

PRINCE GEORGE'S COUNTY, MARYLAND



Department of Permitting, Inspections and Enforcement

Third-Party Inspection Program (TPIP) Manual



2015 Edition

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I. INTRODUCTION

The Prince George's County Third-Party Inspection Program (TPIP) establishes a building inspections procedure that utilizes qualified, third-party professionals in addition to the County's Quality Assurance Inspectors. The purpose of this document is to establish the policy and guidelines for the construction process in accordance with the TPIP and to:

- Identify the types of structures that are subject to the TPIP.
- Define the responsibility of all parties.
- Standardize code application.
- Provide for an orderly and systematic approach for updating standards that apply to the TPIP.
- Ensure that the TPIP modifications are uniformly applied.
- Set forth a guideline for third-party inspectors to follow in the TPIP.

II. APPLICABILITY

Structures that are subject to the TPIP include, but are not limited to:

- All commercial structures for which a permit is obtained to construct a new building or to construct an addition to an existing structure with an estimated construction cost in excess of \$200,000. This excludes buildings or structures of Use Group R2, R3 (Town Houses and Detached Single Family Dwellings), and R4. Minor tenant work done in an existing building(s) is also excluded from the scope of the TPIP.
- All deep foundations, such as caissons and piles.
- All post-tensioned buildings.
- Buildings on problematic soil conditions.
- All elevated concrete slabs.
- Other structures determined by the Building Code Official, or their representative, to be of unusual design or where code reference standards require special architectural or engineering inspections.
- The Building Code Official may include or exclude a project from the TPIP due to its simplicity or complexity upon request from the property owner and recommendation from the Deputy Building Code Official, Inspections Division (ID).

All supplemental permits for a project shall fall under the TPIP until such time the final Use and Occupancy (U&O) is issued and that all permit requirements for the project are finalized. This includes, but is not limited to: soils and foundation construction, earth retention systems, pre-cast concrete construction, cast-in-place concrete, masonry construction, wood construction, structural steel construction, insulation and finish systems, fire protection and life safety, electrical systems, mechanical systems, sprinkler systems, fire alarm systems, U&O, etc. The Owner must provide the services of the TPIP team at all times. Residential buildings not attached to the TPIP project will be excluded.

III. DEFINITIONS AND QUALIFICATIONS

The following words and terms shall, for the purposes of this manual and the County's TPIP have the meaning delineated below. See Attachment #2, on page 23, for a more extensive list of responsibilities for many of the individuals mentioned.

NOTE: It is possible that multiple professionals share the titles defined below, for example, the term “Structural Inspector of Record” may be shared by one person who performs the foundation inspection and a second who performs inspections on the superstructure.

Agent: A full-time, qualified employee under the direct supervision of an inspecting *Registered Design Professional* retained to conduct continuous actual or assist with on site inspections and testing.

Architect of Record (AR): The *Registered Design Professional* retained by the Owner to design and specify architectural construction and whose signature and State of Maryland architectural seal appear on the County-approved architectural construction documents.

Certification: A statement of professional opinion by a qualified *Registered Design Professional* that indicates that the work under consideration, based upon their actual inspections, in their opinion and to the best of their knowledge meets the requirements of the County-approved construction documents and the County Code. Certifications must be signed and sealed by the qualified professional making the statement.

Construction Documents: Plans and other documents prepared for the purpose of obtaining a building permit.

County-Approved Plans: *Construction Documents* approved by the County including all approved revisions.

Design Engineers of Record: The *Registered Design Professionals* whose designs are included in the County-Approved Plans (includes: Electrical Engineer of Record, Fire Protection Engineer of Record, Fire Protection Systems Designer of Record, Geotechnical Engineer of Record, Mechanical Engineer of Record, and Structural Engineer of Record).

Electrical Engineer of Record (EER): The *Registered Design Professional* retained by the Owner to design or specify electrical documents and whose seal and signature appear on any electrical documents.

Electrical Inspector of Record (EIR): The *Qualified Professional* retained by the Owner to provide third-party electrical inspections and testing services as approved by the County. The EIR cannot be an individual affiliated with the *EER*.

Fabrication and Erection or Shop Drawing Documents: Written, graphic, and pictorial documents prepared or assembled after issuance of a permit describing the design, location, and physical characteristics of building components necessary for fabrication, assembly, or erection of project elements or systems. These documents usually require a supplemental County review, permit, and/or approval.

Final Inspections Report: A signed and sealed certification document from each *Third-Party Inspector of Record* that performed inspections, which indicates that the construction, having been inspected in the qualified professional's opinion and to the best of the qualified professional's belief, complies with the *County-Approved Plans* and specifications. This includes a record of all Routine Inspection Non-Compliance Reports having been satisfied (see Attachment #5, page 46).

Fire Protection Engineer of Record (FPER): The *Registered Design Professional* retained by the Owner to design or specify building fire protection and egress documents and whose seal and signature appear on any fire protection documents.

Fire Protection Inspector of Record (FPIR): The *Qualified Professional* retained by the Owner to perform third-party building fire protection and egress inspections and testing services as approved by the County. The FPIR cannot be an individual affiliated with the *FPER* or *FPSD*.

Fire Protection Systems Designer of Record (FPSD): The *Qualified Professional* retained by the Owner to design or specify fire protection system documents and whose seal and signature appear on any fire protection system documents.

Fire Protection Systems Inspector of Record (FPSI): The *Qualified Professional* retained by the Owner to perform third-party fire protection system inspections and testing services as approved by the County. The FPSI cannot be an individual affiliated with the *FPSD* or *FPER*.

General Contractor (GC): The construction company who coordinates building construction and is retained by the Owner.

Geotechnical Engineer of Record (GER): The *Registered Design Professional* retained by the Owner to design or specify earthwork and foundations and whose seal and signature appear on any geotechnical documents.

Geotechnical Inspector of Record (GIR): The *Qualified Professional* retained by the Owner to perform third-party geotechnical inspections and testing services as approved by the County. The GIR cannot be an individual affiliated with the *GER*.

Inspection: The periodic observation of work and the performance of tests for certain building's or structure's code compliance for a system or group of assembled components to assure compliance with the County Code.

Inspection and Testing Agency: Agency or agencies retained by the Owner and approved by the Building Code Official or their designee to perform special inspections and materials testing as required by the International Building Code (IBC) and the County.

Mechanical Engineer of Record (MER): The *Registered Design Professional* retained by the Owner to design or specify mechanical documents and whose seal and signature appear on any mechanical documents.

Mechanical Inspector of Record (MIR): The *Qualified Professional* retained by the Owner to provide third-party mechanical system inspection and testing as approved by the County. The MIR cannot be an individual affiliated with the *MER*.

Non-Structural Elements: Elements of a building that are not primary or secondary structural elements such as exterior curtain walls and cladding, non-load bearing partitions and stair railings. Inspection is required to assure compliance with the applicable County Building Code.

Owner: Owner or owners of the free hold premises or lesser estate therein; a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, or lessee in control of a building/structure to be constructed/altered or the Owner's duly authorized representative.

Pre-Engineered Structural Elements: Structural elements specified by the Structural Engineer of Record, but which may be designed by a specialty registered design professional. Examples may include: open web steel joists and joist girders; wood trusses; combination wood, metal and plywood joists; pre-cast concrete elements; prefabricated wood or metal buildings; tilt-up concrete panel reinforcement and lifting hardware.

Primary Structural System: The combination of elements that serve to support the weight of the building's structural shell, the applicable live load based upon use and occupancy, and environmental loads such as snow, wind, thermal loads and seismic loads. Items such as curtain wall members, non-load bearing walls, or exterior facades are not part of the primary structural system.

Qualified Professional: An individual practicing within their area of expertise meeting the qualifications established by the County through this document and the requirements of the State Board of Licensed Professionals (see Attachment #2, page 23, for field specific qualifications).

Quality Assurance Inspector (QAS): The individual(s) employed by the Department of Permitting, Inspections and Enforcement (DPIE), Inspections Division (ID) who oversees all third-party inspections and any projects falling within the purview of the TPIP.

TPIP Certification Form: The final, signed and sealed certification documents (includes all field specific, standard certification forms) from each *Third-Party Inspector of Record* that performed inspections, which indicate the construction elements specified for their inspection that, having been inspected and in the qualified professional's opinion and to the best of their belief, comply with the *County-Approved Plans*, County Code and specifications (see Attachment #6, page 47).

Registered Design Professional: A professional licensed in the State of Maryland and practicing within their field of expertise.

Routine Inspection Report: Written documentation of each inspection done by a Third-Party Inspector of Record (see Attachment #4, page 43) or their agent.

Secondary Structural Elements: Building elements that are structurally significant for the function they serve, but are not necessary for the stability of the primary structure. Examples include: support beams above the primary roof structure which carry a chiller, elevator support rails and beams, retaining walls independent of the primary building, flagpole or light pole foundations, false work required for the erection of the primary structural system, steel stairs or railings, etc.

Statement of Third-Party Inspections (STPI): A form (see Attachment #1, page 11) prepared by the Owner and appropriate *Registered Design Professionals* of Record which is submitted by the permit applicant for review and approval by the County. The STPI identifies the names and qualifications of all professionals involved. The STPI is required as a condition of permit issuance.

Structural Engineer of Record (SER): The *Registered Design Professional* retained by the Owner to design or specify structural documents and whose signature and seal appear on such documents.

Structural Inspector of Record (SIR): The *Qualified Professional* retained by the Owner to provide third-party structural inspection and testing, as approved by the Building Code Official or their designee. The SIR cannot be an individual affiliated with the *SER*.

Third-Party Inspector(s) of Record (TPIR): The qualified, third-party professional(s) retained by the Owner and named in the STPI to provide discipline specific inspections and material services as approved by the Building Code Official or their designee (includes: *EIR, FPIR, FPSI, GIR, MIR* and *SIR*).

IV. PRE-PERMIT PHASE

A. STATEMENT OF THIRD-PARTY INSPECTIONS

Owners of projects that are subject to the TPIP must submit, as part of the permit application, a Statement of Third-Party Inspections (STPI). The STPI shall identify the names of all design professionals of record, Third-Party Inspectors of Record (TPIR), and the Inspection and Testing Agency retained by the Owner to provide inspections and/or testing services. Refer to Attachment #1, page 11, in this document. An individual's signature on the STPI certifies that they have read and understand their role under the TPIP.

The Fire Protection System Designer(s) of Record (FPSD) is not required to be listed in the STPI. *It is the responsibility of the Owner and General Contractor to make the Third-Party Inspector aware of their contact information within five (5) business days of their contract approvals.*

The Building Code Official, prior to the pre-construction meeting, must approve the qualifications of proposed inspection professionals and testing agencies, including evidence of laboratory accreditation and technician certification from recognized entities.

NOTE: It must be clearly understood that each of the Third-Party Inspectors of Record (EIR, FPIR, FPSI, GIR, MIR, and SIR) must be unaffiliated with the Registered Design Engineers of Record (EER, FPER, FPSD, GER, MER, and SER) and the installer/contractor. It is assumed that the design professionals will field verify the installation of their designed or specified documents; HOWEVER, this verification is not part of the TPIP process. In addition, the Third-Party Inspectors of Record (EIR, FPIR, FPSI, GIR, MIR, and SIR) must be unaffiliated with County officials or previous County employees as outlined in the County Code of Ethics. It is the Third-Party Inspection Agency's responsibility to be in full compliance with the County Code of Ethics.

B. FEES AND COSTS

Fees and costs associated with the performance of TPIR shall be borne by the Owner. Other than the standard permit fees, no additional County permitting fees are attached to the TPIP.

C. RELEVANT CODES AND STANDARDS

The applicability of a project to any technical codes or standards referenced in these requirements shall be determined by the provisions of the relevant codes or standards in effect as of the submission date of the permit application. These requirements shall not be modified.

D. PENALTIES

Participating providers are subject to penalties for failing to enforce the provisions under the TPIP. Enforcement of these penalties is at the discretion of the Building Code Official or their representative. These penalties are:

1. First offense - failing to enforce the County Code as outlined in this document - written warning.
2. Second offense - failing to enforce the County Code as outlined in this document - three-month suspension from participating in the TPIP.
3. Third offense - failing to enforce the County Code as outlined in this document - removal from the TPIP.

E. PRE-CONSTRUCTION MEETING

A Pre-Construction Meeting is required for every project that is subject to the TPIP as a condition of permit issuance. The meeting shall take place after the plans and the STPI have been reviewed and approved by the County and the permit has been issued.

1. PARTICIPANTS IN THE PRE-CONSTRUCTION MEETING:

The following construction team members shall participate in the meeting, as required:

- a. Owner or Owner’s duly authorized representative
- b. Electrical Inspector of Record (EIR)
- c. Fire Protection Inspector of Record (FPIR)
- d. Fire Protection Systems Inspector of Record (FPSI)
- e. Geotechnical Inspector of Record (GIR)
- f. Mechanical Inspector of Record (MIR)
- g. Structural Inspector of Record (SIR)
- h. General Contractor (GC)
- i. County Staff – Quality Assurance Inspector (QAS)
- j. Architect of Record (AR)
- k. Other parties deemed appropriate by the Owner or County

2. PURPOSE OF PRE-CONSTRUCTION MEETING:

The purpose of the Pre-Construction Meeting is to review the inspection requirements of the project and establish communication. The Owner or Owner’s representative organizes and conducts the meeting. At a minimum, the following shall be discussed:

- a. Construction Project Requirements: Construction requirements of the Prince George’s County TPIP, including construction methods, site safety, fire hazard prevention and temporary electrical installations during the construction process.
- b. Responsibilities: Clarify the roles and responsibilities of each party. Refer to the Definitions and Attachment #2, page 23.
- c. Communication: Organize channels of communication between the County, Owner's representatives, and members of the construction and design teams. Identify who is to obtain copies of various inspections reports and certifications and the time limitation on submitting those reports to QAS. Verify that the contact information on the Statement of Third-Party Inspections (Attachment #1, page 11) is correct.
- d. Phased Construction: Requirements for phasing or separations of permits and certificates of completion.
- e. Schedule of Inspections: Estimate a timeline for building construction and identify areas of concern to specific inspections (see Attachment #3, page 42, for guidance).

Site visits for each Third-Party Inspector of Record must be at intervals appropriate to the stage of construction or as otherwise agreed by the Owner, Design Professional, or County representative. Each inspection must be documented for the QAS to become clearly familiar with the progress and quality of the work completed and to determine, in general, if the work is being performed in a manner conducive to completion in accordance with the County-Approved Plans.

The parties involved with the project will also review the scope of the inspections. Issuance of the building permit will follow the County's approval of the STPI and confirmation of the Pre-Construction Meeting.

V. CONSTRUCTION PHASE

A. REPORTS AND COMMUNICATION FLOW

The Third-Party Inspectors of Record (TPIR) and the Inspection and Testing Agencies shall provide Routine Inspection Reports as required by the Statement of Third-Party Inspections and this TPIP document within five business days of inspection. Refer to Attachment #4, page 43, for a sample report form.

Site visits for each TPIR must be at intervals appropriate to the stage of construction or as otherwise agreed by the Owner, Design Professional, and the Building Code Official or their representative. Each visit must be documented, in writing, for the QAS to become clearly familiar with the progress and quality of the work completed and to determine, in general, if the work is being performed in a manner conducive to completion in accordance with the County-Approved Plans. The TPIR shall notify QAS if their services have not been requested for a project in a manner consistent with the normal construction schedule of a similar building, or if they suspect that a project is proceeding without inspections.

Reports shall include: the agents name, permit number, supplemental permit number(s), street address, and project name, as well as the TPIR, company, and phone number. Each report shall be prepared in a manner that is legible, describes what was inspected, and any modifications or deficiencies encountered. Follow-up reports shall be prepared when deficiencies have been corrected and inspected. These reports shall clearly indicate compliance or non-compliance. Reports shall also indicate if work is proceeding without inspection approval.

If the Routine Inspections Report includes deficiencies, the Report shall describe the nature and specific location of the deficiency and include a description of the corrective action recommended by the Registered Design Professional of Record. If a similar deficiency exists throughout the project, it may be so noted once, but corrections must be noted individually.

All reports shall be sent to the Owner or Owner's designee, County representative (as designated), appropriate design professionals of record, and to any such others that the Owner or

County may direct. The parties who are to receive Routine Inspections Reports will be identified and confirmed at the Pre-Construction Meeting.

B. CHANGES IN CRITICAL SERVICE

In the event that the Design Professionals or Inspection and Testing Agencies of Record are changed during the course of the project, the Owner shall notify the Building Code Official and the Quality Assurance Inspector, in writing, within one business day of the action taken by the Owner. The Building Code Official must approve or deny such replacements prior to the modification of the agreement.

The Owner shall provide to the Building Code Official a written explanation for such change prepared and signed by the departing party. It must identify the replacement organization or individual with whom they have contracted; must furnish the documentation necessary to show that such organization or individual is qualified for the work as required herein; and must provide a revised inspection agreement signed by the new party.

The departing party must provide a job status report indicating completed inspections and known deficiencies. This report must be signed and sealed by an approved professional, licensed in the State of Maryland, and practicing within their field of expertise.

DPIE may Stop Work if, in the Department's opinion, work otherwise would proceed without adequate inspection. DPIE will authorize a recommencement of work only at such time as it is satisfied that the integrity of the inspection can be assured.

The ultimate responsibility and final certification is with the replaced inspection agency. DPIE may Stop Work and withhold any Use and Occupancy until adequate and satisfactory certifications are presented to the County.

VI. POST-CONSTRUCTION PHASE

A. FINAL REPORT OF THIRD-PARTY INSPECTIONS

Upon completion of the inspections and testing, the Third-Party Inspectors of Record (TPIR) and any Inspections and Testing Agency utilized, shall submit a Final Report of Inspection to the County Quality Assurance Inspector referencing all Routine Inspection Reports issued. Refer to Attachment #5, page 46. The Final Report of Inspection is submitted after the inspection specified has been completed for the project.

1. TPIP CERTIFICATION FORM

Upon acceptance of the Final Report of Inspection, each Third-Party Inspector of Record (TPIR) and any Inspections and Testing Agency utilized, shall submit a TPIP Certification Form to the Building Code Official, Owner, and others as designated by the Owner. Refer to Attachment #6, page 47. The report must provide a professional opinion stating that, to the best

of their knowledge, information, and belief, the work observed was constructed in accordance with the County-Approved Plans, construction documents and the Prince George's County Building Code. Submit any certification forms (NFPA, UL, FM, ASCE, etc.) with the TPIP Certification Form.

B. PERFORMANCE REVIEWS

Prince George's County may periodically review the performance of any professionals utilized in the TPIP. If a professional is determined to not be performing satisfactorily, DPIE, Permitting & Licensing Division (PLD) will notify current and future permittees to provide a replacement that is acceptable to PLD.

1. FRAUDULENT/INCOMPETENT CERTIFICATIONS

PLD will utilize established Departmental guidelines for dealing with fraudulent certifications and incompetent individuals and/or agencies. These guidelines include the suspension of the acceptance of ANY certifications from the party involved and/or filing of complaints with the appropriate licensing/registration board.

2. THREATS TO PUBLIC HEALTH AND SAFETY

If DPIE's ID determines that the subject agreement constitutes a threat to public health, safety, or welfare, or is in conflict with the County, State, or other government goals or purposes, the Permittee will be notified by PLD to withdraw the third-party inspection coverage and DPIE will assign County inspectors to monitor and inspect the permitted work until such time as the situation is resolved.

ATTACHMENT #1

STATEMENT OF THIRD-PARTY INSPECTIONS

Permit applicants are required to submit a Statement of Third-Party Inspections (STPI) as a condition for permit issuance. This statement shall certify that all third-party inspections shall occur in accordance with the Third-Party Inspection Program. The STPI shall include a list of the individuals (agents), approved agencies, and firms intended to be retained for conducting such inspections and the function in which each Third-Party Inspector is serving must be clearly designated. AN INDIVIDUAL'S SIGNATURE ON THIS STPI CERTIFIES THAT THEY UNDERSTAND THE ROLE THEY ARE UNDERTAKING IN THE TPIP. Prince George's County reserves the right to require notarization of any signature included in this document.

This Attachment (Pages 11-22) may be used "as is" or may be modified to accommodate unique requirements of a specific project. The STPI must be submitted with plans and specifications as part of the permit application process. These pages must identify the project name, location, Owner, Design Engineers of Record, Third-Party Inspectors of Record (TPIR), any Inspections and Testing Agency of Record (if different from the TPIR), and the General Contractor.

The qualifications of the TPIR and/or any Inspections and Testing Agency of Record are reviewed and approved by the Building Code Official or their designee as part of the permitting process. The definitions and qualifications for individuals referenced in this STPI can be found in the Prince George's County TPIP Manual (pages 2-5 and Attachment #2, page 23). Documentation supporting any individual's qualifications may be requested at any time and is to remain on file with DPIE.

To help assure a complete understanding of responsibilities and reporting requirements, the TPIR identified on this STPI, select DPIE representatives, and other appropriate parties must attend a pre-construction conference coordinated by the Owner. Design Engineers of Record are not required to attend this meeting unless directed otherwise by the Owner or County representative. This STPI and the qualifications of the TPIR and/or any Inspection and Testing Agency are reviewed again by County Code Officials and approved at the Pre-Construction Meeting prior to the issuance of a permit.

The Fire Protection System Designer(s) of Record (FPSD) is not required to be listed in the STPI. It is the responsibility of the Owner and General Contractor to make the County employed Quality Assurance Inspector aware of their contact information within five (5) business days of their contract approvals.

NOTE: It must be clearly understood that each of the Third-Party Inspectors of Record (EIR, FPIR, FPSI, GIR, MIR and SIR) selected must be unaffiliated with the Design Engineers of Record (EER, FPER, FPSD, GER, MER, and SER) and the installer. It is assumed that the design professionals will field verify the installation of their designed or specified documents; HOWEVER, this verification is not part of the TPIP process.

Building Case/Permit Number: _____

Project Name: _____

**PRINCE GEORGE'S COUNTY
DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT**

STATEMENT OF THIRD-PARTY INSPECTIONS

Building Address: _____
Address

City, State, Zip Code

Owner: _____
Company's Legal Name Phone #

Address

City, State, Zip Code

Officer: _____
Name Title Phone #

Address

City, State, Zip Code

Resident Agent/Program Contact: _____
(Owner's Authority) Name Phone #

Address

City, State, Zip Code

The authority for implementing this Third-Party Inspection Procedure is found in the 2003 IBC, Section 109, titled, "INSPECTIONS." The undersigned hereby agrees that inspections of the structure being constructed under Building Case Number _____ will be carried out in compliance with the rules and procedures outlined in the Prince George's County TPIP Manual.

The Owner further agrees that compliance with this agreement and procedures during construction is a requirement for the issuance of a valid Use and Occupancy Certificate at the completion of construction.

Building Case/Permit Number: _____

OWNER: _____
Full Legal Name (Printed)

Signature

Address

City, State, Zip Code

Telephone Number: _____ Date: _____

ARCHITECT (AR): _____
Company Name (Printed)

Officer's Name and Position (Contact)

Signature

Title

MD Registration Number

Address

City, State, Zip Code

Telephone Number: _____ Date: _____

GENERAL CONTRACTOR (GC): _____
Full Legal Name of Company

On Site Representative's Full Legal Name (Printed)

Address

City, State, Zip Code

Telephone Number: _____ Date: _____

Building Case/Permit Number: _____

DESIGN ENGINEERS OF RECORD

ELECTRICAL ENGINEER OF RECORD (EER):

_____ Full Legal Name (Printed)

_____ Signature

_____ MD Registration Number _____ Company Name

_____ Address

_____ City, State, Zip Code

Telephone Number: _____ Date: _____

FIRE PROTECTION ENGINEER OF RECORD (FPER):

_____ Full Legal Name (Printed)

_____ Signature

_____ MD Registration Number _____ Company Name

_____ Address

_____ City, State, Zip Code

Telephone Number: _____ Date: _____

Building Case/Permit Number: _____

STRUCTURAL ENGINEER OF RECORD (SER):

Full Legal Name (Printed)

Signature

MD Registration Number

Company Name

Address

City, State, Zip Code

Telephone Number: _____ Date: _____

FIRE PROTECTION SYSTEM INSPECTOR (FPSI):

Full Legal Name (Printed)

Signature

MD Registration Number

Company Name

Address

City, State, Zip Code

Telephone Number: _____ Date: _____

Building Case/Permit Number: _____

This Statement of Third-Party Inspections is submitted as a condition for permit issuance in accordance with the Prince George's County TPIP requirement. Third-Party Inspectors of Record shall keep records of inspections and testing. They shall furnish inspection and test reports to the County and to the Registered Design Professionals of Record, as appropriate. All discrepancies shall be brought to the attention of the contractor for correction. Documents for corrective work must be prepared, signed and sealed by the appropriate Registered Design Professional and must carry the County stamp of approval. Discrepancies must be corrected and re-inspected prior to advancing to the next stage of construction. If the discrepancies are not corrected within a reasonable period of time, the discrepancies shall be brought to the attention of the Building Code Official and to the Registered Design Professionals of Record, as appropriate. Routine Inspection Reports shall be submitted periodically at a frequency agreed upon by the Owner and the County prior to the start of work (typically at the Pre-Construction Meeting). Test reports shall be submitted within ten (10) days of the completion of the test to the County. A Final Report of Third-Party Inspections documenting completion of all required inspections and correction of documented discrepancies shall be submitted prior to the issuance of the Final Use & Occupancy permit.

Prepared by Owner:

Type or Print Name Date
Signature_____

Reviewed by Design Professional of Record:

Type or Print Name Date
Signature_____

Building Code Official's (or Representative's) Acceptance:

Type or Print Name Date
Signature_____

ATTACHMENT #2

RESPONSIBILITIES AND ROLES

A. GENERAL RESPONSIBILITIES

1. PERSONNEL QUALIFICATIONS

Except for the Registered Design Professional registered in the State of Maryland, all field personnel shall be certified by examination through ACI, AWS, ASNT, NICET, WACEL, or other organizations whose programs are recognized by the County and approved in writing by the Building Code Official. Inspection and Testing Agency personnel shall perform only those services in which they have demonstrated competency through such a recognized certification or registration program and shall be under the direct supervision of a Maryland Registered Design Professional. All inspections and tests conducted by an engineering laboratory must be conducted under the direct guidance and responsibility of a professional engineer/architect registered in the State of Maryland and approved by the Department of Permitting, Inspections and Enforcement, Permitting & Licensing Division (PLD). The Third-Party Inspector of Record (TPIR) shall submit qualification documentation, for approval by the County, of agents (inspection personnel) assigned to the project prior to the Pre-Construction Meeting. Agents (inspection personnel) are being required to demonstrate proof of competence in the areas they will be inspecting. Firms may qualify their agents on a yearly basis. It shall be the responsibility of any firm to notify the County, PLD, immediately upon any personnel changes. Otherwise, any inspections by unapproved agents will be rejected.

Unusual Functions: In the event there is no certification program applicable to a specific trade or function, the TPIR shall submit a signed statement attesting to the competency of personnel and identifying the basis upon which such statement is made.

2. LABORATORY QUALIFICATIONS

Laboratory facilities must be accredited for the testing conducted by an agency such as AALA, NVLAP, WACEL, or other organizations whose programs are recognized by the County and approved in writing by the Building Code Official. All laboratory facilities must meet the requirements of ASTM E329, ASTM D3740, and ASTM C1077 in addition to the requirements outlined in this Program. The TPIR shall accredit on-site laboratory facilities as an extension of an accredited laboratory. The TPIR shall submit resume and documentation, for approval by the County, of inspection and testing personnel and laboratories prior to the Pre-Construction Meeting.

3. PRINCIPAL PARTIES

The following are general responsibilities of the principal parties to the constructed project that are affected by Third-Party Inspections. This list is not intended to be all-inclusive. The Owner or the Building Official or his designee may assign to the parties identified below

and to others additional responsibilities. Those responsibilities will be explained and confirmed at the Pre-Construction Meeting.

Owner (Owner's Representatives):

- Submits permit applications that include a complete statement of inspections.
- Retains registered Professional Engineers and Architect of Record, who are duly registered in the State of Maryland, and all Third-Party Inspectors of Record.
- Prepares estimated time schedules.
- Conducts Pre-Construction Meeting in conjunction with the Architect of Record.
- Notifies the County of the starting date of the project prior to the initiation of construction (72 hours advanced notification is required on all projects).
- Oversees the design, construction, and permitting for the project.
- Notifies the County, in writing, concerning any changes in the third-party inspections team and reasons for those changes.
- Assures that inspection reports are delivered to the County within five working days of issuance.
- Verifies full-time construction inspections and testing of all stages of construction as required.
- Reviews site visits of all stages of construction by the inspection team and the Architect of Record to become familiar with the progress and quality of work completed and to determine, in writing, if the work is being performed in accordance with the approved plans and contract documents.

Architect of Record (AR):

- Reviews and approves, as appropriate, concrete mix designs.
- Reviews and approves construction bracing designs, mortar and grout mix designs and other building element designs that affect the approved architectural construction documents for conformance with those documents.
- Reviews construction observation and testing reports provided by the Geotechnical Engineer of Record and/or the Inspection and Testing Agency of Record that affects the County-approved architectural construction documents.
- Notifies the County and Owner of any architectural modifications and changes made to help assure that the structure meets the requirements of the County-approved construction plans, documents, Prince George's County Building Code and Maryland Accessibility Code. The changes must be reviewed and approved by PLD prior to construction and or modifications.
- Visits the site at intervals appropriate to the stage of construction or as otherwise agreed by the Owner and the Architect, in writing, to become clearly familiar with the progress and quality of the work completed. Also, determines, in general, if the work is being performed in a manner indicating that the work, when completed, will be in accordance with the contract documents.
- Assures that all other agents are making necessary inspections, reviews inspection results, and monitors construction progress along with any corrections to code deficiencies.

Design Engineers of Record:

(Includes: EER, FPER, FPSD, GER, MER, and SER.)

- Prepares and submits design modifications/recommendations, specifications, and construction criteria including related design calculations to the County for review and approval.
- Reviews all construction plans and specifications as approved by the County.
- Reviews and approves shop drawings.
- Submits required shop drawings to the County for approval.
- Provides guidance and professional opinions to respond to inspection reports that indicate that the construction does not meet the requirements of the County-approved construction documents.
- Takes appropriate action if conditions differ from those anticipated in the design and notifies the Owner and the County.
- Notifies the County and Owner of modifications and changes made to help assure the structure meets the County-approved construction plans, documents, and Prince George's County Building Code.

General Contractor (GC):

- Obtains all required permits for temporary facilities such as construction and storage trailer, cranes, power, signs, etc.
- Keeps a copy of the County-approved construction documents and permits posted on the site at all times.
- Provides the means, methods, and materials of construction.
- Coordinates construction schedule with the Owner so that it is completed per their plan.
- Takes necessary action to assure a safe jobsite and fulfills OSHA and other job site safety responsibilities.
- Submits construction documents to the County as identified at the Pre-Construction Meeting.
- Maintains an inspection log (Attachment #7, page 50) on site, to be completed by the inspector when the inspection is done.
- Maintains a complete set of inspection records and files on the job site.
- Notifies and coordinates with subcontractors all provisions of this agreement.
- Notifies the County and appropriate Design Professionals of Record of construction schedules as identified at the Pre-Construction Meeting.

Third-Party Inspectors of Record (TPIR):

(Includes: EIR, FPIR, FPSI, GIR, MIR, and SIR.)

- Performs inspections at intervals appropriate to the stage of construction or as otherwise agreed by the Owner, design professional or County representative.
- Documents, in writing, to demonstrate clear familiarity with the progress and quality of the work completed and to determine, in general, if the work is being performed in a manner conducive to completion in accordance with the County-Approved Plans (see Attachment #4, page 43).

- Notifies Architect of Record, Owner, County employed Quality Assurance Inspector, and any other pertinent individuals of deviations from approved construction documents.
- Submits a Final Report of Inspection to the County Quality Assurance Inspector referencing all Routine Inspection Reports issued upon completion of inspections and testing by the Third-Party Inspectors of Record (TPIR) and any Inspections and Testing Agency utilized. Refer to Attachment #5, page 46. The Final Report of Inspection is submitted after the inspection specified has been completed for the project.
- Submits a TPIP Certification Form to the County, Owner, and others as designated by the Owner upon acceptance of the Final Report of Inspection. Refer to Attachment #6, page 47. The report must provide a professional opinion stating that, to the best of their knowledge, information, and belief, the work observed was constructed in accordance with the County-Approved Plans and all applicable County, State, and National Codes.
- Submits any discipline specific, standard certification forms (NFPA, UL, FM, ASCE, etc.) with the TPIP Certification Form.
- Completes Contractor's inspection log upon completing inspection (Attachment #7, page 50).

Testing Laboratory Engineer of Record if different from TPIR:

- Performs construction materials testing services to meet Third-Party Inspections or County Building Code requirements.
- Completes Contractor's inspection log upon the completion of testing (Attachment 7, page 50).

B. FIELD SPECIFIC RESPONSIBILITIES

1. SOILS AND FOUNDATIONS

The purpose of this section is to describe the TPIP responsibilities associated with soil-related conditions and/or foundation systems.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Geotechnical Engineer of Record (GER):

- Prepares and issues a geotechnical report offering professional opinions of the subsurface conditions likely to affect the design and the proposed construction.
- Prepares and issues, for review and approval by the County, foundations and/or foundation systems work that will be performed.
- Prepares design criteria for foundations and/or foundations systems.
- Reviews and approves architectural and/or structural components whose design is based on recommendations prepared by the GER.
- Revises geotechnical recommendations if site soil or groundwater conditions differ materially from conditions indicated on the approved geotechnical report and coordinates changes with the design professionals of record responsible for the structural design of foundations, deep foundations, or other types of foundation systems.

- Reviews all geotechnical reports prepared in conjunction with the site work or building construction and provides additional recommendations.
- Takes appropriate action if subsurface conditions differ materially from those anticipated in the geotechnical report and notifies the Owner and the Building Code Official.

Geotechnical Inspector of Record (GIR):

- Performs specified inspections to determine materials' quality and in-place density tests for compliance with the County-approved construction documents.
- Gives notice to proceed to the contractor, Owner and the County's QAS that the foundation system is suitable for the erection of the superstructure. This written approval must be received prior to any superstructure construction.
- Notifies QAS immediately if the Contractor is proceeding against direction.
- Performs specified inspections of foundations to determine their in-place load-bearing capacity:
 - a. Piling:** Inspections shall include inspection of piles before, during, and after driving. Inspection reports shall contain an evaluation of the pile capacity based on driving resistance, and dynamic or static pile testing. Pile driving records shall be submitted to the County prior to placement of pile caps.
 - b. Piers:** Inspections shall include concrete, steel reinforcement, orientation and shape of caissons, and bearing capacity at the base of the caisson. Inspection reports shall be submitted to the County prior to the placement of grade beams.
 - c.** Determines any special monitoring required for the property or adjacent neighborhood prior to the start of a phase of construction that may affect adjacent properties.
- Performs inspections of shallow footings and foundations systems, including shallow foundations, foundation walls, mats, slabs, etc. Inspections of cast-in-place concrete shall include formwork, monitoring the placement of concrete, concrete reinforcement, and the dimensions, shapes and locations of footings, slabs, and foundation walls.
- Performs inspections of subgrade prior to the construction of footings and slabs for compatibility of bearing materials and groundwater conditions with the geotechnical report.
- Performs specified inspections of structural fill material prior to, during, and following its placement for compliance with approved structural fill specifications.
- Perform inspections to determine those materials' quality and in-place density tests for compliance with the County-approved construction documents.
- Submits a field compaction report for all classes of fill on the site to assure structural fills are constructed in accordance with the County-Approved Plans or documents.
- Inspects and certifies that the soil bearing capacity meets or exceeds the capacity specified in the construction documents.

- Submits foundation and foundation system inspection reports, laboratory reports, test data and foundation records to the Architect of Record for review, among others designated by the County and/or Owner.
- Notifies the County and Owner of geotechnical modifications and changes made to help assure the structure meets the requirements of the County-approved construction documents and Prince George's County Building Code.

2. EARTH RETENTION SYSTEMS

The purpose of this section is to describe the TPIP responsibilities associated with earth retention systems.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Structural Engineer of Record (SER):

- Reviews and approves concrete and mortar mix designs.
- Reviews all concrete and mortar strength test reports and delivers only the 28-day test results to the County, unless construction will proceed on less cured concrete. In which case the report showing adequate strength, covered by the engineers seal and criteria, shall be delivered to QAS immediately.
- Reviews and approves construction bracing designs, mortar and grout mix designs, and other building element designs that affect the approved structural construction documents for conformance with those documents.
- Establishes criteria for removal and reshoring of formwork.
- Reviews construction observation and testing reports provided by geotechnical professionals.
- Reviews and approves earth retention system designs and recommendations prepared by other design professionals.
- In addition to structural design, the construction documents shall include the following:
 - Adjoining Properties - recommendations for protecting adjoining properties, including existing public and private streets.
 - Slope Protection - specification of responsibility for protecting all slopes in accordance with general practice, throughout the course of the project.
 - Dewatering - any requirements for dewatering of the excavation that are specified or assumed in the earth retention system design.
 - Installation - system installation criteria, including allowable inward movement, pile installation and tieback criteria, and requirements for inspection and monitoring of the earth retention system construction and adjacent properties.

Structural Inspector of Record (SIR):

- Performs subgrade condition inspections of earth retention systems including, but not limited to:
 - Compaction - determines that materials' quality and in-place density tests comply with the County-approved construction documents and geotechnical report.

- Backfill, Drainage and Waterproofing – inspects backfill, foundation drainage systems and waterproofing during and following their placement for compliance with County-approved backfill, foundation drainage systems and waterproofing specifications.
- Obtains approval from the appropriate design professionals of record and County if inspection and testing results do not meet the requirements of the approved construction documents prior to continuing work in the affected area. When the earth retention system is to become a permanent part of the final structure, deviations shall also be subject to approval by the SER.

3. CONCRETE (PRE-CAST AND CAST-IN-PLACE)

The purpose of this section is to describe the TPIP responsibilities associated with pre-cast and cast-in-place concrete.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

THIRD-PARTY INSPECTIONS OF CONCRETE CONSTRUCTION

Verification and Inspection	Continuous ¹	Periodic ²	Reference Standard	IBC Reference
1. Inspection of reinforcing steel, including prestressing tendons and placement.		X	ACI 318: 3.5, 7.1-7.7	1903.5, 1907.1, 1907.7, 1914.4
2. Inspection of reinforcing steel welding in accordance with approved plans and documents.	X		AWS D1.4 ACI 318: 3.5.2	1903.5.2
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.	X			1912.5
4. Verify use of required design mix.		X	ACI 318: Ch. 4, 5.2-5.4	1904, 1905.2- 1905.4, 1914.2, 1914.3
5. Sampling fresh concrete and performing slump, air content, and determining the temperature of fresh concrete at the time of making specimens for strength test.	X		ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1905.6, 1914.10
6. Inspection of concrete and shotcrete placement for proper application technique.	X		ACI 318: 5.9, 5.10	1905.9, 1905.10, 1914.6, 1914.7, 1914.8
7. Inspection for maintenance of specified curing temperature and technique.		X	ACI 318: 5.11-5.13	1905.11, 1905.13, 1914.9
8. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	X X		ACI 318: 18.18 ACI 318: 18.16.4	
9. Erection of pre-cast concrete members.		X	ACI 318 Ch. 16	
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	ACI 318: 6.2	1906.2

¹ Continuous means inspections accomplished during the placement of the work

² Periodic means an inspection accomplished prior to the placement of concrete.

a. PRE-CAST CONCRETE

Architect of Record (AR) / Structural Engineer of Record:

- Reviews and approves pre-cast concrete and mix designs.

Structural Inspector of Record (SIR):

- Verifies that a precast concrete fabricator that is fabricating elements off-site has a quality control program that meets the requirements of the Precast/Prestressed Concrete Institute (PCI) Plant Certification Program. Alternatively, the SIR may inspect the precast plant at appropriate intervals to verify that materials, methods, products, and quality control comply with project specifications, approved fabrication and erection documents and PCI MNL-116, "Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products," and/or PCI MNL-117, "Manual for Quality Control for Plants and Production of Architectural Precast Products."
- Verifies that concrete meets the requirements of approved concrete mix designs.
- Verifies that the compressive strength of field-cured cylinders satisfies the requirements of the County-approved construction documents.
- Provides construction observation and testing services as necessary to establish that pre-cast, attachment, connections, and field construction are in compliance with the County-approved construction documents.
- Verifies that welders and weld inspections were performed in accordance with AWS D1.1, Chapter 5, Part C.
- Provides specified inspections of welded connections for conformance with the County-approved construction documents and applicable sections of the AWS D1.1, Welding Code, SJI Specifications, and AISC.

b. CAST-IN-PLACE CONCRETE

General Contractor (GC):

- Coordinates construction so that the building is capable of carrying structural loads.
- Posts the updated concrete pour schedule on the door of the field office.

Structural Engineer of Record (SER):

- Reviews and approves concrete mix designs.
- Establishes criteria for removal and reshoring of formwork.

Structural Inspectors of Record (SIR):

- Provides inspections of concrete formwork (erection and removal), reinforcing steel, post-tensioned tendons, stressed tendons, and placement of concrete as indicated below.
- Provides materials testing for concrete properties and submits test results to the Structural Engineer of Record and the County.

- Prepares test cylinders in accordance with ASTM C172. Cylinders for strength tests shall be cast, stored, transported, and laboratory-cured in accordance with ASTM C31. Field-cured cylinders shall be cured as closely as possible to the location of placement of the concrete pour they represent, and be exposed as nearly as possible to the same temperature and moisture environment, in accordance with ACI 318 and ASTM C31. Testing of cylinders shall be in accordance with ASTM C39.
- Determines when concrete strengths have achieved levels specified in the approved plans and specifications that will permit the removal of formwork and/or reshoring. The SIR shall submit a written statement indicating that the concrete strength and conditions meet or exceed project design specifications and design stripping criteria. The letter should be sent to the SER and County.

4. MASONRY

The purpose of this section is to describe the TPIP responsibilities associated with masonry building elements.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Architect of Record (AR):

- Coordinates with Structural Engineer of Record the review and approval of construction bracing design, mortar and grout mix design and other masonry building element designs and erection specifications for conformance with approved architectural construction documents.

Structural Engineer of Record (SER):

- Reviews and approves construction bracing design, mortar and grout mix design and other masonry building element designs and erection specifications for conformance with approved, structural construction documents.

Structural Inspector of Record (SIR):

- Performs inspections of masonry and in accordance with ACI, ASCE, and TMS criteria.
- Performs inspections of bracing and its removal.
- Provides testing of materials.

MASONRY - INSPECTION LEVEL 1

Inspection Task (Level 1)	Frequency of Inspection		Reference For Criteria		
	Continuous ¹	Periodically ²	IBC	ACI 530/ ASCE 5/ TMS 402	ACI 530.1/ ASCE 6/ TMS 602
1. As masonry construction begins, the following shall be verified to ensure compliance: <ul style="list-style-type: none"> a. Proportions of site prepared mortar. b. Construction of mortar joints. c. Location of reinforcement and connectors. 		X X X			Art 2.6A Art 3.3B Art 3.4
2. The inspection program shall verify: <ul style="list-style-type: none"> a. Size and location of structural elements. b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. c. Specified size, grade, and type of reinforcement. d. Welding of reinforcing bars. e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F). 	X	X X X X	Sec. 2108.9.2.11, Item 2 Sec. 2104.3, 2104.4	Sec. 1.15.4, 2.1.2 Sec. 1.12 Sec. 8.5.7 and Sec. 8.5.7.2	3.3G Art 2.4, 3.4 Art 1.8
3. Prior to grouting, the following shall be verified to ensure compliance: <ul style="list-style-type: none"> a. Grout space is clean. b. Placement of reinforcement and connectors. c. Proportions of site-prepared grout. d. Construction of mortar joints. 		X X X X		Sec. 1.12	Art 3.2D Art 3.4 Art 2.6B Art 3.3B
4. Grout placement shall be verified to ensure compliance with code and construction document provisions.	X				Art 3.5
5. Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed.	X		Sec. 2105.3, 2105.4, 2105.5		Art 1.4
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		X			Art 1.5

¹ Continuous means inspections accomplished during the placement of the work.

² Periodic means an inspection accomplished prior to the placement of concrete.

MASONRY - INSPECTION LEVEL 2

Engineered masonry in essential facilities - The minimum special inspection program for masonry designed by Section 2106, 2107, 2108 (IBC), or by chapters other than Chapters 5, 6, or 7 of ACI 530/ASCE5/TMS 402, in essential facilities (see Tables 1604.5 and 1617.6 of IBC) shall comply with the following table:

Inspection Task (Level 2)	Frequency of Inspection		Reference For Criteria		
	Continuous ¹	Periodically ²	IBC	ACI 530/ ASCE 5/ TMS 402	ACI 530.1/ ASCE 6/ TMS 602
1. From the beginning of masonry construction, the following shall be verified to ensure compliance: <ul style="list-style-type: none"> a. Proportions of site-mixed mortar and grout. b. Placement of masonry units and construction of mortar joints. c. Placement of reinforcement and connectors. d. Grout space prior to grouting. e. Placement of grout. 	X X	X X X		Ch. 8	Art 2.6A Art 3.3B Art 3.4 Art 3.2D Art 3.5
2. The inspection program shall verify: <ul style="list-style-type: none"> a. Size and location of structural elements. b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction. c. Specified size, grade, and type of reinforcement. d. Welding of reinforcing bars. e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F). 	X X	X X X	Sec. 2108.9.2.11, Item 2 Sec. 2104.3, 2104.4	Sec. 1.15.4, 2.1.2 Sec. 1.12 Sec. 8.5.7 and Sec. 8.5.7.2	3.3G Art 2.4, 3.4 Art 1.8
3. Preparation of any required grout specimens, mortar specimens, and/or prisms shall be observed.	X		2105.3, 2105.4, 2105.5		Art 1.4
4. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.		X			Art 1.5

¹Continuous means inspections accomplished during the placement of the work.

²Periodic means an inspection accomplished prior to the placement of concrete.

5. WOOD

The purpose of this section is to describe the TPIP responsibilities when construction includes wood building elements.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Structural Inspector of Record:

- Performs inspections of wood elements for conformance with the requirements of the County-approved construction documents.
- Inspects prefabricated structural elements during erection.
- Verifies the quality of all mechanical connections for conformance with the construction document and manufacturer's specifications.
- Upon completion of wood construction, including connections the SIR submits a completion report to the SER and the Building Code Official.

6. STRUCTURAL STEEL

The purpose of this section is to describe the TPIP responsibilities associated with the fabrication and erection of structural steel elements.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Structural Engineer of Record (SER):

- Verifies and approves structural members and connections designed by the steel fabricator.

Structural Inspector of Record (SIR):

- Provides inspections of structural members and assemblies performed at the fabricator's shop. Special inspections are not needed if the fabricator does not perform any welding, thermal cutting or heating operation as part of the fabrication.
- Verifies that the fabricator complies with AISC Quality Certification Program or equivalent.
- Provides inspections of structural elements, connections, welding materials, and high-strength bolts as indicated on the following table. High strength bolts and nuts shall be clearly marked with an identifiable manufacturer's mark on both the bolt head and nut. Shipments of high-strength bolts, nuts and washers, whether from manufacturer, distributor, or reseller, shall include manufacturer's current test reports for chemical composition (ASTM A751) and mechanical properties, including proof load testing (ASTM F606).
- Verifies that fabricated components meet the SER's approved designs.

- Notifies the SER and County if inspection and testing indicate that construction does not meet the requirements of the County-approved construction documents.

SPECIAL INSPECTIONS FOR STEEL MATERIALS

Verification and Inspection	Continuous ¹	Periodic ²	Reference Standard	IBC Reference
1. Material verification of high-strength bolts, nuts, and washers: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certificate of compliance required.		X	Applicable ASTM material specifications; AISC ASD, Section A3.4, AISC LRFD, Section A 3.3	
2. Inspection of high-strength bolting: a. Bearing-type connections. b. Slip-critical connections.	X	X X	AISC LRFD Section M2.5	1704.3.3
3. Material verification of structural steel: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturers' certified mill test reports required.	X X		ASTM A6 or ASTM A568 ASTM A6 or ASTM A568	1708.4
4. Material verification of weld filler materials: a. Identification markings to conform to AWS specification in the approved construction documents. b. Manufacturer's certificate of compliance required.	X X		AISC, ASD, Section A3.6; AISC LRFD Section A3.5	
5. Inspection of welding: a. Structural steel: 1. Complete and partial penetration groove welds 2. Multi-pass fillet welds 3. Single-pass fillet welds > 5/16" (7.9mm) 4. Single-pass fillet welds < 5/16" (7.9mm) 5. Floor and deck welds b. Reinforcing steel: 1. Verification of weldability of reinforcing steel other than ASTM A706. 2. Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls, and shear reinforcement. 3. Shear reinforcement. 4. Other reinforcing steel.	X X X X X	 X X	AWS D1.1 AWS D1.3 AWS D1.4 ACI 318.3.5.2	1704.3.1 1903.5.2
6. Inspection of steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection.		X		1404.3.2

¹Continuous means inspections accomplished during the placement of the work.

²Periodic means an inspection accomplished prior to the placement of concrete.

7. FIRE PROTECTION

The purpose of this section is to describe the TPIP responsibilities associated with fire protection.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Fire Protection Inspector of Record (FPIR):

- Performs inspections and meets qualifications as specified on next page.
- Provides inspection of spray-on fireproofing.
- Assures compliance with the County-approved construction documents, Prince George's County Code, Subtitle IV of the County Ordinance, and the Maryland State Fire Code.
- Submits reports of Fire Protection inspections to the Architect of Record, Owner, and Fire Code Official of PLD.
- Submits a certification to the Architect of Record, Owner, and County representative stating that the structure is ready for close-in based on the inspections performed and construction observed.
- Routinely monitors construction project for fire safety hazards during construction.
- Assures compliance with type of construction, fire ratings of components (doors, walls, floors, roofs, etc.), height and area, egress, special occupancy provisions of plans.

Fire Protection Systems Inspector of Record (FPSI):

- Meets the qualification requirements as specified on the next page.
- Performs inspections and testing of fire protection systems such as fire pumps, fire hydrants, fire standpipes, smoke control systems, emergency power systems, alarm systems, sprinkler systems, and smoke evacuation systems. Submits test results and inspection reports to the Fire Code Official for approval.

MINIMUM QUALIFICATIONS FOR FIRE INSPECTIONS & CERTIFICATION

<u>Inspection Tasks</u>	<u>Registered Professional Engineer</u>	<u>NICET Level III</u>	<u>Other Specialized Qualifications under Professional Supervision (SEE NOTE #1)</u>
<i><u>General Fire Inspections</u></i>			
Construction type	X		X, 3
Egress	X		X, 3
Interior finish	X		X, 3
Emergency lighting	X		X, 3
Fireproofing	X		X, 3
Firestopping	X		X, 3
Firewalls	X		X, 3
Patrons	X		X, 3
Rated floors/ceilings	X		X, 3
Miscellaneous, other	X		X, 3
<i><u>Fire protection Systems & Performance Testing</u></i>			
Fire Pumps	X	X	<u>X, 5</u>
Automatic Supp. Systems	X	X	<u>X, 3</u>
Standpipe Systems	X	X	<u>X, 2</u>
Fire Alarm Systems	X	X	
Smoke Control Systems	X		<u>X, 2</u>
Underground Piping	X	X	X, 5
Detection Systems	X	X	

X = Inspections and Certifications (I &C) are permitted by individuals having these qualifications.

X, N = I &C Permitted if individual has N years related verifiable experience in inspection and installation.

Registered Professional Engineer = Maryland Registered Professional Engineer, having Fire Protection knowledge and experience.

Note 1: Final approval and acceptance of all qualifications shall be subject to the Fire Code Official approval.

Note 2: Individual resumes of experience and education may be submitted to the Fire Code Official for possible consideration in lieu of the above minimum qualifications. Verifiable experience and specialized training in fire protection inspection, design, and installation practices is required.

Note 3: The State of Maryland requires that all Fire Sprinkler Contractors be licensed by the State Fire Marshal.

8. ELECTRICAL SYSTEMS

The purpose of this section is to describe the TPIP responsibilities associated with electrical systems.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Participating Providers

Third-Party Electrical Inspector of Record (EIR)
Approved Third-Party Inspection Agency (ATPIA)

Participating Provider Requirements:

- Obtains an inactive State of Maryland Master Electricians license.
- Obtains State of Maryland certification from the Office of the State Fire Marshal, in accordance with the provisions of Article 38A, Section 62, of the Annotated Code of Maryland.
- The EIR or ATPIA is required to present an established inspection procedure or program reviewed and approved by the Electrical Code Official.
- EIR or ATPIA is required to maintain an adequate amount of liability insurance approved by the County.
- EIR or ATPIA shall have inspection stickers and correction orders in a standard format approved by the Electrical Code Official.
- Will be retained on a list of authorized inspectors based upon performance and adherence to the criteria established herein.
- EIR and ATPIA of Record cannot act in the function of design engineer or professional engineer and perform as an inspection agency. It is assumed that the EIR will field verify the installation of their designed or specified documents. However, this verification is not part of the TPIP process.

Electrical Inspector/Inspection Agency of Record (EIR/ATPIA) Responsibilities:

- Specify and perform inspections necessary during the installation of electrical systems to ensure that the systems are installed in accordance with the County-approved electrical construction documents and electrical permits issued by Prince George's County as listed in Subtitle 9 "Electricity" of the County Code.
- Submit electrical inspection reports on the approved form (Attachment # 4, page 43) to ID, Electrical Code Official for Inspections and the Owner within five (5) working days. Each report shall include the building permit number, building address and the electrical permit number. Correction orders and deficiencies shall be included with each report. All reports shall bear the signature of the EIR or ATPIA providing the report. Final reports are required to be submitted in the format outlined in Attachment #5, page 46.
- Verify that individuals installing and erecting or repairing electrical work, including low voltage and communication systems, are in compliance with the license requirements of Subtitle 2, Division 14B, Prince George's County Code and the Annotated Code Of

Maryland, Business Occupations and Professions Article, Title 6, Code of Maryland Regulations.

- Verify that copies of the building permit and all electrical permits are posted on the project site in accordance with Section 9-112, Subtitle 9, “Electricity”, Prince George’s County Code. A hard copy of the electrical permit is to be provided during the pre-construction meeting between the Owner/Owner’s representative the EIR or ATPIA and the electrical contractor.
- Refer all code-related issues and interpretations to the Chief Electrical Inspector in accordance with Section 9-111, Subtitle 9, Prince George County Code.
- Verify that the service is installed in accordance with the approved plans and is Code compliant for the electric utility to make a connection. The EIR shall submit a report to the Electrical Code Official for Inspections, which will initiate a request for a ID Quality Control Inspection performed by a County commercial electrical inspector. Once the County has approved the installation, the County Inspector will generate a “cut in certificate” to the electrical utility recorded on the County electrical permit.
- Verify that all portable and temporary sources of electrical energy are permitted and are being operated in a safe and Code compliant manner.
- Verifies that an electrical permit has been obtained for all electrical work on the premise.
- Provides an electrical system certification to the AR, Owner, and the County Electrical Code Official for Inspection prior to close in that the electrical systems have been inspected and are ready for the structure or part of the structure to be closed-in.
- Provides an electrical system certification to the AR, Owner, and the County Electrical Code Official for Inspection that specified electrical inspections have been performed and the structure is ready for the Power Company to make the service hot.

9. MECHANICAL SYSTEMS

The purpose of this section is to describe the TPIP responsibilities associated with mechanical systems.

NOTE TO ALL PROFESSIONALS: SEE GENERAL RESPONSIBILITIES SECTION IN THIS ATTACHMENT.

Mechanical Inspector of Record (MIR):

- Performs inspections necessary during the installation of mechanical systems to assure that the systems are installed in accordance with the County-approved mechanical construction documents and Prince George's County Mechanical Code.
- Submits inspection reports, as well as certification indicating that the mechanical systems are ready for the closing-in of the structure, to the County’s PLD.
- Performs a final inspection of the system to assure that all components operate individually and as a system to meet the intent of the Code.

ATTACHMENT #3

SCHEDULE OF THIRD-PARTY INSPECTIONS

The Inspection and Testing Agency shall perform inspections and materials testing as required by the International Building Code (IBC), the County Local Amendments and all other rules and regulations. Samples for required verification and inspection may be obtained from the IBC. The reports must be signed as noted below.

- Structural Inspector of Record: _____
- Mechanical Inspector of Record: _____
- Electrical Inspector of Record: _____
- Fire Protection Inspector of Record: _____
- Inspection and Testing Agency of Record: _____
- Other Testing Laboratories: _____

Note: The Structural Inspector, Mechanical Inspector, Electrical Inspector, Fire Protection Inspector, and any Inspection Testing Agency of Record or other Testing Laboratories are subject to the approval of the Code Official or their designee.

ATTACHMENT #4

ROUTINE INSPECTION REPORT #

Building Permit Number: _____ Date: _____

Other Permit Number(s): _____

Building Address: _____

Address

City, State, Zip Code

Project Name: _____ Company: _____

Inspector: _____ Signature: _____

Discipline: Architect Structural Testing Mechanical Electrical Fire General Fire System
(Circle all that apply)

Inspection/Test:

Type	Location	Result
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Results:

PASSED – the work I inspected meets the Prince George’s County Code and the approved construction documents.

FAILED – the work I inspected does not meet the Prince George’s County Code or the approved construction documents.

Noncompliance Items – Narrative (Required for failed inspection):

ROUTINE INSPECTION REPORTS GUIDELINES

1. Each time an agent of the Third-Party Inspector completes an inspection or test, an Inspection Report shall be filed immediately with QAS and the Contractor.
2. The inspection or testing report shall be signed and sealed by an approved Maryland Professional Engineer as shown on the TPIP agreement.
3. Inspection reports shall be legible. Only typed or printed reports are acceptable unless an alternative is deemed satisfactory. Reports that are not legible will be rejected and the Third-Party Inspection Agency notified that a replacement is required.
4. Type of inspection, as much as practical, should be limited to the following key words: subgrade, concrete placement, backfill, forming, framing, insulation, close-in, system, accessibility, and final.
5. The Contractor shall maintain a log of inspection reports and ensure that it is available to the County, Owner, and third-party agents, on site at all times. This log shall be given to the Owner upon completion of the project unless mutually agreed otherwise. See Attachment #7, page 50.
6. Each report shall be completed in its entirety. Reports left on site may omit the reviewer.
7. The reviewer of the report shall be the signatory of the Third-Party Inspection Agreement.
8. Room numbers, wing, floor, or column line shall reference inspection location when partial inspections are completed.
9. Inspections conducted on the same day, for the same job, by the same inspector may be recorded on one report.
10. Outstanding issues are required to be noted when an inspection fails.
11. The architectural inspector must view the foundation certification prior to issuing an inspection report to allow the erection of the superstructure.
12. The structural inspector must issue a “passing” inspection report prior to the general contractor permitting trade (electrical, mechanical, etc.) work to proceed in that portion of the structure.
13. The architectural inspector must view the “passing” inspection reports for the other disciplines and the superstructure certification prior to issuing their inspection report to allow construction work to be concealed. The architectural inspection report must be on site prior to concealing any building construction.

14. The architectural inspector must view the “passing” final inspection reports for the other disciplines prior to conducting the final inspection. A final inspection report shall be completed prior to requests to the County to issue stocking, temporary, or final occupancies.
15. The narrative section may be used for positive comments and to record inspection information, i.e., observed UFER ground, reviewed reports of others, hydrostatic test conducted, etc. Additional sheets may be attached.
16. Failure to have the requisite inspections may result in the County issuing a stop work and/or assessing special investigation fees until the inspections are brought up to date. Each out-of-date inspection may result in a separate special investigation fee (\$100).

ATTACHMENT #5

FINAL INSPECTIONS REPORT

Building Permit Number: _____ Date: _____

Other Permit Number(s): _____

Building Address: _____

Address

City, State, Zip Code

Project Name: _____

THIRD-PARTY INSPECTOR OF RECORD: _____

The following discrepancies identified in the last Routine Inspections Report dated _____ have been corrected:

(Attach continuation sheet(s) if required to complete the description of corrections)

Inspection reports numbered _____ to _____, and testing reports numbered _____ to _____, submitted prior to this final report form a basis for, and are to be considered an integral part of this final report.

To the best of my information, knowledge and belief, the inspections specified for this project, have been completed. In my professional opinion, the inspections have been found to be in compliance with County-approved documents and project specifications and the Prince George's County Building Code.

Respectfully submitted,

Affix P.E. Seal Below

Signature

Date

Third-Party Inspection of Record - Printed Name

ATTACHMENT #6

PRINCE GEORGE'S COUNTY
THIRD-PARTY INSPECTION PROGRAM
CERTIFICATION FORM

Date _____

- To: Building Code Official
 Fire Code Official
 Electrical Code Official for Inspection

From: _____

Address: _____

Building Case Number: _____

This transmittal is to advise and certify that the following actions are in accordance with the provisions contained within the Prince George's County Department of Permitting, Inspections and Enforcement, Permitting and Licensing Division (PLD), Third-Party Inspection Program (TPIP) and associated Third-Party Inspection Agreement for the above referenced project, as follows:

By the Structural Inspector of Record and/or Architect of Record

- Structural/Architectural Certification that the construction project is built according to approved plans and documents as required by the Prince George's County Building Code
- All structural shop drawings were reviewed and found compliant with the design intent and approved by the County
- Building and Site Accessibility Certification that the construction project is in compliance with the Maryland Accessibility Code and accessibility requirements of the Prince George's County Building Code

By the Geotechnical Inspector of Record

The following were found to be adequate and in compliance with the County-approved plans and accepted engineering practice(s):

- Compaction of soils
- Soil bearing capacity
- Foundation construction
- Field modifications as approved by the County

Test reporting required for valid certification

- Completion and successful performance testing of the fire protection system(s) in accordance with approved plan(s) and document(s) and requirements of the Prince George’s County Building Code (Subtitle 4), Fire Safety Law (Subtitle 11) of the County Ordinance and the State Fire Code, specifically including the following items indicated below:
 - automatic fire suppression system(s) Case # _____
 - fire pump(s) _____
 - fire alarm system(s) _____
 - smoke control system(s) _____
 - detection system(s) _____
 - underground piping _____
 - standpipe system(s) _____
 - other _____

By the Electrical System(s) Inspector of Record

- Construction project is built according to the construction document(s) and electrical permit(s) issued by Prince George’s County and the Electrical Code, as listed in Subtitle 9 of the County Ordinance
- Certification as to the electrical systems readiness for the closing of the structure before the closing begins
- Completion of the electrical system(s) in accordance with the approved plan(s) and document(s) and requirements of the Prince George’s County Building Code, that the electrical system(s) is ready for the power company to make the service “hot,” and all work has been performed under an electrical permit
- Electrical system(s)/installation(s) has valid permit(s)

The above indicated certification(s) is/are made to the best of my knowledge and opinion that all construction has been completed in accordance with the requirements of applicable approved plan(s) and requirements of the Prince George’s County Building Code, as well as State and Local Fire codes.

Certified By: _____

Printed Name: _____

affix signature & seal

MD Reg. No. _____

Company Name: _____

Name of agents/technicians acting on behalf of above:

ATTACHMENT #7

INSPECTION LOG

The inspection log is intended to readily show the stage of inspections and their status. This log is expected to be kept with the contractor and available during normal business hours to Third-Party Inspectors and County Quality Assurance Inspectors. The log shall be maintained in a bound, hard-covered book. The first page of the log shall identify the project and the Third-Party agents, including company name, address and phone number. The remainder of the log shall be for recording inspections. Each inspection shall be on a separate line and clearly indicate what was inspected, who inspected and if the inspection passed or failed. All entries shall be made legibly and in ink.

Example:

Date	Inspector	Type of Inspection	Result
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Logs that contain the minimum information may be arranged differently. Logs may also be used by the contractor to keep other information, including inspection scheduling, partial results, or construction phasing information. The information kept should be related to the Third-Party Inspection Program.

The log and the County-approved construction documents shall be turned over to the Owner upon issuance of the final Use and Occupancy permit. It is recommended that these items be stored in a waterproof canister or container, within three feet (3') of the floor, in the main electric room, fire pump room or other room of fire-rated construction where they will not be disturbed.