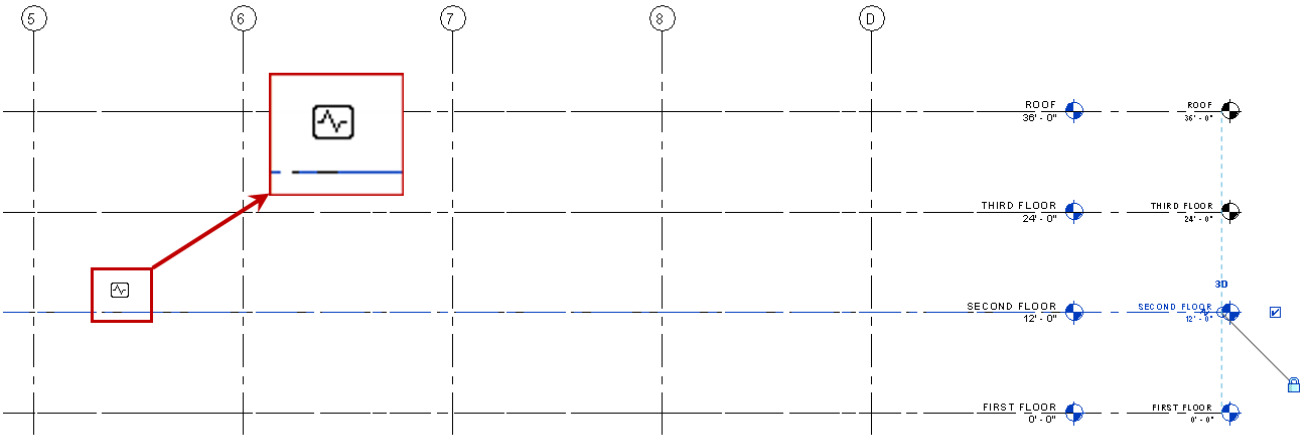
2. Open an elevation view, activate Copy/Monitor again in the Collaborate panel, select the Host Model link and follow the same process outlined in Section 3.

3. Chances are you already have at least one level in your model. For these levels you do not want to copy corresponding levels from the Host Model but rather monitor the relationship between the two. For existing levels use the Monitor option instead of Copy. To Monitor levels, select the existing level in your model FIRST and then the corresponding level in the Host Model SECOND.

    - Note that each level and its associated Host Model element must be selected independently. You cannot batch monitor elements.

- Prior to monitoring existing levels in your model be sure to align them with the associated Host Model levels and rename them to match the host.

4. Again, when a Copy/Monitored element is selected, a small graphic will appear identifying the relationship. If the desired element is selected and the graphic does not appear, the Copy/Monitor command was not executed properly and the steps need to be repeated.



5. Reset the graphics of the Host Model's Shared Levels and Grids workset to not be visible in your model.

6.0 Coordination Review

It is the responsibility of each Discipline Model Manager to manage the Coordination Review process for Copy/Monitored elements. Again, all required modifications are to be performed by the owner of the Host Model. Discipline Model Managers are responsible for ensuring that desired changes are incorporated and unintended changes are corrected in their models.

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1.0 Purpose

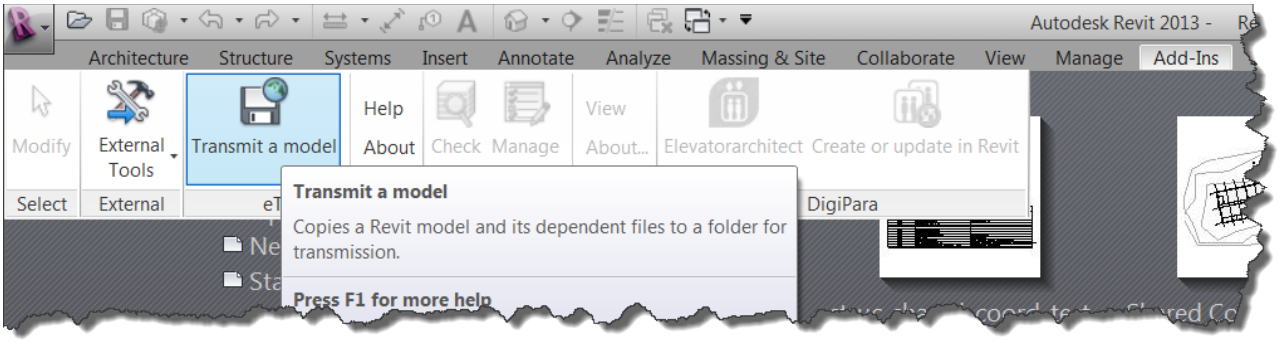
The process for transmitting models should be followed EVERY TIME a Revit file is exported for use by other project team members that will not be referencing a "live link". The intent is to ensure that each team member provide a model that contains minimal unused or orphaned information thus keeping the file size down for linking into other models. **These instructions should be passed on to all project team's Discipline Model Managers using Revit whose models will be linked into a Stantec model.**

The following outlines two methods that are Stantec's recommended Best Practice. The chosen method and specific execution for exports such as in-progress model sharing, model archiving and model hand-off to clients is at the discretion of the Discipline Model Managers.

2.0 Option I: Etransmit Utility (Preferred)

This utility is available through Autodesk Subscription and provides a fast, consistent method for preparing a detached from central model for export.

1. Make sure that all users have Synchronized with Central and all models are closed in your session of Revit prior to activating eTransmit. eTransmit is accessed through the Add-Ins panel.



2. Since it is Stantec's Best Practice to establish separate links for every Revit model (by setting nested links to "Overlay" and NOT "Attachment") be sure to only include your model in the eTransmit settings. Each model from a consultant or discipline should be transmitted as an independent file.

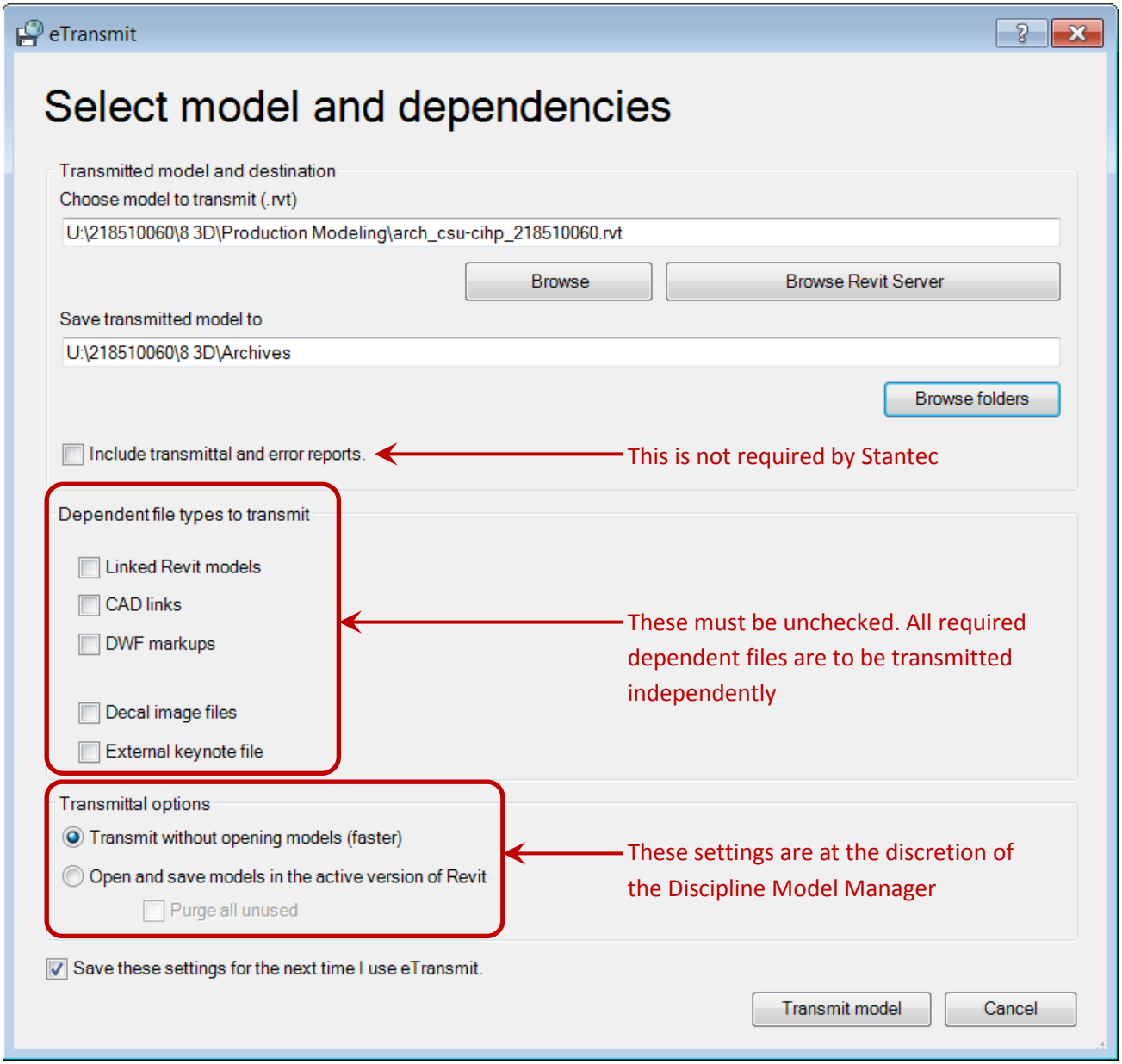
3. Refer to the screen capture on the following page for desired eTransmit settings. The folder location for transmitted models should conform with the project's File Transfer Protocols.

4. Considerations when using eTransmit:

    - It does not perform automatic file compression. If needed, to assist in reducing large file sizes, the transmitted file should be opened and saved with the "Compact Central Model" option.

- It does not remove orphan paths to nested linked Revit or CAD files that are not transmitted. If needed, the transmitted file should be opened and orphan paths removed through Manage Links.
- It does not maintain static snapshots of CAD files in the model that were linked but not transmitted.
- Purging unused elements requires the slower transmittal option but this may be required to assist in reducing larger file sizes.

5. eTransmit settings should be as follows:



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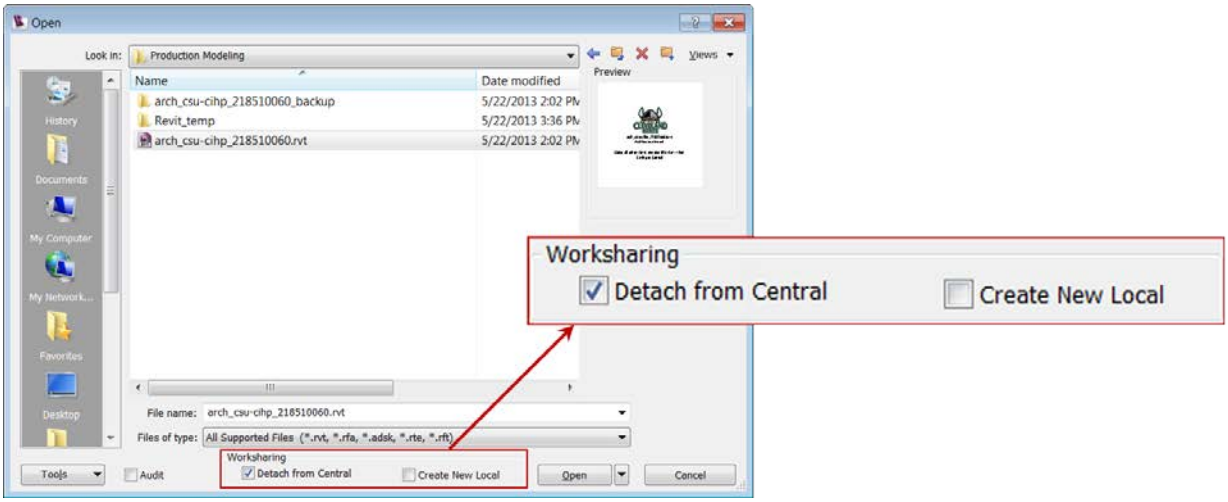
3.0 Option 2: Manual Detach from Central

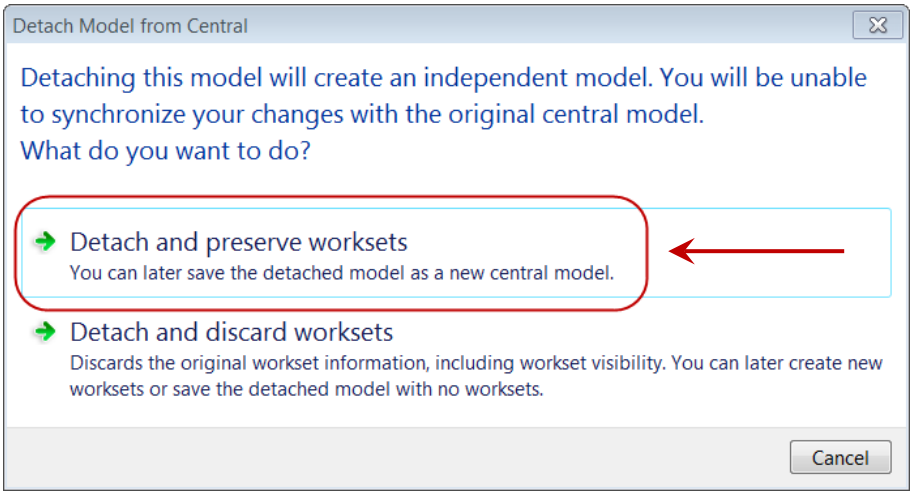
If eTransmit is not used, the following steps should be implemented to create a clean detached from central model for export.

1. Using Windows Explorer, **copy and paste the central file into the appropriate export folder** adhering to the project's File Transfer Protocols. Do not rename the file.

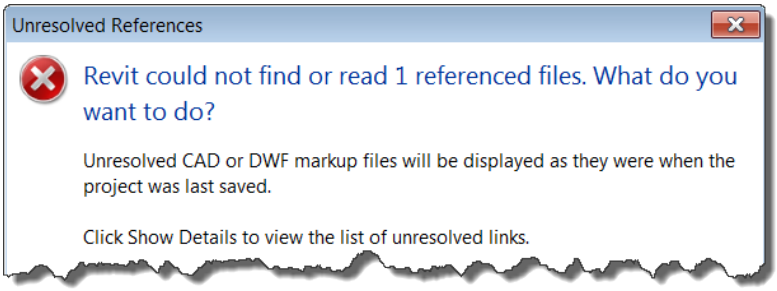
2. Open the new file "Detach from Central"



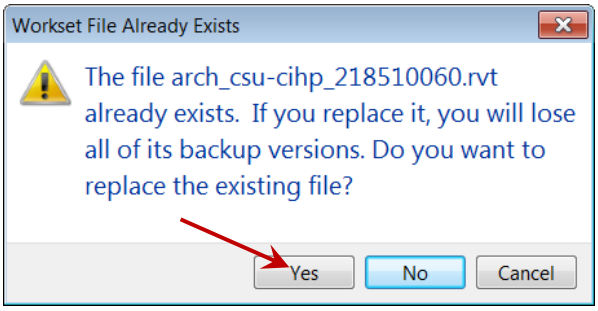
3. Be sure to select "Detach and preserve worksets"



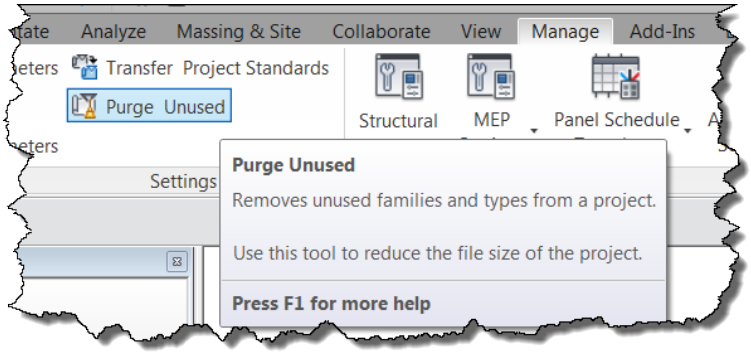
4. If the model contains linked files (Revit, AutoCAD, DWF) you will receive the following Unresolved References warning. This can be ignored or you may choose to remove the references through Manage Links.



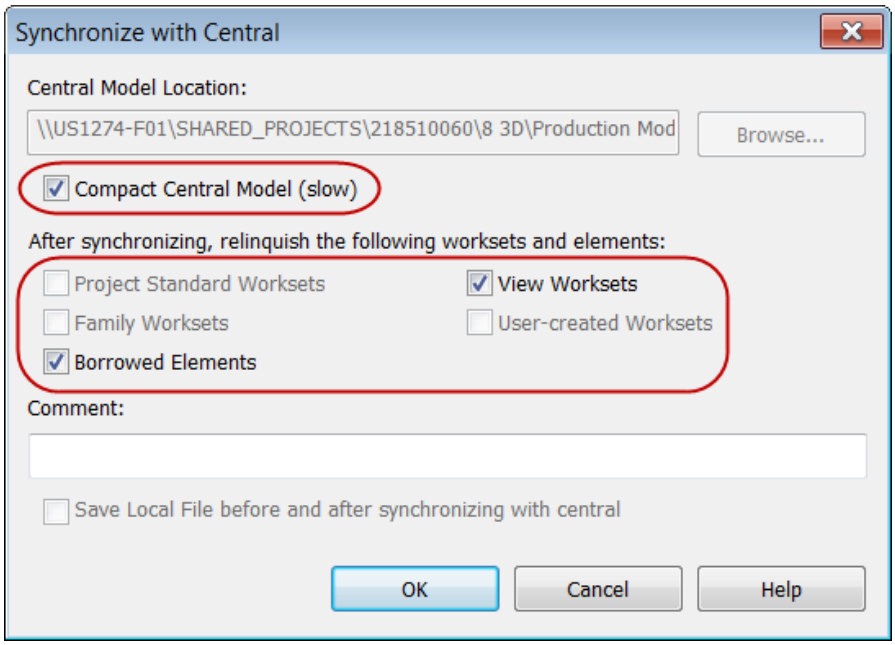
5. Save the file. You will receive the following warning. Select "Yes".



6. Remove ALL unused elements out of the model using the Purge Unused command



7. After purging the model, select Synchronize with Central and select "Compact Central Model". Also, be sure to relinquish ALL worksets and elements. The file is now ready for distribution.



8. Considerations when using Detach from Central:

- It is a Best Practice to purge unused elements to assist in reducing larger file sizes.
- It is a Best Practice to remove orphan paths to nested linked Revit or CAD files that are not transmitted. This is done through the Manage Links dialogue.
- Static snapshots of CAD files that were linked but not transmitted will remain in the model unless their paths are removed. If large amounts of CAD information are in a model it is a Best Practice to remove them through the Manage Links dialogue.
- It is a Best Practice to compact the central model to assist in reducing large file sizes.

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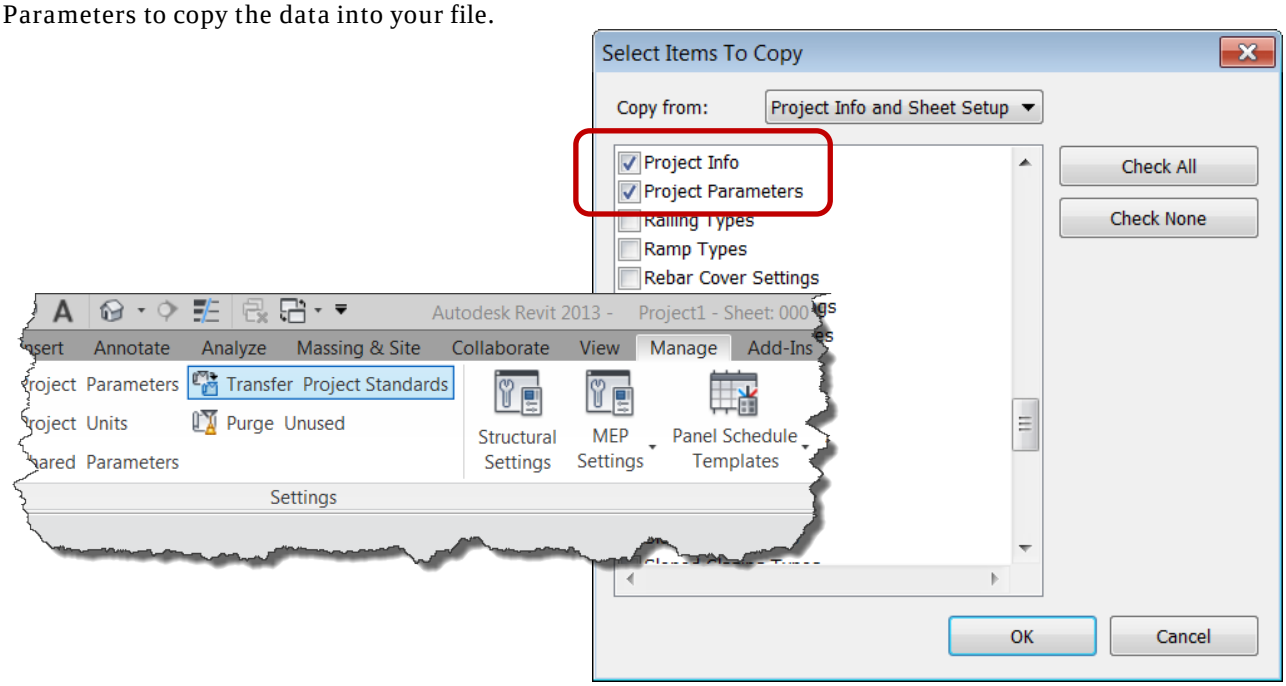
1.0 Purpose

The Master Drawing Index for the entire document set will be managed through a single Architectural Revit model. It is the responsibility of each discipline that owns a model (refer to the Model Matrix) to manage their own document set for coordination with the Master Drawing Index. This includes creating "dummy sheets" in Revit for any drawings being produced in other software such as AutoCAD. The following instructions and associated Revit files are to be used by each discipline to ensure consistency in the project information, document set management and title block graphics.

2.0 Import Project Information

1. With your project open, open the Project Info and Sheet Setup Template_Vxx.rvt file.

2. In your project, use Transfer Project Standards and be sure to just select the Project Info and Project Parameters to copy the data into your file.



3. You will probably receive a "Duplicate Types" warning. Be sure to select "Overwrite" to import the project information (project name, address, number, etc.) along with any predefined Shared Parameters used in the title block family or specific to the project.

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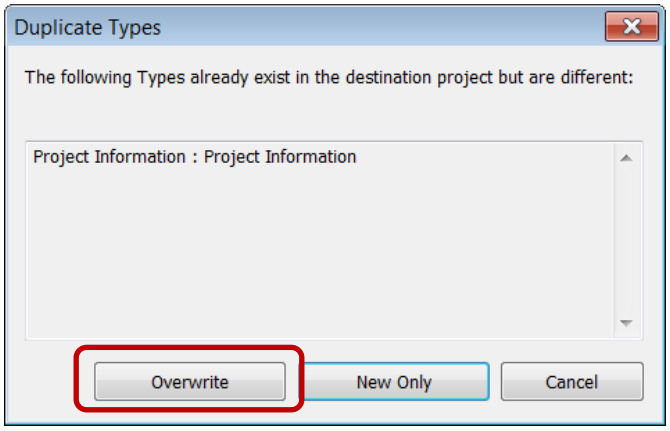
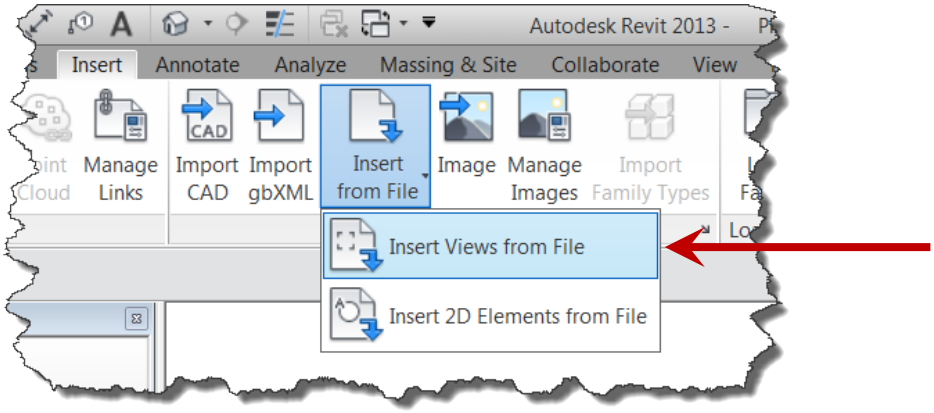


3.0 Insert Sheet Setup Information

Stantec will manage the Master Drawing Index schedule in an architectural model. The format for organizing the set is predefined in the *Project Info and Sheet Setup Template_Vxx.rvt* file. Follow these steps to coordinate sheets in each discipline's model to build the index. Note that we created Project Parameters for "Discipline" and "Discipline Sort Order". It is imperative that each discipline correctly populate these parameters for every sheet based on the sample format in this template.

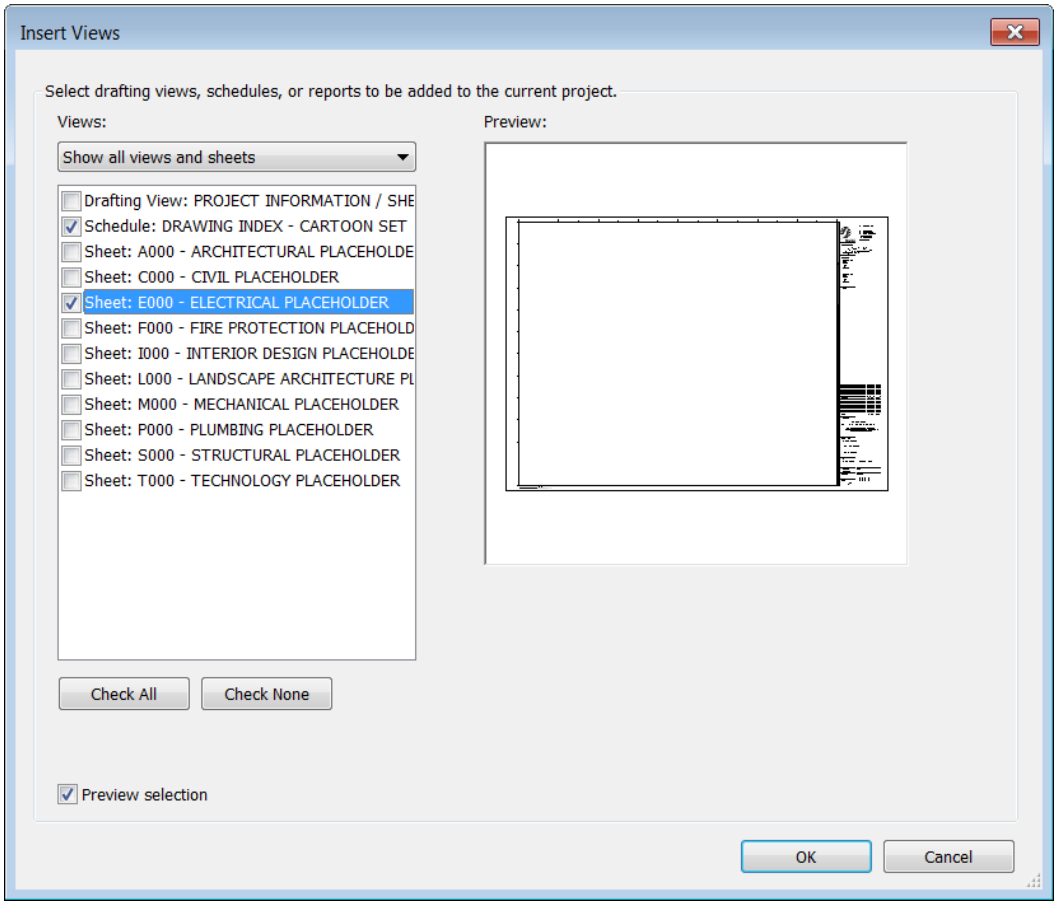
1. Use Insert Views from File and locate the *Project Info and Sheet Setup Template_Vxx.rvt* file on your server. Even though you may have the file open, you still need to locate it for this command.



2. Once the file is selected, a dialogue box will appear allowing you to select different types of views to insert into your project. With the "Show all views and sheets" option active, select the "DRAWING INDEX – CARTOON SET" schedule ***and*** the appropriate sample sheet for your discipline (refer to image on next page). You may receive a "Duplicate Types" warning that can be ignored by selecting OK.

3. A placeholder sheet with the Stantec title block and a schedule will be imported into your project. This placeholder sheet hosts the correct "Discipline" and "Discipline Sort Order" parameter values for your discipline. ***The placeholder sheet must be inserted with the schedule otherwise***

these parameter values will not be set. Once other sheets in your project are populated with these parameter values, the placeholder sheet can be deleted.



Insert Views from File dialogue box Image

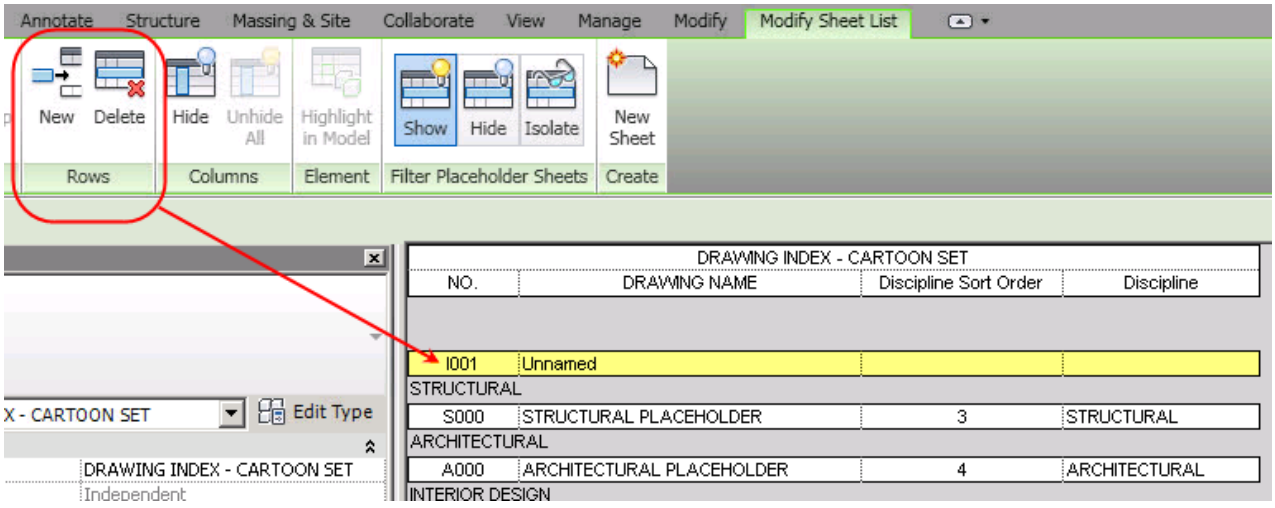
4. The DRAWING INDEX – CARTOON SET schedule (refer to image on next page) can be used to manage these project parameters. It should not be deleted and is to remain in your project to manage this data. Note the following:

   - The “Discipline” parameter is used to group drawings in the index under common headings.
   - The “Discipline Sort Order” parameter is a numeric value that is used for sorting the disciplines in the correct order in the Drawing Index. Each discipline is assigned a main number. If you need to organize drawings in sub-categories you can use decimal values.
   - It is imperative that all drawing sheets contain consistent values for these two parameters.
   - The “Discipline” and “Discipline Sort Order” parameter values are not to be changed. Any desired modifications to these parameters other than creating sub-categories described above should be directed to the project’s A/E BIM Manager.

DRAWING INDEX - CARTOON SET			
NO.	DRAWING NAME	Discipline Sort Order	Discipline
CIVIL			
C000	CIVIL PLACEHOLDER	1	CIVIL
LANDSCAPE ARCHITECTURE			
L000	LANDSCAPE ARCHITECTURE PLACEHOLDER	2	LANDSCAPE ARCHITECTURE
STRUCTURAL			
S000	STRUCTURAL PLACEHOLDER	3	STRUCTURAL
ARCHITECTURAL			
A000	ARCHITECTURAL PLACEHOLDER	4	ARCHITECTURAL
INTERIOR DESIGN			
I000	INTERIOR DESIGN PLACEHOLDER	5	INTERIOR DESIGN
PLUMBING			
P000	PLUMBING PLACEHOLDER	6	PLUMBING
FIRE PROTECTION			
F000	FIRE PROTECTION PLACEHOLDER	7	FIRE PROTECTION
MECHANICAL			
M000	MECHANICAL PLACEHOLDER	8	MECHANICAL
ELECTRICAL			
E000	ELECTRICAL PLACEHOLDER	9	ELECTRICAL
TECHNOLOGY			
T000	TECHNOLOGY PLACEHOLDER	10	TECHNOLOGY

Drawing Index Schedule Image

5. NOTE: This drawing index schedule must contain all drawing sheets for your discipline whether or not they are being produced in Revit. Drawings produced in CAD need to be added to the schedule using the New Row feature to add "dummy" rows of data. With the schedule active select New Row and add the appropriate data for the non-Revit sheets.



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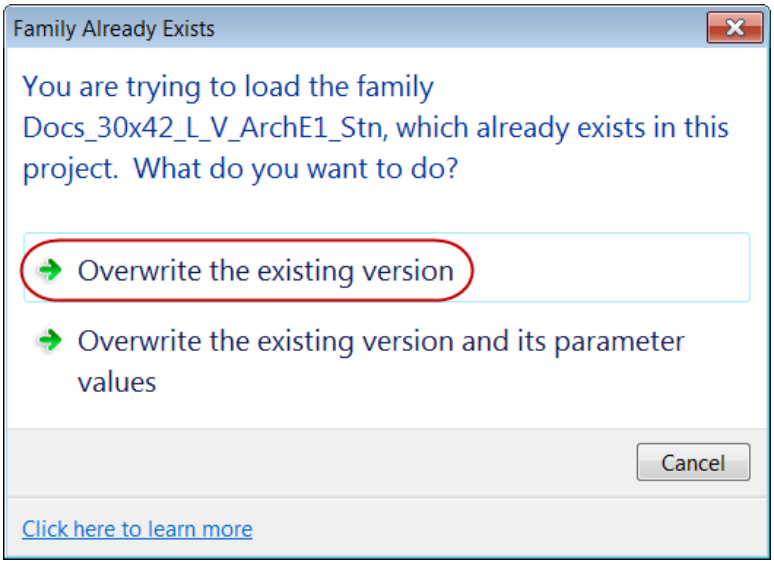
4.0 Using the Project Title Block Family

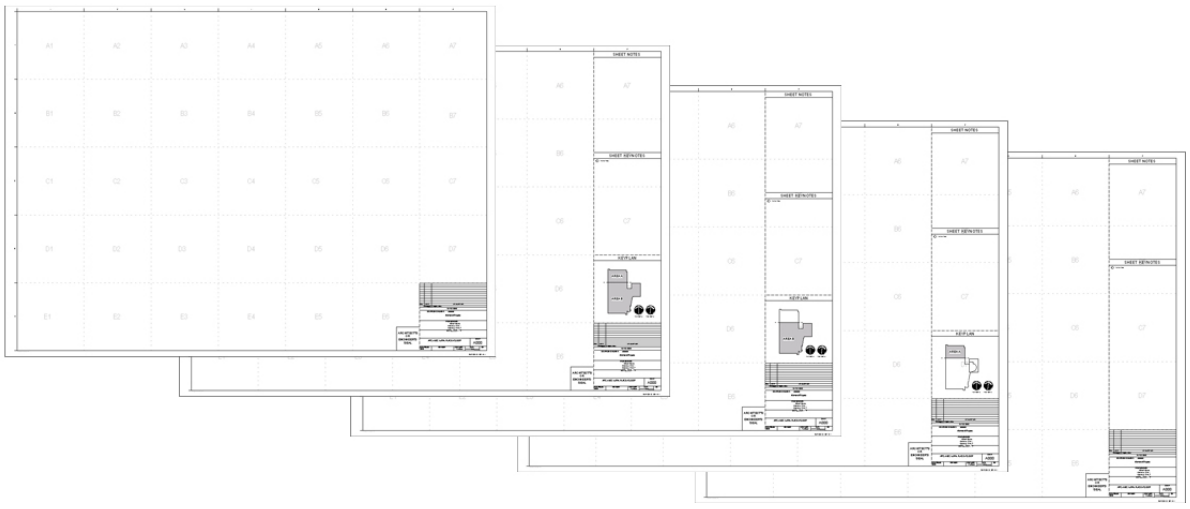
Follow these steps if the project has a custom title block either based on client specific standards or if multiple types are used (for instance, to embed a key plan).

1. Load the project's custom title block family into your project. Be sure to do this ***AFTER*** the steps above otherwise it will result in two titleblock families in the project. You will receive the following warning. Select "Overwrite the existing version".



2. The title block family includes Shared Parameters however there is no need to access the Shared Parameters .txt file since all data was inserted through Transfer Project Standards in the steps above.

3. The following is an example of a custom title block family containing predefined types that include an area designated for noteblocks and keyplans.



TAMUS/FPC Review Document Distribution Matrix

Project : 05-3300 PVAMU Engineering Classroom & Research Building (EnCarb)

Recipient	SD 100% Review			DD 100% Review			CD 50% Review		CD 100% Review		FC1 For Const. Package 1		FC2 For Const. Package 2		FC3 For Const. Package 3	
	Half	Full	BOD	Half	Full	BOD	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full
User Coordinator **Derrick Elder** Associate Director of Campus Planning PO Box 0519, Mail Stop 1307 Prairie View, TX 77446 dlelder@pvamu.edu	1	e	1	1	e	1	e	e	e	e	e	e	e	e	e	e
User Engineering **Pamela Obiomon** College of Engineering Mail Stop 1300 Prairie View, TX 77446 phobiomon@pvamu.edu	1	e	1	1	e	1	e	e	e	e	e	e	e	e	e	e
Business Affairs **Corey Bradford** Senior VP of Business Affairs PO Box 0519, Mail Stop 1300 Prairie View, TX 77446 csbradford@pvamu.edu	1	e	1	1	e	1	e	e	e	e	e	e	e	e	e	e
Interim Provost and VP **James Palmer** Academic Affairs PO Box 519 Prairie View, Texas 77446 936-261-2174 jmpalmer@pvamu.edu	e	e	1	e	e	1	e	e	e	e	e	e	e	e	e	e
SSC Facilities Services **George Garcia** Physical Plant Director PO Box 155 Prairie View, Texas 77446 936-648-6896 George.Garcia@sscserv.com	1	e	e	1	e	e	e	e	1	e	e	e	e	e	e	e
Environmental Health & Safety **Ester Chalmers / Claudelle Scott** PO Box 519 Prairie View, TX 77446 926-261-1747 eachalmers@pvamu.edu cescott@pvamu.edu	e	e	e	e	e	e	e	e	1	e	e	e	e	e	e	e
Police and Fire Marshall **Chief Keith Jamison/ Daron White** PVAMU UPD PO Box 519 Prairie View, TX 77446 936-261-1375 ktjemison@pvamu.edu dawhite@pvamu.edu	e e	e e	e e	e e	e e	e e	e e	e e	1 e	e e	e e	e e	e e	e e	e e	e e

TAMUS/FPC Review Document Distribution Matrix

Project : 05-3300 PVAMU Engineering Classroom & Research Building (EnCarb)

Recipient	SD 100% Review			DD 100% Review			CD 50% Review		CD 100% Review		FC1 For Const. Package 1		FC2 For Const. Package 2		FC3 For Const. Package 3	
	Half	Full	BOD	Half	Full	BOD	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full
PVAMU Telecommunications / IT																
Tony Moore / Rodney Moore / Michael West																
PVAMU IT																
PO Box 519																
Prairie View, TX 77446																
tamoore@pvamu.edu	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
rvmoore@pvamu.edu	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
mjwest@pvamu.edu	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
Academic Affairs	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
Demitris Cambric																
Exec. Dir. For Academic Projects and Space																
PO Box 519																
Prairie View, TX 77446																
936-261-2172																
dacambric@pvamu.edu																
Water Wastewater - InfraMark	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
Fred Alexander																
Operations Manager																
910 Anne Preston Street																
Prairie View, TX 77446																
932-574-4252																
Fredrick.Alexander@inframark.com																
Facilities Planning & Construction																
Brett Cumpton recieves all FP&C sets																
PM IV																
301 Tarrow Street, 2nd Floor																
College Station, TX 77840																
979-492-5197																
Bkarr@tamus.edu	3			4					4							
donald.montgomery@tamus.edu	1	e	1	1	e	1	1	e	e	1	e	1	e	1	e	1
cumpton@tamus.edu	1	e	1	1	e	1	1	e	e	e	e	e	e	e	e	e
Construction Materials Testing							e		1		1		1		1	
Send to FPC (Attention PM)																
Testing and Balancing							e		1		1		1		1	
Send to FPC (Attention PM)																
TOTAL:	**9**	**0**	**6**	**10**	**0**	**6**	**2**	**0**	**9**	**1**	**2**	**1**	**2**	**1**	**2**	**1**
	Half	**Full**	**Full**	**Half**	**Full**	**Full**	**Half**	**Full**	**Half**	**Full**	**Half**	**Full**	**Half**	**Full**	**Half**	**Full**
	SD			**DD**			**50%CD**		**100%CD**		**FC1**		**FC2**		**FC3**	

Total drawing half sets =	**36**	**Total full sets =**	**4**
(Note 2) Total outline spec sets =	**9**	**(Note 3) Total bound full spec sets =**	**4**
Total Basis of Design sets =	**12**		

TAMUS/FPC Review Document Distribution Matrix

Project : 05-3300 PVAMU Engineering Classroom & Research Building (EnCarb)

Recipient	SD 100% Review			DD 100% Review			CD 50% Review		CD 100% Review		FC1 For Const. Package 1		FC2 For Const. Package 2		FC3 For Const. Package 3	
	Half	Full	BOD	Half	Full	BOD	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full

NOTES:

1) This chart indicates the quantities of drawings and specifications required @ each phase by the A/E firm. These include drawings, specifications, and a "Basis of Design" in accordance with the Facilities Design Guidelines (Design Process).

2) An outline set of specifications is required for each set of drawings @ final SD.

3) A full set of printed specifications is required only for 100 % DD as mentioned in #6 and for 6 sets at 100% CDs. The total quantity of specs are dependent on keeping printed specs up to date with bid packages if changes are made. All other specifications are reviewed electronically.

4) The A/E shall also provide one full size split review set for 100% DD, 50% CD and 100% CD review meetings. The plan shall be split into A/S, Civil, M/P, and E/T for use on separate conference tables.

5) AE to upload each phase set of documents to e-Builder as PDF files. **These documents must be uploaded as soon as they are issued as they will be used for electronic review by various parties.** In addition to e-Builder, the A/E can also make documents available via an FTP site for those without e-Builder access.

6) AE to provide (2) unbound sets of specifications of 100% DD, and 100% CD Packages. Send to FPC, attention: PM - "Un-bound Specifications"

7) **"e"** denotes that party will review electronic versions only. Email notification is required to these parties to alert them that documents are uploaded to e-Builder and FTP sites.