

AUDIT IMPLEMENTATION PLAN

AGENCY: New York City Department of Buildings

AUDIT TITLE AND NUMBER: DOB’s Compliance with the High Risk Construction Oversight (HRCO) Study - 7E13-124A

DATE: November 4, 2015

Audit Findings:	Recommendation:	Corrective Action:
<p>1. Weakness in DOB’s management of HRCO recommendations. DOB needs to review the recommendations to be sure the goals are consistent with the recommendations that were presented by CTL in the HRCO Report.</p>	<p>Review the HRCO Report recommendations to ensure they are still pertinent to DOB’s goals and current construction practices and environment. This review should be comprehensive and capture the full content of each recommendation as put forward by CTL in the HRCO Report.</p> <p>Agency Response: The Department agrees with the need for this recommendation. While the Department prioritizes its projects, it has not deviated from its responsibilities to enforce the Construction Codes and the zoning regulations of New York City, thereby ensuring the safe and lawful use of buildings and properties. The Department has launched a team to review and oversee future phases of the HRCO recommendations. This team will work to ensure that the Department’s goals, and those of the HRCO recommendations, are consistent.</p>	<p>The Department has restructured and formalized its project management team to monitor the HRCO recommendations. The team has and continues to review, oversee and monitor the implementation of HRCO recommendations. The enactment of the 2014 Construction Codes includes those elements in the recommendations that the Department continues to believe are necessary. These will be further addressed below.</p> <p>The team has been overseen by senior staff in Enforcement, and now has an Assistant Commissioner of Engineering and Emergency Operations serving as the project leader working with the heads of the involved units as listed below:</p> <ol style="list-style-type: none"> 1. <u>Cranes & Derricks</u>: Executive Director 2. <u>Hoists</u>: Technical Director of Central Inspection Elevator Unit 3. <u>Concrete</u>: Assistant Commissioner of Investigative Engineering Services 4. <u>Excavation</u>: Sr. Exec. Director of Construction Safety <p>Upon further review of the HRCO Report recommendations, the following two recommendations remain not pertinent to the Department’s goals and current construction practices and environment:</p>

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		<p>I. H-03 Riding on Top of Cars – Deemed not practical. DOB has no authority to impose social requirements on citizens; however, we perform outreach and educational safety programs. OSHA is responsible for NY State work practices.</p> <p>II. E-09 Pre-construction On-Site Meetings – this initiative would slow the construction process significantly, and therefore was not implemented.</p> <p>Status: Implemented</p>
<p>2. A failure to put person(s) or group in charge of overseeing implementation of the HRCO Report’s Recommendations. DOB does not have formal tracking of each recommendation. (DOB team, that tracks recommendations, should have technical knowledge to head this endeavor.)</p>	<p>Develop formal tracking and reporting requirements for recommendation implementation.</p> <p>Agency Response: The Department is in agreement with this recommendation, and will develop standardized formal tracking and reporting requirements.</p>	<p>The Department has been documenting, categorizing and tracking the HRCO recommendations since before the 2013 audit. Following the audit, the Department developed a more formal tracking of those recommendations by the project management team.</p> <p>Status: Implemented</p>
<p>3. HRCO Recommendations and implementation functions were not managed effectively. Weakness in DOB’s Internal Controls and oversight of the implementation process for the HRCO Report recommendations, including a single point of responsibility (either a person or a group).</p>	<p>Create a project management team responsible for independently verifying recommendation implementation status as well as performing the tracking and reporting function. Ensure that this team has the necessary technical knowledge to head up the endeavor.</p> <p>Agency Response: The Department agrees with the need for this recommendation. The Department plans to build a formal project management team to monitor the status of the HRCO Report recommendations.</p>	<p>The Department’s project management team, as described above, monitors the status of the HRCO Report recommendations and provides reports to senior staff. Specific items that the agency has implemented, by code or otherwise, are described below in more detail.</p> <p><u>Cranes & Derricks Unit</u> July 2015: Cranes & Derricks unit initiated a four-phase process to manage the recommendations pertinent to its operations. Revising and modernizing Reference Standard 19 (RS-19-2) as well as incorporating it into the</p>

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	<p>On a quarterly basis, this team would provide formal reporting on the status of the HRCO Report Recommendations to the Department’s Deputy Commissioner of Enforcement and Chief of Staff.</p>	<p>agency’s overall regulatory construct is in process. RS-19 is the standard used to regulate the design, construction, permitting, installation, removal, adjustment, repair inspection, maintenance, operation and use of power operated cranes and derricks being used for construction in the City of New York.</p> <p>Crane Erection (Crane Assembly) has been implemented as per Local Law 46/08. This law requires that a safety meeting takes place prior to the erecting, jumping or dismantling of a tower crane. The engineer, rigger, operator and all crew members are required to attend and document the safety meeting. The engineer and riggers are required to discuss all crane technical issues during the safety meeting, and the rigger and engineer are required to address/ resolve all of the technical issues that arise. Additionally, all crew members are required to complete a Department-approved 30-hour training course on how to erect, dismantle and jump the crane.</p> <p><u>Concrete Unit</u></p> <ul style="list-style-type: none"> • Structural Drawing Information is required as per the 2014 Building Code (BC) Sections 107 and 1603 that outline the requirements for Construction documents. Concrete and Enforcement Unit (CEU) engineers ensure all structural drawings are reviewed by the unit and that they meet the BC requirements. • Formwork Design Requirements have been adopted and incorporated in the BC 3305.3.2.1; this section requires site-specific formwork drawings by a

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		<p>registered design professional (NYS Licensed and Registered Professional Engineer or NYC Licensed and Registered Architect). It sets forth the requirements for formwork for each construction site. BC 3305.3.4.5 requires perimeter formwork horizontal members to be positively attached to all formwork supports. Beyond formwork design and installation, BC 3305.3.6.8 requires a signed and sealed re-shoring schedule to be maintained on site when re-shoring is employed. BC 3305.3.2.1 now requires site-specific formwork drawings by a registered design professional (NYS Licensed and Registered Professional Engineer or NYC Licensed and Registered Architect), showing how to construct the formwork for each construction site. This is an improvement in safety and design over generic formwork drawings that were either: (1) not prepared by registered design professional; or (2) did not provide site-specific information which contributed to the confusion regarding how to construct the formwork at the given site.</p> <ul style="list-style-type: none"> • Design Drawings: the Code now requires site specific formwork drawings wherever there are loads imposed on existing structures. BC 3305.3.1.2.1 now requires an evaluation of the existing structure for the loads imposed by a registered design professional. The registered design professional shall prepare design drawings documenting the findings of the evaluation; indicate the location of formwork elements, and the interface between the formwork and the existing structure.

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		<p>This is required whenever vertical or horizontal loads are imposed by concrete construction operations.</p> <ul style="list-style-type: none"> • Monitoring Constructability is implemented. CEU engineers ensure all structural drawings reviewed by the unit meet the minimum requirement set in the Building Code and all associated reference standards. • Reinforcing Placement Quality Assurance is now implemented and is addressed in the agency’s rules, 1 RCNY 101-06 (b) (4) with respect to Special Inspection Agencies and the records they are required to maintain. <p><u>Excavation Unit</u> Minimum drawing standards are implemented.</p> <ul style="list-style-type: none"> • HRCO developed a training manual for Excavation Engineers and a manual tailored specifically for borough plan examiners. Both of these were utilized during training sessions. The Excavation Unit has incorporated the relevant items from these manuals into the Department’s Excavation Engineering Audit Checklist. • Additionally, there is a Support of Excavation (SOE) requirements document (published on our website). Excavation Engineers review SOE (including underpinning) based on referrals from field inspectors.

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		<p><u>Hoist Unit</u></p> <ul style="list-style-type: none"> • PE Sign-off is implemented. DOB has always required a letter from a licensed professional certifying that the building can support the loads imposed by the hoist. If the letter is not submitted, the application is rejected. • As noted in our prior response, a DOB inspection checklist item was established for equipment maintenance log as a result of the HRCO recommendation. Inspectors are required to verify that the contractor maintains an onsite equipment log book as a standardized recordkeeping of all pertinent data. <p>Status: Implemented</p>
<p>4. DOB should formally track and document all meetings, reviews, analyses, etc.</p>	<p>Ensure that all actions (e.g., reviews, analyses, meetings, etc.) are formally and properly documented.</p> <p>Agency Response: The Department is in agreement with this recommendation, and will develop formal tracking, reporting and documentation methods as Recommendation 2 also suggested.</p>	<p>The Department has developed formal tracking of the actions taken in connection with the implementation of HRCO recommendations including maintaining improved meeting minutes and attendance sheets.</p> <p>Status: Implemented</p>

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<p>5. The appropriate files of deliverables, meeting minutes, communications with industry and CTL, training session attendance sheets etc., are not retained.</p>	<p>Maintain appropriate files of deliverables, meeting minutes, communications with industry and CTL, training session attendance sheets, etc.</p> <p>Agency Response: Although the Department produced numerous deliverable files, communications with industry, attendance sheets, etc. we nonetheless agree with this recommendation and will maintain better and more standardized documentation.</p>	<p>This recommendation is no longer applicable as the consultant engagement is over.</p> <p>Status: Implemented</p>
<p>6. Weakness in DOB's oversight of the Implementation Contract it entered into with CTL and with CTL's performance. DOB did not monitor consultant contracts to ensure that all tasks are completed.</p>	<p>Adequately monitor consultant contracts to ensure that all tasks are completed and completed in a way that provides value to the agency.</p> <p>Agency Response: The Department is in partial agreement with this recommendation. Our technical and subject matter experts believe the deliverables received matched the contract terms. We will continue to monitor contracts to ensure that all tasks are completed in accordance with the contract deliverables.</p>	<p>DOB monitors contracts to ensure that all tasks are completed in accordance with the contract deliverables. This is standard practice at the Department.</p> <p>Status: Implemented</p>
<p>7. The work product produced pursuant to the Implementation Contract was for DOB and the property of DOB, however; the audit review found that the excavation deliverables contained language restricting the use of the work product. DOB failed to clearly enforce the terms of its contract and a potential conflict as to ownership may arise, as</p>	<p>Ensure that all contracts specifically specify where consultant's work product is the property of the agency and that this be required in all contracts, except for documented extraordinary circumstances.</p> <p>Agency Response: The contract did include such a specification, specifically stating that all work produced was the property of the City, as follows: <i>"Upon execution of this Agreement, any</i></p>	<p>The Department's Chief Contracting Officer will continue to ensure that all deliverables will be in accordance with the contract specifications.</p> <p>Status: Implemented</p>

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<p>the excavation deliverables clearly state that “They are not provided for general distribution, inclusion in regulatory documents, or as field instruments.”</p>	<p><i>reports, documents, data, photographs and/or other materials produced pursuant to this Agreement, and any and all drafts and/or other preliminary materials in any format related to such items, shall become the exclusive property of the City of New York.</i> The contract further stated, within its Appendix A, which is an Appendix the Department routinely attaches to contracts of this type, that “No report, document of other data produced in whole or in part with contract funds shall be copyrighted by the Contractor nor shall any notice of copyright be registered by the Contractor in connection with any report, document or other data developed for the contract.” The Department does agree that this type of provision is appropriate for this type of contract; accordingly the Department will continue to include this type of provision in such contracts.</p>	
<p>8. Although the CTL contract stated that the work will be conducted on a fixed price basis, there is no documentation justifying or evidencing this selection. Because of these issues, the audit team was unable to assess whether DOB appropriately planned, scoped and negotiated the Implementation Contract.</p>	<p>Ensure that significant actions and decisions connected to establish the scope of the contract, along with their justifications and/or authorizations when required, are formally and properly documented.</p> <p>Agency Response: The Department is in agreement with this recommendation, and will more formally document, as was suggested in Recommendations 4 and 5, all major actions relating to the Department of Buildings’ Compliance with the High Risk Construction Oversight Study.</p>	<p>Justification and authorization for all contracts being developed, based on the Department’s needs, will be formally and properly documented.</p> <p>After further review, the Department believes that a line item fixed price schedule, as needed, will provide more appropriate justification and documentation.</p> <p>Status: Implemented</p>