Final Report of Special Inspections

Project: *Century Tire Warehouse*

Location: *200 Kennebec Street, Portland, ME*

Owner: *Vandelay Industries, LLC*

Owner's Address: *17 South Street, 3rd Floor*
Portland, ME 04101

Architect of Record: *Archetype, P.A.*

Structural Engineer of Record: *Structural Design Consulting, Inc.*
618 Scenic Road, Unit 2
Laconia, NH 03246

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

Special inspections as outline in a Statement of Special Inspections (SSI) dated 04/07/15 were not made during construction. Subsequent to construction, inspections consistent with the SSI were conducted. Post-construction inspections found that the structural framing and details were consistent with the Contract Documents. No condition requiring further inspection is noted.

(Attach continuation sheets if required to complete the description of corrections.)

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector

David J. Tetreault, P.E.
(Type or print name)

David Tetreault
Signature

10/06/17
Date

STATE OF MAINE
DAVID J. TETREAULT
No. 4840
LICENSED
PROFESSIONAL ENGINEER

Licensed Professional Seal

17-1157

October 5, 2017

Northland Management Corporation
Attn: Brad Fries
17 South Street, 3rd Floor
Portland, ME 04101

Subject: Report of Findings
Forensic Materials Testing Services
200 Kennebec Street
Portland, Maine

Brad,

As requested, we made a site visit to 200 Kennebec Street for the purpose of making observations and providing documentation, to the extent possible, on the structural components of the subject building determined critical by the engineer of record, David Tetreault.

PROJECT BACKGROUND

We understand the subject property recently underwent significant renovations including construction of new structural masonry walls and installation of new steel roof framing. We understand a Schedule of Special Inspections was provided by the Design Professional in Responsible Charge (engineer of record), but no field inspections were performed during the construction phase. We understand the engineer of record will review our findings and determine if the construction is in general accordance with project design documuments.

FIELD WORK

Prior to our visit, Northland Development exposed four joist ends in the high roof area to allow visual inspection of the joist seats. Visual observations were also made in the garage area on general joist and deck installation.

To provide insight regarding structural masonry construction, we utilized a ground penetrating radar unit manufactured by GSSI (Structure Scan Mini XT) to scan the exterior face of the masonry walls at multiple random locations.

Observations and findings compiled were compared to the details and requirements contained on available project documents including Archetype Architects drawings S2.2 and S.3.2 dated October 21, 2016 and James McBrady steel shop drawing sheet E1 dated March 21, 2017. We also looked at photographs taken during the construction phase by Northland Management personnel.

FINDINGS

Structural Masonry:

- 8 inch exterior concrete masonry unit load bearing exterior walls was constructed with a running bond pattern and uniform mortar joints
- Vertical reinforcing in areas scanned appeared to extend into the underlying concrete foundation wall consistent with the project requirements
- Vertical reinforcing in areas scanned appeared to be spaced at 4 feet on center consistent with the project requirements
- Horizontal joint reinforcing in areas scanned appeared to be spaced at 16 inches on center consistent with the project requirements
- Reinforced cells in areas scanned appeared to be fully grouted consistent with the project documents
- We are unable to comment on consolidation and compressive strength of grout
- We are unable to comment on construction of bond beam or jams and headers at openings

Structural Steel:

- Steel joist size and layout where observed, appeared consistent with the project documents
- Joist bearing where observed, appeared consistent with the project requirements
- Joist fillet welds where observed, appeared consistent with the project requirements
- Deck side-lap fasteners and puddle welds where observed, appeared consistent with the project requirements

- Bridging observed consisted of four runs perpendicular to the joists along the bottom cord, tack welded at laps and to each joist – we are unable to draw comparisons with the project documents (structural drawings defer to fabricator and fabricator defers to SJI requirements)
- One of the embedded bearing plates observed was apparently installed out of location by several inches and had been added onto during steel erection with an additional plate post anchored into the grout – field fix appeared appropriate, however, we are unable to comment on acceptability from a structural prospective

Observations made during our inspection generally appeared consistent with our understanding of the project requirements based on the information available.

Thank you for allowing us to work with you on this project, if we can be of any further assistance, please feel free to contact either Roger Domingo or Karl Gimpel at our Gray, Maine office.

Sincerely,

S. W. Cole Engineering, Inc.

Karl B. Gimpel
Senior Technician

Roger E. Domingo
Construction Services Manager


POSTED
NO TRESPASSING
KEEP OUT


POSTE
NO TRESPAS
KEEP OU