Pinnacle Engineering, Inc.

May 29, 2017

Dave Kennedy, City Manager
City of Loveland
120 West Loveland Ave
Loveland, OH 45140

RE: Old Loveland Fire Damage (PEI Project No. 17173)

Dear Mr. Kennedy,

Approximately 1PM on May 28, 2017 I received a message from Mr. Randy Merrill of McGill Smith Punshon, Inc. regarding the fire in downtown Loveland. I returned his call and he indicated that he was calling on behalf of the city of Loveland following the multiple alarm fire in the two hundred block of West Loveland Avenue earlier in the day. Mr. Merrill stated that the city desired to have a structural engineer evaluate the stability of the fire damaged buildings and requested that I come immediately to the site. I arrived on site at approximately 1:30PM and met with Mr. Merrill and Loveland-Symmes Fire Chief Mr. Otto Huber. Chief Huber stated that he had been in contact with the three building owners and that all stated that it was important to them to salvage as much of these historic buildings as possible. He had also been in touch with city management and stated that it was the desire of the city to stabilize the buildings for public safety as well as preserving the façades to the extent possible. The scope of work established for my firm was visual observation the buildings, assessment of the structural stability of the buildings, and determination of temporary shoring.

Mr. Merrill, Chief Huber, and I walked the perimeter of the buildings and I also entered the buildings where Chief Huber indicated that fire crews had safely been. A ladder truck was also used to allow observation from above at the west wall. After this initial work it was determined that the most severe structural damage was generally in the roof area of the western two buildings and the second floor area of the westernmost building. Based on observations made I stated that portions of the buildings could be salvaged and that the primary structural concern was the stability of the western façade with the north and south façades being secondary. The north façade poses no immediate hazard to public safety as it is farther from the temporary fencing that has been put in place than the other two façades. It was agreed that in keeping with the city's objectives, the west and south façades should be stabilized since their collapse poses a risk to public safety and they are also the most visible. Because of difficulty in safely shoring the north wall, the lack of risk to public safety, and the lesser visibility of that façade, it was agreed that it would be left as it is.

At this time Mr. Terry Settle of Bryant Hartke Construction arrived on site. He had also been contacted by Mr. Merrill as a potential contractor to perform emergency shoring. After discussing a preliminary shoring scheme using cables, Mr. Settle and I entered the building and made it further into the second floor area at which time we determined the cable scheme would not be feasible due to the inability to get workers into the building and to find adequate tie off points for the cables. A second scheme using shoring towers and bracing was then conceived and agreed to be the best temporary solution.

At approximately 3PM Mr. Merrill left the site and Chief Huber continued to attend to several other matters. Mr. Settle had been in touch with the insurance carrier for the building which contained the Tano restaurant where Chief Huber had indicated the fire started. Mr. Settle said that Mr. Justin White

of RMC Group, a building consultant for the insurance carrier, was on the way and had requested that I remain on site until he arrived. While waiting on Mr. White I was able to gain additional access to other parts of the building for additional observation.

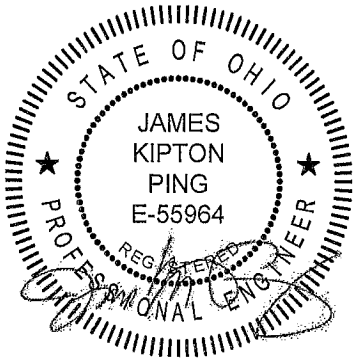
Mr. White arrived at approximately 4PM. He, Mr. Settle, and I toured the building which housed the first floor Tano restaurant and the second floor attorney's office. Mr. White then used his drone to provide additional aerial observation of portions of the building and agreed to forward the pictures and video to me later that day. I left the site at approximately 5PM.

The attached documents provide a layout for temporary shoring. In accordance with the scope of work established at the site, this shoring is temporary and only for the purpose of stabilizing the two main façades of the building. It must be supplemented as necessary prior to any demolition or construction work.

Please note that this letter does not express or imply any warranty of the structure. Observations made were limited to visual observations of representative areas of major structural components to the extent reasonably ascertainable without disturbing the existing conditions. The opinions stated are based solely on these visual observations and my experience as a structural engineer. No physical testing was performed and no calculations have been made to determine the capacity of the existing structure or its compliance with accepted building code requirements.

If you have any questions or need further assistance, please feel free to call me.

Sincerely,
Pinnacle Engineering, Inc.



James Kipton Ping, P.E.
Structural Engineer

GENERAL STRUCTURAL NOTES

SHORING IS FOR TEMPORARY SUPPORT OF WALLS UNTIL A BUILDING PERMIT IS OBTAINED. ADDITIONAL SHORING SHALL BE INSTALLED AS NECESSARY PRIOR TO DEMOLITION OR CONSTRUCTION.

DESIGN LOAD

1. WIND: 50 MPH, EXPOSURE B, IMPORTANCE CATEGORY II

DESIGN CODES

1. OHIO BUILDING CODE, 2011
2. ASCE7, 2005

CONSTRUCTION AND SAFETY

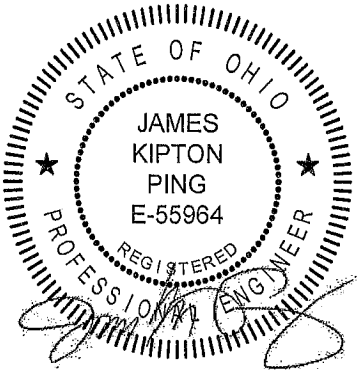
1. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
2. CONTRACTOR WILL BE RESPONSIBLE FOR JOB SITE SAFETY DURING PERFORMANCE OF THE WORK. WHEN ON SITE ENGINEER IS RESPONSIBLE FOR HIS OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
3. IF WORK CANNOT BE PERFORMED AS DESCRIBED HEREIN, NOTIFY ENGINEER IMMEDIATELY FOR FURTHER INSTRUCTION.

MATERIALS

1. SCAFFOLD SHORING TOWERS - MINIMUM 5,000 POUND VERTICAL WORKING LOAD CAPACITY WITH MANUFACTURER'S STANDARD DIAGONAL BRACING AT BOTH SIDES, PERPENDICULAR TO FRAMES.
2. SCAFFOLD BRACES - MINIMUM 1,500 POUND WORKING LOAD CAPACITY
3. THREADED ROD - ASTM A36 OR EQUAL WITH MATCHED STRENGTH NUTS AND WASHERS.
4. 2x DIMENSION LUMBER - NO. 2 SOUTHERN PINE, PRESSURE TREATED

RECOMMENDED SHORING PROCEDURE:

1. INSTALL SIX 5'X7' SCAFFOLD STYLE SHORING TOWERS A-G ON KARL BROWN WAY (SEE SK2) AT WALL FACE AND ADJACENT TO ONE ANOTHER. START AT TOWER G AND WORK TO TOWER A.
2. AS INSTALLATION OF TOWERS PROCEEDS, ANCHOR SHORING TOWERS TO WALL BY SANDWICHING SHORING TOWERS AND WALL AT EACH WINDOW (SEE SK4).
3. BRACE SHORING TOWERS TO GRADE AT EACH TOWER FRAME (SEE SK5).
4. INSTALL FIVE SCAFFOLD STYLE SHORING TOWERS 1-5 ON W. LOVELAND AVE. (SEE SK3) AT WALL FACE AND SPACED AS SHOWN (AT EACH 2nd FLOOR BAY WINDOW AND CENTERED ON WEST THREE DOORS).
5. AS INSTALLATION OF TOWERS PROCEEDS, ANCHOR SHORING TOWERS TO WALL BY SANDWICHING SHORING TOWERS AND WALL AT EACH WINDOW (SEE SK4).
6. BRACE SHORING TOWERS TO GRADE AT EACH TOWER FRAME (SEE SK5).



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www.pinneng.com
Ohio Certificate of Authorization 1331

PROJECT NAME	
Old Loveland Fire	
DATE	PEI PROJECT NUMBER
05-29-2017	17173
DRAFTSMAN/ENGINEER	SHEET NUMBER
JKP	SK1

KARL BROWN WAY LOOKING EAST

NOT TO SCALE (ONLY POSTS NEXT TO WALL ARE SHOWN)

STATE OF OHIO
JAMES KIPTON PING
E-55964
REGISTERED PROFESSIONAL ENGINEER

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W. LOVELAND AVE. LOOKING NORTHWEST

(ONLY POSTS NEXT TO WALL ARE SHOWN)

NOT TO SCALE

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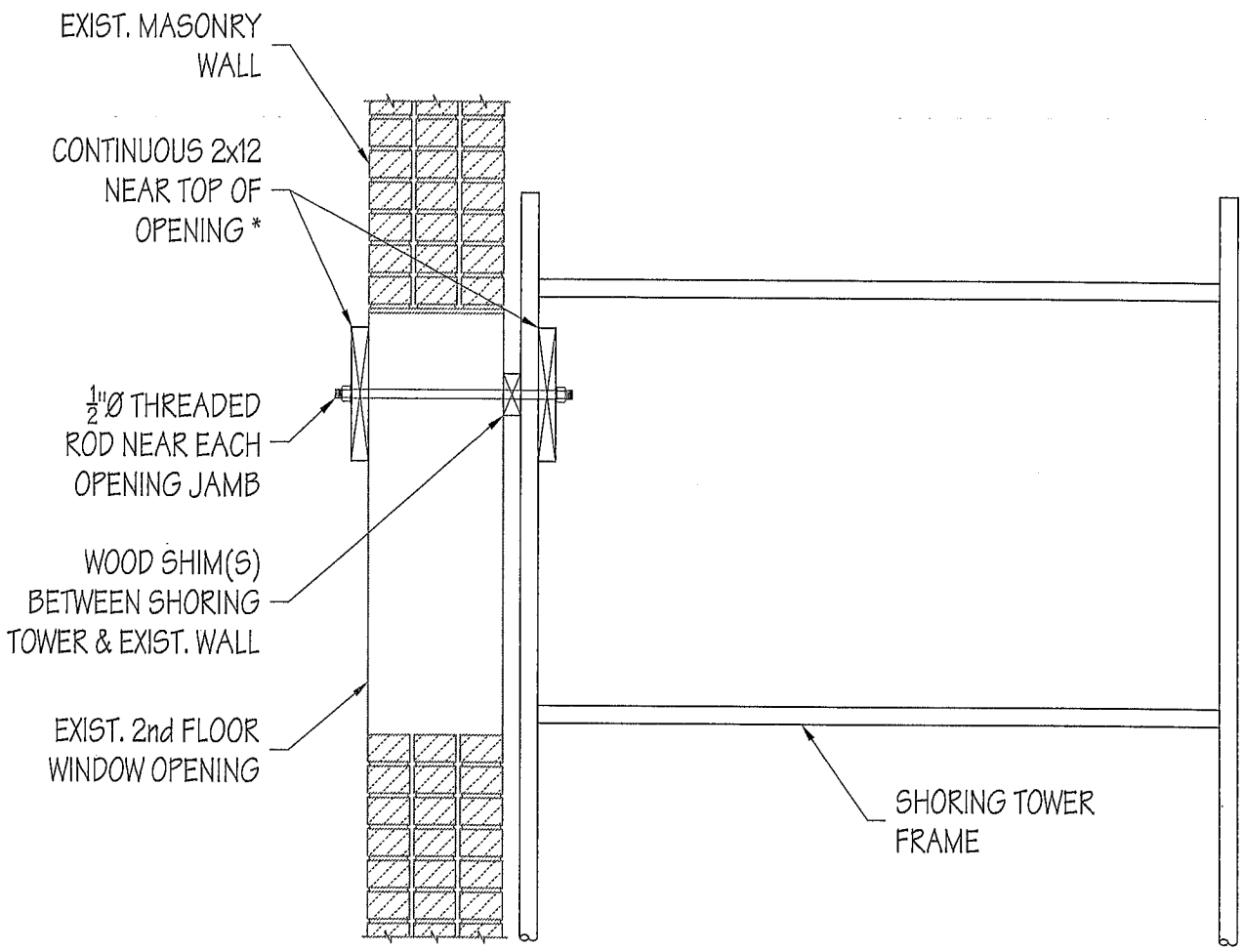

SECTION AT SHORING TOWER CONNECTION

3/4" = 1'-0" (APPROXIMATE)

NOTES:

1. WALL AT 204 W. LOVELAND AVE. IS A WOOD FRAMED WALL - PROVIDE SIMILAR INSTALLATION WITH BLOCKING/SHIMS BACK TO MAIN BLDG. WALL, NOT BAY WALL FRAMING.
2. SPLICE CONTINUOUS 2x12 AS REQUIRED WITH 2x12 (4'-0" LONG) AND SIMPSON SDS25300 (OR EQUAL) @ 12"oc IN THREE ROWS.

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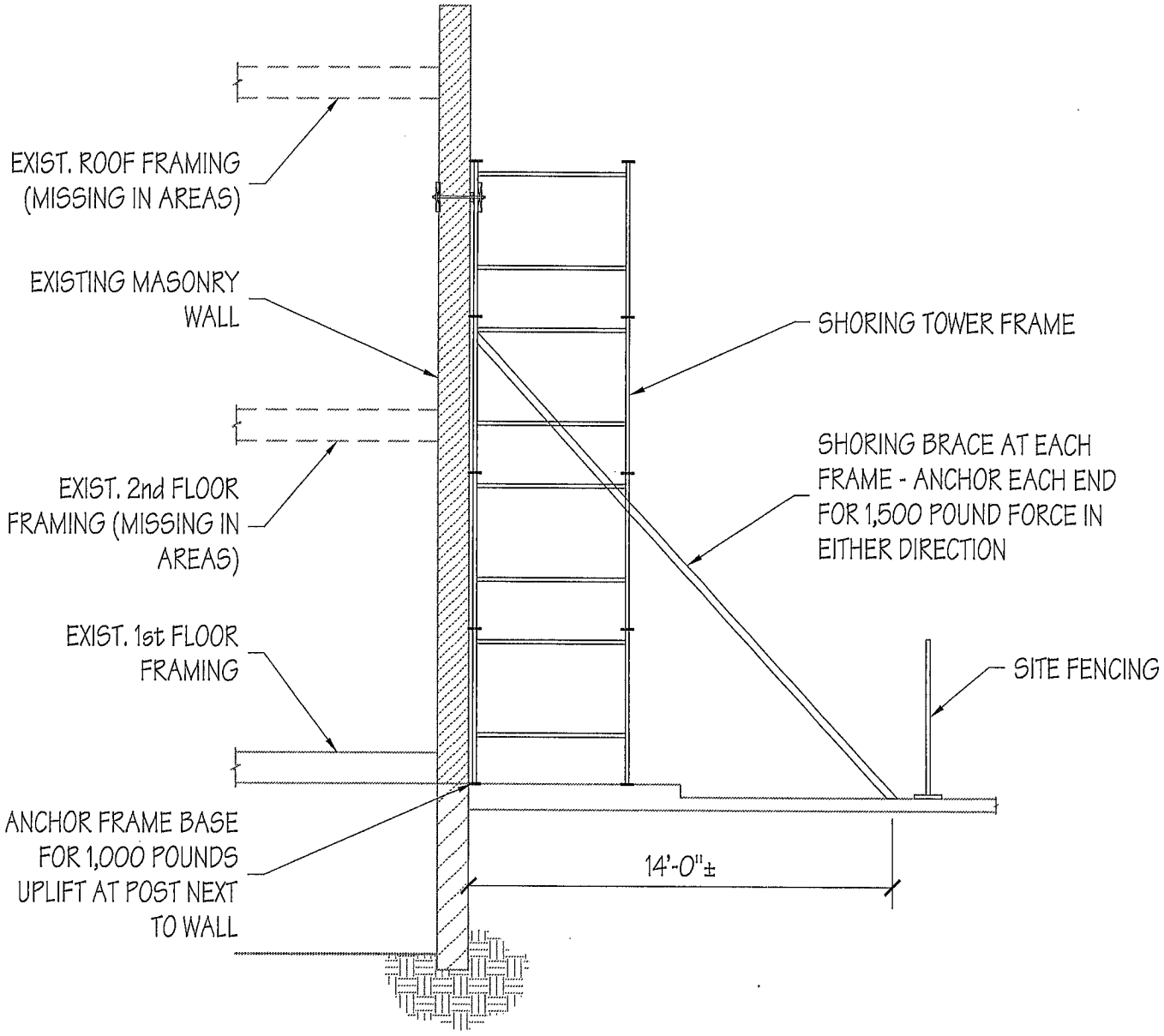

SECTION AT SHORING TOWER BRACING

3/`6" = 1'-0" (APPROXIMATE)

NOTES:

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