

# EXHIBIT A

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF WESTCHESTER

-----X  
SUPERIOR GUNITE,

Plaintiff,

Index No. 54272/2013

-against-

**COMBINED DISCOVERY DEMANDS**

YONKERS CONTRACTING COMPANY, INC.  
and ZURICH AMERICA INSURANCE COMPANY,

Defendants.  
-----X

**PLEASE TAKE NOTICE**, that pursuant to Article 31 of the CPLR, plaintiff, Superior Gunite, by its attorneys, Duane Morris LLP, hereby demands that defendants Yonkers Contracting Company, Inc. and Zurich America Insurance Company produce for the inspection and copying at the offices of Duane Morris LLP, 1540 Broadway, New York, New York on June \_\_, 2013 at 10:00 a.m., or at such other time and place as may be mutually agreed upon by the attorneys for the respective parties hereto, all of the following documents which are within the possession, custody or control of defendants:

**DEFINITIONS**

As used herein, unless the context otherwise requires:

1. "Plaintiff" shall refer to plaintiff Superior Gunite, and all of its officers, directors, employees, partners, agents, or representatives acting within the scope of their actual, implied, or apparent authority.
2. "Yonkers" shall refer to defendant Yonkers Contracting Company, Inc., and all of its officers, directors, employees, partners, agents, or representatives acting within the scope of their actual, implied, or apparent authority.

3. "Zurich" shall refer to defendant Zurich America Insurance Company, and all of its officers, directors, employees, partners, agents, or representatives acting within the scope of their actual, implied, or apparent authority.

4. "Project" shall refer to the Excavating/Mining/Lining of Vertical Shaft, E1, E2 Inclined Tunnels, TI Connector Tunnel, and the Construction of a Ventilation Building and Station Entrance Structure at Site J in New York.

5. "Person" shall refer to an individual, corporation, company, limited liability company, partnership, joint venture, trust, estate, proprietorship, association or other entity or group, whether or not operated for profit.

6. "Payment" shall refer to payments in cash, checks, bills, notes or other instruments, and also shall refer to payments in kind and payments in goods or works or equivalent value.

7. The term "referring or relating to" shall mean mentioning, reviewing, discussing, analyzing, concerning, describing, indicating, responding to, evidencing and/or constituting.

8. The terms "concerning" or "in connection with" shall mean mentioning, reviewing, discussing, analyzing, referring, relating, describing, indicating, responding to, evidencing and/or constituting.

9. The term "communication" shall mean the transmittal of information (in the form of facts, ideas, inquiries or otherwise) verbally or by other means.

10. "Document" is used herein in the broadest sense of the term and means each and every writing of whatever nature, whether an original or a copy, including all documents with handwriting, whether in electronic format or in a paper form, however produced or reproduced and whether sent or received or neither. The term includes, but is not limited to all agreements,

correspondence (letters, facsimiles, e-mails, e-mail attachments, telegrams, and other correspondence and all attachments or enclosures), telephone records, including those for land lines, facsimiles and cellular telephones, evaluations, reports (daily, weekly, monthly), statistical data or studies, notes or summaries of data, minutes or notes of meetings or conversations including telephonic, transcripts of meetings, contracts, sub-contracts, purchase orders, memoranda, resolutions, proposals, photographs, motion pictures, video tapes, audio tapes, recordings, directives, financial information, bank statements, accounts, reports, vouchers, invoices, bills, bill ledgers, notices, notifications, advices, diaries, logs, budgets, estimates, bid proposals, cost and/or income estimates or projections, costs/and or income calculations, acknowledgements, legal papers, complaints, notes, drafts, instruments, applications for payment, requisitions, change orders, extra work authorizations, additional work authorizations, blueprints, designs, plans, drawings, shop drawings, as-built drawings, specifications, details, field orders, field reports, progress schedules, scheduling reports, Critical Path Method ("CPM") schedules, including all updates and reports, bar charts, graphs, cancelled checks, and payment records, evaluations, samples, licenses, permits, applications, telegrams, computer printouts, or other recordings or mechanical reproductions from which information can be obtained, drafts of documents, and copies of documents which are not identical duplicates of the originals, including red-lined or compare copies of documents (e.g., where handwritten notes, addenda, editing marks or marginal comments appear thereon or are attached thereto), any material underlying, supporting, or used in the preparation thereof now or at any time in the possession, custody or control of the DEFENDANTS or available to or known by them. **"Document"** includes data stored electronically and digitized voice-mail in the possession of or under the control of the DEFENDANTS including data maintained or stored in or on (i) data storage

formats (such as CD-ROMS, DVDs, Floppy Diskettes), (ii) laptop computers, (iii) desktop computers, (iv) network servers, (v) archive servers, (vi) back-up tapes and (vii) unified messaging systems.

#### INSTRUCTIONS

11. The document requests set forth below are continuing in nature, and any document obtained or located after the initial production of documents required by this Notice that would have been produced had it been available at that time shall be produced forthwith with a written explanation of the reason for production of such document at the subsequent time.

12. If any document herein requested was formerly in possession, custody or control of the responding party and has been lost or destroyed, the responding party shall submit in lieu of each such document a written statement which: (a) Describes in detail the nature of the document and its contents; (b) Identifies the person who prepared or authorized the document and, if applicable, the person or persons to whom the document was sent; (c) Specifies the date on which the document was prepared or transmitted; and (d) Specifies, if possible, the date on which the document was lost or destroyed, and, the specific circumstances in which it was lost or destroyed and the persons who have personal knowledge of such circumstances.

13. If any document, the production of which is called for by this Notice is not within the possession, custody or control of the responding party, the responding party shall so state in writing under oath setting forth the present location of the document. If the document has been destroyed, then it shall be stated in writing under oath when the document was destroyed, who destroyed the document, how the document was destroyed and a summary of the contents of the destroyed document.

14. If any document responsive to this Notice is withheld pursuant to a claim of privilege, work product or other comparable ground, the responding party shall furnish in writing the following information concerning the document withheld: (a) The reason for withholding the document; (b) A statement of the basis for the claim of privilege, work product or other ground of non-disclosure; and (c) A brief description of the document.

### **DEMAND FOR DOCUMENTS**

PLEASE TAKE NOTICE that, pursuant to CPLR 3120, Superior Gunite hereby demands that defendants furnish the following:

1. All documents evidencing the fully executed Subcontract between Yonkers and Superior Gunite relating to the Project, including all unsigned drafts and prior versions thereof, and all amendments thereto.
2. All requests for change orders and/or extras whether or not agreed to between Superior Gunite and Yonkers concerning the Project.
3. All plans, specifications, drawings, storage agreements and schedules concerning the Project.
4. All requests or applications for payment, including but not limited to, invoices, requisitions and bills, submitted by Superior Gunite in connection with the Project, together with all documents submitted therewith.
5. All documents evidencing payments made by defendants to Superior Gunite, or to any other entity, for work performed or materials furnished by Superior Gunite in furtherance of the Project.
6. All Requests for Information by Superior Gunite to Yonkers or to any other entity concerning the Project.

7. All minutes of meetings held during the Project pertaining to the progress of the Project and any documents referring or related to such meetings.
8. All correspondence between Superior Gunite and defendants relating or referring to the Project.
9. All correspondence between defendants and any other Person relating or referring to the Project, and/or the work performed by or on behalf of Superior Gunite on the Project.
10. All correspondence between defendants and any other Person referring or relating to the Project, any of the events, transactions or alleged damages referenced in the Complaint and Counterclaim, the defenses asserted in this Action, and/or the matters at issue in this Action.
11. All documents relating to Superior Gunite's performance of work on the Project, including but not limited to the work properly performed, the work purportedly defectively performed, purported untimely work and/or purported incomplete work.
12. All documents relating to any inspections, observations, remediation or repair of the work performed by or on behalf of Superior Gunite with respect to the Project.
13. All cost estimates, work sheets, and Project bid analyses prepared by or for Yonkers in connection with the Project.
14. All Project schedules, CPMs, time logs, projections and similar documents developed or utilized by any Party in connection with the Project.
15. All documents concerning work performed at the Project to supplement, replace, restore, correct or complete work performed or required to be performed by Superior Gunite pursuant to the Subcontract.
16. All documents evidencing payments for, or obligations to pay, for any and all supplemental, corrective, replacement or completion work with respect to the work performed or

required to be performed by Superior Gunite pursuant to the Subcontract.

17. All documents relating to notice given by Superior Gunite to defendants, or by the defendants to Superior Gunite, in connection with the Project, including but not limited to notices of default, notices of delay, notices of termination, notices of insufficient, inadequate or defective performance, notices of suspension of work, notices of breach, and/or notices to cure.

18. All documents evidencing purported damages incurred, as alleged in the Counterclaim.

19. All documents reflecting the manner in which the sum of \$1,700,000 was calculated to be owing to defendants as alleged in the Counterclaim, and documents relied upon by defendants in making such calculation.

#### **DEMAND FOR EXPERT WITNESS INFORMATION**

PLEASE TAKE NOTICE that, pursuant to CPLR 3101(d), Superior Gunite hereby demands that Defendants furnish the undersigned with the following information: (a) The names and addresses of each person whom you expect to call as an expert witness at the trial of this Action; (b) The subject matter upon which each expert is expected to testify, together with the substance of the facts and opinions on which each expert is expected to testify; (c) The factual basis upon which each opinion will be based; (d) The qualifications of each expert witness, including educational background and degrees, publications, memberships in professional organization and societies, certifications and licenses, and employment history; (e) A summary of the grounds for each expert's opinion; and (f) The factual information supplied to each expert you expect to call, which was used as a basis of his or her opinion, including all objects examined, the type, the place and date of examination, as well as the description of all



photographs or documents reviewed.

PLEASE TAKE FURTHER NOTICE that this demand is continuing in nature up to and through the time of the trial of this action. Superior Gunitite will move to preclude any expert testimony by any person or with respect to any information not provided as requested above.

### **DEMAND FOR STATEMENTS**

PLEASE TAKE NOTICE that, pursuant to CPLR 3101(e), Superior Gunitite hereby demands that Defendants furnish the following:

(a) All written statements signed or otherwise adopted by the Persons making them, or a stenographic, mechanical, electrical, or other recording, or a transcription thereof, taken of or from Superior Gunitite, Yonkers and Zurich or from any agent, servant, or employee of Superior Gunitite, Yonkers and Zurich or any other party in this Action referring or relating to the Project, any of the events, transactions or alleged damages referenced in the Complaint and Counterclaim, the defenses asserted in this Action, and/or the matters at issue in this Action.

(b) All oral statements referring or relating to the Project, any of the events, transactions or alleged damages referenced in the Complaint and Counterclaim, the defenses asserted in this Action, and/or the matters at issue in this Action, indicating: (a) the date the oral statement was made; (b) the name and description of the Person who made the oral statement; (c) the name and address of the Person who heard the oral statement; and (d) the substance of the oral statement.

**DEMAND FOR NAMES AND ADDRESSES OF WITNESSES**

PLEASE TAKE NOTICE that, pursuant to CPLR 3101, Superior Gunitite hereby demands that Defendants set forth in writing and under oath, the name and address of each person claimed by the defendants to be a witness to any of the occurrences referring or relating to the Project, any of the events, transactions or alleged damages referenced in the Complaint and the Counterclaim, the defenses asserted in this Action, and/or the matters at issue in this Action.

**DEMAND FOR PHOTOGRAPHS AND VIDEOTAPES**

PLEASE TAKE NOTICE that, pursuant to CPLR 3101(i), Superior Gunitite hereby demands that Defendants serve upon the undersigned all films, photographs, video tapes or audio tapes, including transcripts or memoranda thereto, referring or relating to the Project, any of the events, transactions or alleged damages referenced in the Complaint and Counterclaim, the defenses asserted in this Action, and/or the matters at issue in this Action.

Dated: New York, New York  
June 10, 2013

**DUANE MORRIS LLP**  
Attorneys for Plaintiff

By: 

Mark Canizio, Esq.  
1540 Broadway  
New York, NY 10036  
212-692-1000  
MACanizio@duanemorris.com

TO: VENERUSO, CURTO, SCHWARTZ & CURTO, LLP  
Attorneys for Defendants  
35 East Grassy Sprain Road, Suite 400  
Yonkers, New York 10710  
Attn.: Joseph R. Curto, Esq. / Stephen J. Brown, Esq.

**INDEX NUMBER**

**54272/2013**

**SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF WESTCHESTER**

**SUPERIOR GUNITE,**

**Plaintiff,**

**-against-**

**YONKERS CONTRACTING COMPANY, INC. and  
ZURICH AMERICA INSURANCE COMPANY,**

**Defendant.**

**COMBINED DISCOVERY DEMANDS**

**DUANE MORRIS LLP  
1540 Broadway  
New York, New York 10036  
Tel: 212-692-1000  
Fax: 212-692-1020**

**Attorneys for Plaintiff**

# EXHIBIT B

SG ESI 0007264

From: Nick Hacopian <Nick.Hacopian@shotcrete.com>  
Sent: Monday, June 24, 2013 9:50 PM  
To: Frank Townsend <Frank.Townsend@shotcrete.com>  
Subject: Re: C-26510 Site J water leak conditions

Ok buddy

Sent from my iPhone

On Jun 24, 2013, at 6:49 PM, "Frank Townsend"  
<Frank.Townsend@shotcrete.com> wrote:

see you there. i have a meeting at 7 am onsite

Respectfully,  
Frank Townsend

SUPERIOR GUNITE

217 Broadway, Suite 610, NY, NY 10007  
O 818.896.9166 | M 818.391.3009

frank.townsend@shotcrete.com  
<mailto:frank.townsend@shotcrete.com>

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From: Nick Hacopian  
Sent: Monday, June 24, 2013 9:48 PM  
To: Frank Townsend  
Subject: Re: C-26510 Site J water leak conditions

You want me to meet you at the office or on the job site.  
My plane lands at 5:45am I could be at the office at 7:30. If  
not ill meet you at 44st at 8

Sent from my iPhone

On Jun 24, 2013, at 6:45 PM, "Frank Townsend"  
<Frank.Townsend@shotcrete.com> wrote:

trowel                    yes sir. ill be there at 7. meetign with Rob on steel

Respectfully,  
Frank Townsend

SUPERIOR GUNITE

217 Broadway, Suite 610, NY, NY 10007  
O 818.896.9166 | M 818.391.3009

frank.townsend@shotcrete.com  
<mailto:frank.townsend@shotcrete.com>

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From: Nick Hacopian  
Sent: Monday, June 24, 2013 9:42 PM  
To: Frank Townsend  
Subject: Re: C-26510 Site J water leak conditions

I'm going to meet rob after the test panel at 44st  
Are you going to the test panel

Sent from my iPhone

On Jun 24, 2013, at 6:29 PM, "Frank Townsend"  
<Frank.Townsend@shotcrete.com> wrote:

how is this going>

Respectfully,  
Frank Townsend

SUPERIOR GUNITE

SG ESI 0007264

217 Broadway, Suite 610, NY, NY 10007  
O 818.896.9166 | M 818.391.3009

frank.townsend@shotcrete.com  
<mailto:frank.townsend@shotcrete.com>

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From: Robert Stepien  
[rstepien@yonkerscontractingco.com]  
Sent: Tuesday, June 11, 2013 4:28 PM  
To: Frank Townsend  
Cc: Ali Catik; Jim Strobel  
Subject: FW: C-26510 Site J water leak  
conditions

Frank- Please see email below from our  
waterproofer, KJC.

KJC is "finding a large amount of voids in the  
shotcrete" when drilling for packer installation in the E2 incline for  
leak repairs.

This comes on the heels of Skanska finding the  
void in the E2 ceiling.

Please provide your comments and your sounding  
information that you had completed thus far in E2.

Rob

From: Bob Pitiger [mailto:bob@kjcwp.com]  
Sent: Tuesday, June 11, 2013 3:07 PM  
To: Robert Stepien  
Cc: vinny@kjcwp.com; Ali Catik; Jim Strobel;  
Dennis Capolino; slaubshire@allprowps.com  
Subject: Re: C-26510 Site J water leak  
conditions

Rob

Vinny will be onsite tomorrow morning to address the points in your email below. We need to bring to your attention, and to the attention of the MTA that while drilling the E2 tunnel, we are finding a large amount of voids in the shotcrete.

Best regards,

Bob Pitiger

KJC Waterproofing

39 West Quackenbush Ave

Dumont NJ 07628

T 201 384 8859

F 201 384 9661



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# EXHIBIT C

SG ESI 0006287

From: Frank Townsend <Frank.Townsend@shotcrete.com>  
Sent: Thursday, October 24, 2013 6:52 PM  
To: Charles Hanskat <chanskat@HanskatCG.com>  
Subject: Re: Site J follow up meeting

Yes

Respectfully,

Frank Townsend III

On Oct 24, 2013, at 6:48 PM, "Charles Hanskat" <chanskat@HanskatCG.com> wrote:

Frank,

Yes I can be there Monday. We can talk about it when I land.  
Should be on the ground in about 45 min. OK to call then?

Regards,

Charles

From: Frank Townsend [mailto:Frank.Townsend@shotcrete.com]  
Sent: Thursday, October 24, 2013 5:41 PM  
To: Charles Hanskat  
Subject: RE: Site J follow up meeting

Other engineer I am unsure but hired by MTA. MTA hired him,  
NYCT hired SGH. Unsure what SGH is bent on but it is heavy. MTA wants  
this to go away but SGH is finding new holes.

SG ESI 0006287

Main concern is load tests of the plates. 10% were tested and passed. Now that this has come up Skanska has kicked back to the MTA that they need a PE stamp stating what has been put in is ok? All you could do is make a judgment call on what you have seen and encapsulation to date. They need this Monday...I think you being at this meeting could not hurt as you are a wealth of knowledge. Also if you have any documentation that could tie cylinders to cores that would help. Are you available Monday?

From: Charles Hanskat [mailto:chanskat@HanskatCG.com]  
Sent: Thursday, October 24, 2013 6:36 PM  
To: Frank Townsend  
Subject: RE: Site J follow up meeting

Hi Frank,

WiFi on the plane so thought I'd follow-up with an email. Do you have any idea on why SGH has become so resistant to accepting the work? Perhaps striving to increase their fees.

You indicated there is another engineer on board. Is it someone within SGH or a new consulting firm. Did you get any names?

I seem to recall you mentioned there were load tests of the plates. Were those deemed unacceptable?

Regards,

Charles

SG ESI 0006287

From: Frank Townsend [mailto:Frank.Townsend@shotcrete.com]  
Sent: Thursday, October 24, 2013 5:12 PM  
To: Charles Hanskat  
Subject: RE: Site J follow up meeting

Ok, when you land if you can call me, Monday would be preferred if here as this Gumpert has pulled in another engineer

From: Charles Hanskat [mailto:chanskat@HanskatCG.com]  
Sent: Thursday, October 24, 2013 6:10 PM  
To: Frank Townsend  
Subject: RE: Site J follow up meeting

Frank,

I continue to get meeting invites from Mike H. Do they expect me to attend on Monday?

There are correlations of insitu core strength to cylinders, but I'm not aware of any that go the other way. However, cores are the standard shotcrete method so the insitu should be OK. We can use ACI 318 and ASTM provisions to justify it.

We'll need to talk about the plates. I didn't do any on-site review and don't recall having drawings to detail them.

I just boarded a plane now heading back to Chicago so can't get email for a while.

Regards,

Charles

---

Charles Hanskat, PE  
Hanskat Consulting Group, LLC  
2840 Sugar Pine Circle  
Northbrook, IL 60062

Cell + Text - 847.682.3676  
Email - CHanskat@HanskatCG.com

Sent from my phone (so content may be somewhat abbreviated)

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From: Frank Townsend <mailto:Frank.Townsend@shotcrete.com>  
Sent: 10/24/2013 4:57 PM  
To: Charles Hanskat <mailto:chanskat@HanskatCG.com>  
Subject: FW: Site J follow up meeting

Quick recap on where we are:

Larry, I just left a meeting with Michael H, Mike K, the MTA Staff, PB, and Simpson and Gumpert independent Engineers. This was a follow up discussion on structural capacity of the arch at Site J as the independent engineers are uncomfortable in signing off. Mike H is in a pinch as Skanska has Liquidated damages to the tune of \$50k/day, which they are pushing back at the MTA as they are denied access. The MTA alluded that these charges will be forwarded to Yonkers, and Jim Strobel(Yonkers) in turn made a comment to me that we will be a part of that issue. Mike H, MTA, and PB we OK with the wellway as is and willing to sign off on the structural capacity. Mike H asked all parties and S&G said no they are not comfortable. A few things arose from the meeting. First was boxes were not shot by us as per ACI 506 and instead testing was done with cylinders traditional concrete method. This is in violation of the NYC code, it was eluded to that insitu cores are to follow in the near future to satisfy this requirement, location and quantity determined by Simpson and Gumpert. Is there a study correlating strengths of shotcrete cylinders to cores that can be provided so we do not have to core any more of the existing wellway as the parties that matter do not want that to happen. S&G then questioned concrete strength as 6 of 260 cores broke below 5000 psi, the wrong testing performed, and the voids leaves them to think the insitu shotcrete material is well less then 5000. Five previous cores were taken months ago and these were sent to a testing lab today to get strengths to determine what the strength is. Once received the strength will be inputted into a PB program to determine the structural capacity of the wellwall. They believe the capacity will satisfy as a stand-alone structure, if so one other piece is needed. The MTA informed us to hire a PE to stamp the existing load plates in the arch, this to state that the load capacity with all information known will meet the required strength or get the plates load tested. Top and bottom plates are 17k lbs each and middles ones 3k and this is required Monday. I will reach out to Charles on this, maybe reference to the best of his knowledge from what he saw. With this PB calculation and PE stamp the wellwall can be turned over to Skanska who has the fit our contract to continue to work. The PB Calculation will also determine

SG ESI 0006287

what the minimum requirement is regarding strength to determine if the current situation can hold the follow on building to be built on top to start in June 2014. If that is a concern other means will have to be taken to strengthen the existing structure. Next meeting is Monday at noon with Mike H.

Respectfully,

Frank Townsend

SUPERIOR GUNITE

217 Broadway, Suite 610, NY, NY 10007

O 818.896.9166 | M 818.391.3009

frank.townsend@shotcrete.com  
<mailto:frank.townsend@shotcrete.com>

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# EXHIBIT D

# HANSKAT CONSULTING GROUP LLC

2840 Sugar Pine Circle  
Northbrook, IL 60062

Phone or Text: (847) 682-3676  
Email: CHanskat@HanskatCG.com

October 18, 2013

Via Email: Frank.Townsend@Shotcrete.com

Mr. Frank Townsend  
Superior Gunite  
217 Broadway, Suite 610,  
New York, NY 10007

**Subject:** Preliminary Evaluation of Shotcrete Liners  
E1/E2 Escalator Tunnel at Site J  
MTA Capital Construction, New York City, New York

Dear Frank,

You have retained me to provide an evaluation of the structural integrity of the as-built E1 and E2 Escalator Tunnel Shotcrete Liners on the MTA Capital Construction Site "J" project. After meetings with MTA and the General Contractor, Yonkers Contracting Company you have indicated you want me to comment on the following items:

- Potential cause of the large voids
- Probability of future voids
- Effect of voids on corrosion
- Effect of water collecting in any voids
- Structural impact of voids
- Long term durability of the shotcrete

## Site Visit – October 13

On Sunday, October 13, you and David with the MTA accompanied me to the site. Previously, Superior Gunite had opened up seven inspection areas (3' to 4' square in plan dimension) to expose embedded reinforcing bars, and the surrounding shotcrete encasement. There were also several areas where cores had been extracted from the tunnel sections. Other parties visiting the site have documented the specific size and location of the inspection areas.

## Evaluation

Inspection areas on the sides (primarily vertical sections) showed generally good encasement of the reinforcing bars including splice zones where #11 bar splices were spaced together and #7 bars running perpendicular. #11 bars are difficult to fully encase with shotcrete, and tying two #11 bars makes it even more difficult. Superior's nozzlemen did a very good job encasing the bars. In one core hole there was evidence of small void (3/8" to 1/2") shadowing behind the closely spaced bars. Another core showed a large void (3/4" to 7/8"). On the side inspection areas, a few deeper probe holes extended more deeply embedded reinforcement. Shotcrete exposed in the space between the outer and inner layers of reinforcing steel looked solid.

The inspection area at the crown of the tunnel and top of the incline showed the good encasement of the outer mat of reinforcing, once again comprised of #11 and #7 bars. Good encasement was also found behind the steel

plates used to hold the reinforcing in place before shooting. However, a large void was evident starting immediately behind the outer mat of reinforcing, and snaking back through the section. Others have probed the void with a borescope and reported it extends up to three feet through the section, and has a rough diameter of 3". This was a defect introduced while shooting.

Though I was not present during shooting, I do have a theory based on my past experience with a wide variety of shotcrete on how such an atypical void could have been created. Reportedly, the shooting technique was to bench the shotcrete sections building a full depth (designed as 1'-6", but reportedly may be up to 2' thick) as the wall is built up from the sides. This is a standard technique of thick sections. However, at the crown of the arch location where the large void was found, the nozzleman would have needed to bring the two benched areas from either side and from down the slope together, and fill in the area from back of section through to the top surface. This would thus have a "V" shaped gap that would be filled in. Overhead shooting of wet-mix shotcrete while moving on a fixed scaffold is the most difficult work a nozzleman can undertake. He needs to look into the section he is shooting while rebound is falling back on him, while manipulating a heavy rubber hose full of concrete up into the heavily reinforced section over his head, and with material velocity exiting the nozzle is trying to push the nozzle back down. Though, the void discovered is not typical of good shotcrete work, it is understandable how this particular section of the tunnel lining was extremely challenging to shoot.

#### **Preliminary Findings**

The following text addresses each of the topics you've requested:

##### ***Potential cause of the voids***

I've explained my theory on the large and rather long void found at the crown above. Though not representative of good shotcrete placement, it is understandable. The combination of very heavy reinforcement, with a thick section and shooting directly overhead are contributing factors. Looking at the smaller individual voids up to maybe 1" in diameter as seen in the cored holes, these were immediately behind very large #11 bars, often with two bars tied together for a splice, and sometimes with a #7 bar crossing perpendicularly. It is extremely difficult to get shotcrete to flow around the bars as two #11 adjacent bars create a solid barrier to shotcrete flow 2.75" across. Though not impossible to encase, they are difficult, and this configuration increases the likelihood that this voids may be created during shooting.

##### ***Probability of future voids***

There is no reduction in material quality caused by the voids. With the good concrete quality there is no expectation that the in-place shotcrete will be deteriorated by exposure to groundwater or the atmosphere to the point of creating future voids. Based on my theory about the creation of the large, long void at the crown, I expect this is an atypical situation and will not be found routinely in other areas of the tunnel lining. The smaller voids as found in the side walls may occur at other locations in the walls, but would not be expected to be any more frequent or significantly larger in size, as they were created by the difficulty of shooting the very heavily reinforced sections with #11 bar lap splices, and that configuration is consistent in the tunnel walls.

##### ***Effect of water collecting in any voids and potential for corrosion***

An inquiry was put forth that in the future water may seep through the concrete sections and eventually fill any voids that may be in the section, and would that eventually cause corrosion of the bars.

Corrosion of the reinforcing bars needs water and oxygen present to eventually exceed the corrosion threshold of the steel embedded in the alkaline environment of the concrete. We have provided a highly alkaline environment with 760 lbs of cementitious material per cubic yard of the 5,000 psi concrete. Additionally, the voids were not at the surface but embedded behind the outer face of the reinforcing, thus it wouldn't be expected to have spalling or cracking that would allow oxygen to reach the void areas. Though water collecting in voids may initially have a neutral pH, after exposure to the cement-rich concrete for a short period of time the water will become highly alkaline as the free lime in the concrete is leached out into the water. Thus, the voids, even if filled with water, will not affect the long-term durability of the shotcrete section.

#### ***Structural impact of voids***

The Engineer of Record, Parson Brinkerhoff (PB), has conducted a sensitivity analysis that shows from 66% reserve capacity at the crown of the tunnel, 60% at splices, and 20% at the shoulders. Having analyzed, designed and built hundreds of concrete domes, it is clear the arch shape is a very robust structure, and that most of the vertical loads on an arch are conducted by axial forces down to the base of arch. The crown of an arch is the lowest stressed section, and that is confirmed by the PB analysis. Thus, the large, long void at the top is in the lowest stressed portion of the tunnel. This void was reportedly 3" in diameter in an 18" thick section that actually may have been 3" to 6" thicker than designed. Lap lengths to develop the full strength of the bars is 79" per the design. Concrete design compressive strength at 28-days was 5,000 psi, but reportedly the test strengths were higher. Thus, we have lost 3" out of the 18", but have higher compressive strength, and likely a total thickness exceeding the design 18", and have less than half the design maximum load. All these factors taken together show that the large void will not impact the structural integrity of the crown section.

Considering the smaller voids that were found on the side walls, these were reportedly small and localized, and though they may have reduced encasement around a portion of the bar, this was only over a short length, and per the PB analysis still had a 20% reserve capacity. Thus, these voids will also not materially reduce the structural integrity of the shotcrete sections.

#### ***Long term durability of the shotcrete sections***

The long-term durability will not be affected by either the small voids, or the larger void found at the crown since they are embedded deep in the section. The shotcrete material has a significant amount of both slag and silica fume. Both of these supplemental cementitious materials will reduce the permeability of the shotcrete and in turn reduce the advance of carbonation from exposure to the atmosphere. As discussed above, even if the voids eventually fill with groundwater, this will not increase the potential for corrosion. Finally, in excavating the inspection areas the cover over the reinforcing bars was found to exceed the design requirements. This means that the long-term advance of carbonation will have more material to deteriorate before exposing the reinforcing steel, so the section should have better durability.

#### **Summary**

In summary, though the voids uncovered in this investigation are not representative of excellent shotcrete placement, they are understandable given the heavily reinforced sections being shot, and the difficulty of shooting overhead. Since the tunnel arch is a very robust shape, and has significant excess reinforcement capacity the impact of the voids does not reduce the structural integrity of the tunnel lining. Since the shotcrete material is strong, cement-rich, and with SCM's that reduce the shotcrete permeability, the durability of the

exposed surfaces should be equal or better than equivalent cast-in-place concrete. Finally, the additional cover over the design minimums should also help provide enhanced long-term durability against carbonation.

In the interest of time, I have kept this report short and to the point. If you need any further consideration or explanation of my findings, please contact me.

Regards,

A handwritten signature in black ink, reading "Charles S. Hanskat". The signature is fluid and cursive, with the first name "Charles" being the most prominent part.

Charles Hanskat, PE  
Hanskat Consulting Group, LLC  
New York Professional Engineer License #086217-1

# EXHIBIT E

## Anthony Tavormina

---

**From:** Anthony Tavormina <ATavormina@lewismckenna.com>  
**Sent:** Friday, November 22, 2013 7:05 PM  
**To:** 'Canizio, Mark A.'  
**Subject:** Superior v. Yonkers (Site J) - Ron Federico

Mark:

Have you made any progress in getting hold of Ron Federico?

**Anthony J. Tavormina**  
LEWIS & MCKENNA  
82 East Allendale Road  
Saddle River, NJ 07458  
Office: (201) 934-9800  
Mobile: (347) 728-2603  
Fax: (201) 934-8681  
[atavormina@lewismckenna.com](mailto:atavormina@lewismckenna.com)



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## Anthony Tavormina

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**From:** Anthony Tavormina <ATavormina@lewismckenna.com>  
**Sent:** Monday, December 9, 2013 9:45 AM  
**To:** 'Canizio, Mark A.'  
**Subject:** Superior v. Yonkers - Availability of Ron Federico

Mark:

I hope you got all of your cooking done for Thanksgiving. Have you any better idea as to Ron Federico's availability? Please keep me informed on his status.

Best regards,

**Anthony J. Tavormina**  
LEWIS & MCKENNA  
82 East Allendale Road  
Saddle River, NJ 07458  
Office: (201) 934-9800  
Mobile: (347) 728-2603  
Fax: (201) 934-8681  
[atavormina@lewismckenna.com](mailto:atavormina@lewismckenna.com)



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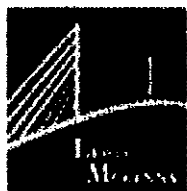
## Anthony Tavormina

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**From:** Anthony Tavormina <ATavormina@lewismckenna.com>  
**Sent:** Monday, January 6, 2014 9:39 AM  
**To:** 'Canizio, Mark A.'  
**Subject:** Superior v. Yonkers - Availability of Ron Federico

Good morning, Mark. Have you been able to contact Ron with regard to his availability for depositions?

**Anthony J. Tavormina**  
LEWIS & MCKENNA  
82 East Allendale Road  
Saddle River, NJ 07458  
Office: (201) 934-9800  
Mobile: (347) 728-2603  
Fax: (201) 934-8681  
[atavormina@lewismckenna.com](mailto:atavormina@lewismckenna.com)



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# EXHIBIT 1

Yonkers Contracting Company, Inc.

Job 0212 Site J

### Meeting Minutes

Meeting Date/Time: 10-7-13 / 9am-11:45am

Location: MTACC Offices 333 West 34 th Street

Site J Meeting: Selective Hydro-Demolition of E2 Incline

Attendees: See attached sheet

On Monday, October 7, 2013 YCC met with representatives from the MTACC, its Engineers, Skanska, Superior Gunite and Rampart Hydro Services to discuss the MTACC's directive to YCC/Superior Gunite to perform selective hydro-demolition to areas of the E2 incline to further investigate the integrity of the shotcrete liner that was installed by YCC's subcontractor, Superior Gunite.

1. Pat Winkler from Rampart Hydro Services was present at the meeting and discussed hydro-demolition and the equipment he would be using to carry out the work. (The MTA's Engineers had contacted Mr. Winkler and had invited him to the meeting). The hydro-demo equipment consists of a 53 ft long support trailer that contains the high pressure water pumps, diesel gen-sets, and fuel tanks that would be parked topside near the E2 access hole. The hydro-demolition robotic machine consists of a 8900 lb unit on wheels(forklift) with a robotic spray arm. The unit discharges 48 gallons of water/minute at 30,000 psi. Each selective demo area could be completed in less than a day.
2. The MTA's Engineers (PB and Simpson,Gumpertz, and Heger (SG&H)) have identified 4 areas of E2 to be hydro-demolished . Two areas @ 9' x 5' and 2 areas @ 4' x 4' will be marked out in E2 by the Engineers as the locations where to hydraulically remove concrete to a depth of approximately 6 inches for the purposes of observing the adherence of the concrete to the rebar.
3. The logistics of the setting up for the hydro-demolition was discussed.
  - a. Robotic machine will be lowered down access hole above E2 by Skanska's crane. It would have to be tied off so it would not roll down the incline slope when operational.
  - b. Power unit (pumps and gen-sets will be parked topside and cables/hoses will run down to unit from access hole.
  - c. The waste concrete slurry will need to be pumped to settling tank topside for proper disposal. The unit pumps 48 gallons/minute so it will generate a lot of water/slurry that would flow into the E2 escalator pit.
4. A discussion then ensued about just chipping the areas out with electric chipping guns so as not have to deal with the messy cleanup and the logistical issues of bringing Rampart's hydro equipment down the access hole and setting up on the incline. Frank Townsend of Superior Gunite stated that a 4 ft by 4ft by 6 inch deep area could be chipped out in one day with 3 men and could start the next day.
5. Mike Kyraciou questioned why such large areas were being removed and how the areas were going to be repaired. Mr. Kyraciou voiced his concerns about NYCT Maintenance of Way (MOW ) accepting large patches in the inclines that can spall out later. PB stated that a repair procedure would be developed.
6. At approximately 10am the meeting attendees proceeded to the site to the E2 incline to look at the work first hand.

7. The meeting resumed at approximately 11 am again at MTA's 333 West 34<sup>th</sup> street office. Larry Totten of Superior Gunite was conferenced into the meeting via telephone at this time.
8. The discussion continued about setting up Rampart's equipment on Skanska's platform and if Skanska's movable platform could withstand the load. Victor Paterno of Skanska stated that the platform would need to be checked by his Engineer for the loads of the hydro demo unit.
9. The MTA Engineers then stated after the field visit that they were revising the demo locations and possibly reducing the number and would forward this information to YCC/Superior Gunite shortly after the meeting.
10. MTA's Engineers then stated that chipping with electric guns was a viable alternative to using the hydro-demolition methods and would permit YCC/Superior Gunite to chip one location and if it produced acceptable results, the remaining three areas could be done this way.
11. YCC asked if the areas could be marked with spray paint after the meeting so as to avoid any confusion in the field when the work begins. The MTA's Engineers agreed at the meeting to do this. (NOTE: THIS MARK OUT WAS NEVER DONE)
12. The Meeting adjourned at approximately 11:45 am. The agreed to plan was for Superior Gunite to begin chipping on 10/8/13 after the MTA's Engineer marks the location using ground penetrating radar or GPR.

NOTE: Further discussion took place after the meeting without YCC, Superior Gunite, and Rampart Hydro-Services. The MTA and its Engineers determined that hydro demolition must be done regardless of the results with the electric chipping guns. See 10/7/13 emails from the MTA.

# EXHIBIT 2

Yonkers Contracting Company, Inc.

Job 0212 Site J

Meeting Minutes

Meeting Date 10-14-13

Location: MTA Headquarters 2 Broadway 8<sup>th</sup> floor

Site J: Structural Integrity of Shotcrete E1/E2 Inclines at Site J

Attendees:

	Dr. Michael Horodniceanu – MTA President
Jim Strobel-YCC	Mike Kyraciou-MTA Chief Engineer (on-phone)
Robert Stepien-YCC	Shawn Kildare-MTA Project Director
Larry Totten-Superior Gunitite	Ramesh Ramanathaiah-MTA Construction Manager
Frank Townsend – Superior Gunitite	PB Engineers
Charles Hanskat-Hanskat Consulting Group LLC (SG's Engr.)	Simpson, Gumperts & Heger Consulting Engineers (SG&H)

On Monday, October 14, 2013 at 2:30 pm YCC and Superior Gunitite met with representatives from the MTA, PB, and SG&H to discuss the findings of the selective demolition and structural investigation that has taken place the prior week at the E2 incline.

1. SG&H states that voids were found in the shotcrete arches at certain sites of the selective demolition areas done the week before. A large 6" diameter by 2 ft long void was found in the crown and smaller golf ball size voids were found in the shoulders of the arch.
2. A lengthy discussion ensued led by Michael H. about the structural integrity of the E2 incline and if the void compromises the integrity in any way. PB and SG&H continue this discussion and ultimately conclude that the void in the crown is not critical since this is an area of little stress and that only one void has been found.
3. The repair of the void is discussed and it is questioned if it is necessary to repair it or not. Charles Hanskat does not feel it is necessary to repair the void. PB disagrees and states that it must be filled with cementitious grout not epoxy (Prime Resin Void Fill 1400) as was used in the past by YCC at Site J. PB is concerned that the PVC membrane will collapse and puncture at large void areas.
4. SG&H and PB have found that in the inspection areas cut in the E2 arch ceiling, the distance between the centerline of upper rebar mat and the inside face of concrete (called "d") was found to be 2 or more inches less than the depth shown on the contract drawings. (RS Note : However the total thickness of the arch was 19 1/2" or 1 1/2" thicker than the contract dimensions). PB will analyze this discrepancy to see its effect on the structural integrity of the arch.)
5. PB and SG&H concluded that cementitious pressure grouting must be done in both E1 and E2 arch ceilings on some drilled in spacing pattern. Superior Gunitite to submit cementitious grouting plan.
6. PB recommends installing 2 grout hoses at each chopped inspection area so that the chopped areas may be secondary grouted with cementitious grout after the shotcrete "patch" is completed. This would fill the void found and fill any voids behind the shotcrete patches.
7. The order of repairs discussed by PB and MTA is as follows:
  1. Cementitious grout ceilings on a pattern.
  2. Shotcrete "patch" inspection areas.
  3. Acrylate behind arch last.
8. The meeting adjourns at approximately 4:30 pm.

# EXHIBIT 3



Yonkers Contracting Company, Inc.

Job 0212 Site J

### Meeting Minutes

Meeting Date 10-24-13

Location: MTA Headquarters 2 Broadway 8<sup>th</sup> floor

Site J: Structural Integrity of Shotcrete E1/E2 Inclines at Site J

Attendees:

	Dr. Michael Horodniceanu – MTA President
Jim Strobel-YCC	Mike Kyraciou-MTA Chief Engineer
Robert Stepien-YCC	Shawn Kildare-MTA Project Director
Larry Totten-Superior Gunite (on-phone)	Ramesh Ramanathaiah-MTA Construction Manager
Frank Townsend – Superior Gunite	PB Engineers
Jenny Engineers	Simpson, Gumperts & Heger Consulting Engineers (SG&H)

On Thursday, October 24, 2013 at 11:30 am YCC and Superior Gunite met with representatives from the MTA, PB, and SG&H to further discuss the findings of the on-going structural investigation that had taken place this week at the E2 incline.

1. Michael H. wants to focus this meeting about the structural integrity of the E1/E2 inclines. He states that there has been a stop work order placed on the inclines for 3 months now and poses the question –“Do we have a structural issue or not?” and that this issue “needs closure”.
2. Mike Kyraciou reads from ACI 506R-90 sections regarding skill of nozzleman, testing procedures, etc. He also goes on to state that “We are here by complaint” meaning the NYCTA has issued the stop work order after receiving a complaint about the work in E1/E2.
3. Mike K. points out that there is greater than 2” of cover on the rebar (we have 4”-5”) which is good for serviceability and durability of the structure in the long term.
4. Mike K. states that the structural investigation has been a thorough one and everything that could be done was done.
5. Mike K. mentions the water test that was completed this morning on the ¾” holes in the E2 arch. YCC states that there was no take of water or that the holes communicated if less than 6” apart.
6. The independent Engineers state that the void that was found in the crown does not compromise the arch structurally.
7. Mike K. concludes that the structure can carry loads as designed.
8. Mike H. asked “Is the structure solid or not and do you agree with Mike K.?” Erdem from PB answers “Yes- with the following conditions: the voids need to be filled and the shotcrete has an in-place compressive strength of 5000 psi as designed.
9. SG&H questions the compressive strength of in-place shotcrete. SG&H states that their field observations indicate that the in-place shotcrete is not 5000 psi material, especially as you get closer to the back face of the concrete against the waterproofing. SG&H says the shotcrete looks more like 2500-3000 psi material at best. Mike K. then retracts his statement that the structure can carry loads as designed based on the statements made by SG&H.
10. MTA asks YCC if compressive strength data from the recent shotcrete cores was received. YCC states that the smaller cores taken this past July/August were sent out to the Tectonic lab this morning and that the results were expected later this afternoon around 6pm.
11. PB states that since the future building loads are 75% of the total load on the arches, the arches are structurally sound at the moment until the future office tower is built. Shawn Kildare also asks that the foundation loads be checked since the present building height has been reduced substantially as to what was originally planned and the structure designed for.

12. A discussion ensues about what compressive tests were done during construction and how they were taken. YCC states that the structural shotcrete was tested by making test cylinders as per the structural concrete specification and not coring test panels. The compressive strength results were then discussed and it was determined that the results were good with very few exceptions of the 200+ cylinders tested.
13. SG&H states that the compressive tests were done incorrectly and that for shotcrete there should have been cores drilled out of core boxes, and not cylinders cast.
14. The MTA asks Larry Totten (Larry was on the ACI 506-R90 Structural Shotcrete committee) about the correlation between cylinders and cores taken out of core boxes and Larry states "that the cylinders are representative of what is in the wall". SG&H disagrees.
15. SG&H goes on to say that 75% of the probes (selective demolition areas in E2) had defects.
16. Mike H. reminds everyone that Skanska is claiming \$50,000/day in delay costs.
17. Mike H. states that the future building has not been built yet and that the stop work order can be lifted since "the structure is not fully loaded". Based on small current loading "Skanska's work can proceed".
18. SG&H and PB discuss what sections of the structural liner can have 2500 psi concrete and what sections need 5000psi concrete. A diagram was drawn by SG&H on a flip chart showing the first 13" of the arch thickness needs 5000psi concrete and that the remaining 5" of the arch thickness (toward the waterproofing) needs 2500psi concrete. The vertical arch walls require 5000psi concrete through the entire thickness.
19. The next meeting is scheduled for 11 am on Monday when compressive core test results can be discussed.
20. The meeting adjourns at approximately 1:30 pm.

# EXHIBIT 4



## Capital Construction

February 19, 2014

MTA-YCC-L-00156

Mr. Robert Stepien  
Yonkers Contracting Company  
511 West 33<sup>rd</sup> Street, 5<sup>th</sup> Floor  
New York, NY 10001

**Subject:** Contract C-26510 (Site J): Excavation/Mining/Lining of Vertical Shaft, E1 and E2 Inclined Tunnels and T1 Connector Tunnel & Construction of a Ventilation Building and Station Entrance Structure

**Re:** Substantial Completion

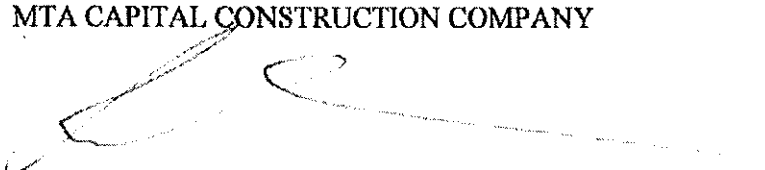
Dear Mr. Stepien:

In reference to your letter YCC-MTA-L-0164, dated February 19, 2014, we concur that you have completed all work under this Contract as described in the contract documents as of February 19, 2014. This declaration of substantial completion does not alter your responsibility to fulfill the contractual requirements.

All punch list items from the pre-final inspection and a list of remaining work has been sent to you earlier in a separate letter. Please notify our office once you complete these items so we can schedule a final inspection.

If you have any questions, feel free to contact me at (646) 252-8330.

Sincerely,  
MTA CAPITAL CONSTRUCTION COMPANY



Ramesh Ramanathaiah  
Construction Manager

cc: S.Kildare, M. Schiffman, M. Rafat, S. Asquith, M. Mahmoud, File

*The agencies of the MTA*

MTA New York City Transit  
MTA Long Island Rail Road

MTA Long Island Bus  
MTA Metro-North Railroad

MTA Bridges and Tunnels  
MTA Capital Construction

MTA Bus Company

# EXHIBIT 5



## **Yonkers Contracting Company, Inc.**

Building Quality for Over 50 Years 969 Midland Avenue Yonkers, NY 10704 Tel 914.965.1500 Fax 914.378.8880

**Via email**

February 25, 2014

Mr. Larry Totten  
Superior Gunite  
940 DooLittle Drive  
San Leandro, CA 94577

Re: Site J – Directive to Superior Gunite to immediately begin repairing leaks at the Site J Project

Dear Mr. Totten,

As per my email directive sent to you earlier today, Superior Gunite is directed to immediately begin repairing the ongoing leaks at the Site J project. The leaks are due to voids in the shotcrete that were created due to inadequate placement of the shotcrete. Leaks are present in the shotcreted perimeter walls, shaft walls, and incline tunnel arch and slab sections that Superior Gunite had installed.

KJC Waterproofing, Inc. who has been working at the site for many months will be stopping with the leak repair work shortly due to the extraordinary amount of chemical grouting materials being used in attempting to stop the leaks. The voids found in the shotcrete lining of the incline tunnels and the suspected voids in the perimeter walls of the project have significantly increased the costs to remediate water leaks at Site J. As was stated at the shotcrete integrity meetings with the MTA back in October, the MTA and its' Engineers firmly believe that the voids in the shotcrete have caused the waterproofing membrane to rupture where it could not span the large voids found in the shotcreted structural elements of the project.

Superior Gunite is hereby directed to take over the remaining leak repair work immediately using an approved and qualified leak repair subcontractor or it may hire KJC's leak repair subcontractor, All Pro Waterproofing Solutions Corp. who is performing the leak repairs now and has performed void repairs previously for Superior Gunite in the E2 incline Arch.

As per previous correspondence, YCC is holding Superior Gunite responsible for the costs to repair these leaks in the shotcreted elements and is currently compiling these charges. If you fail to repair the leaks, YCC will resume the leak repairs and continue to backcharge you accordingly.

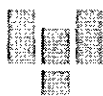
Should you have any questions, please contact me at 914-584-9612.

Very Truly Yours,  
Yonkers Contracting Company, Inc.

James P. Strobel  
VP of Construction NYC/NJ Metro Area

cc: Frank Townsend-Superior Gunite, JK, JS  
LTR to Superior Gunite 00007 file

# EXHIBIT 6



## **Yonkers Contracting Company, Inc.**

Building Quality for Over 50 Years 969 Midland Avenue Yonkers, NY 10704 Tel 914.965.1500 Fax 914.378.8880

via email & mail

February 27, 2014

Mr. Larry Totten  
President  
Superior Gunite  
940 Doolittle Drive  
San Leandro, CA 94577

Re: Site J – Structural Integrity Issues at E1/E2 Inclined Tunnels

Dear Mr. Totten:

The above Project continues to have serious issues with the work performed by Superior Gunite. I thought that at this point, it would be best to somewhat summarize what has gone on the past few months regarding Superior Gunite's work and the mounting damages.

### **1. Voids are Found in Superior's Work**

As you are aware, back on May 6, 2013, Yonkers sent an e-mail notifying Superior Gunite (Superior) that voids were found in the E2 Incline flat ceiling. That same letter stated Yonkers intention to hold Superior responsible for any and all costs associated with any defective work by Superior. This particular void was found by the follow-on contractor, Skanska, while Skanska was drilling the E2 Arch to put in ceiling frame support anchors. From that point onward, things have gotten worse.

Initially, it was thought that the problem was a very isolated one and that some quick grouting would fix things up. This turned out be incorrect. On May 22, 2013, Yonkers wrote Superior requesting Superior's intended grouting procedure and to perform an investigation as to the nature of the voids. In June 2013, Superior hired All Pro Waterproofers, Inc. (All Pro) to grout the E2 areas.

Starting around June 11, 2013, Yonkers' waterproofing subcontractor, KJC, found more voids. Specifically, Yonkers sent an e-mail stating that KJC is "finding a large amount of voids in the shotcrete." The voids were then also found at the E1 Incline. Yonkers sent you an e-mail on June 28, 2013 regarding same. We reinforced that Superior needed to perform a "sounding survey" of both E1 and E2, so that the extent of the problem could be determined. We had previously asked for this to be done, but it was not. This was followed by a letter the same day.

Superior responded on July 3, 2013, stating that Superior had sounded both E1 and E2 and "did not hear anything that would assumed [sic] there were any voids." This did not turn out to be true as many more voids would be found.

### **2. MTA Issues a Stop Work Order**



Next, due to growing concerns the Metropolitan Transit Authority Capital Construction (MTA) sent a letter to Yonkers on July 17, 2013. This letter directed Yonkers to "flood test" the E1 Tunnel. Contrary to its name, the flood test was to introduce water behind the concrete to help determine the extent of the problem. MTA's letter, which was forwarded to Superior, also stated, "Your [Yonkers'] project work will not be accepted until you satisfy the Chief Engineer and Code Compliance regarding the use of shotcrete." The MTA letter also included a "Stop Work Order." This, as I am sure you realize, is a very significant event, as it stopped work from proceeding until these issues could be resolved. This area had already been turned over to Skanska, the follow-on contractor, to perform its work.

The Stop Work Order, which was really issued by the New York City Transit Authority, as opposed to the MTA, withdrew the Temporary Construction Permit for the Project and specifically raised questions as to the work done by Superior and water leakage in the area. It directed that all work at the Project in the area "shall cease immediately." This was followed by a July 24, 2013 letter from MTA seeking to have core drilling done at eight (8) locations in E1 and E2. Yonkers then hired Semcor Equipment to perform this coring work.

Yonkers sent a letter to Superior on August 2, 2013, formally transmitting the Stop Work Order. This letter reiterated much of the above and that it was believed by MTA that the leakage problems in these areas was caused by voids in the shotcrete placed by Superior. The letter directed Superior to "thoroughly investigate the significant leak areas," and to "immediately implement whatever means necessary to perform repairs on the [waterproof] liner as necessary." The letter went on to state, "The MTA is extremely concerned that the quality of [Superior's] work and the leaks may negatively impact Skanska's follow on contract in these areas." It stressed that Superior would be held responsible for any and all damages/costs associated with Superior's defective work.

All Pro then came in again to do some injection grouting, while Yonkers supplied the necessary materials. This work was done in August 2013. On August 28, 2013, Yonkers sent Superior an e-mail regarding a different Superior work area where the concrete had "delaminated." Yonkers told Superior that Yonkers would make the repair and would backcharge Superior.

As more issues arose, MTA became more concerned about the structural integrity of the shotcrete installed by Superior Gunite. Yonkers wrote to Superior on October 3, 2013. This was a follow-up to a Meeting on September 30, 2013, with Superior that discussed MTA's direction that a Professional Engineer be retained to substantiate that the work done by Superior was structurally sufficient. The letter directed Superior to retain such Engineer and emphasized the "utmost urgency as the MTA's Stop Work Order will not be lifted until such certification is provided." The letter also included Non-Destructive Test results prepared by NDT Corporation (NDT). That company was hired by MTA to review the situation in the E1 and E2 Escalator Tunnels. NDT used ground penetrating radar (GPR) but found it not to be effective in identifying the location and size of the voids. The test results showed the "presence of numerous shrinkage cracks, cold joints, occasional cavities (vugs or honey combing) and tight laminations."

There was a high level meeting at MTA's Headquarters on October 7, 2013, that was attended by MTA, MTA's Engineers, Skanska, Superior Gunite, Rampart Hydro Services and Yonkers. MTA directed that hydro-demolition be performed in certain of the areas to further investigate the integrity of Superior's work. Superior was to start chipping out the concrete the following day. This was followed by an e-mail directive from MTA to proceed with demolition. The MTA directive was forwarded the same day, October 7, 2013, to Superior. MTA sent a written Directive the following day, October 8, 2013. Superior

Gunitite began the exploratory concrete removal so the shotcrete could be further inspected by the MTA's Engineers.

The demolition work started and there was another high level meeting on October 14, 2013. The chipping found defects in Superior's work, including one void that was 6 inches in diameter and two foot in length. There were other defects found. What was particularly significant about this meeting was the presence of Dr. Michael Horodniceanu, MTA's President. There was a lengthy discussion of the interplay between the voids in Superior's work and the problems with the water proofing being observed. Dr. Horodniceanu drew a sketch of the interplay. Dr. Horodniceanu and the MTA Engineers stated their firm belief that the voids in the shotcrete have caused the waterproofing membrane to rupture. Their belief is based on the inability of the waterproofing membrane to be able to span voids found in the shotcrete placed by Superior Gunitite.

Another high level meeting took place on October 24, 2013, at MTA's Headquarters. It was obvious at this meeting that MTA was frustrated with not being able to yet bring this matter to a conclusion. MTA stated that "Skanska is claiming \$50,000/day in delay costs related to these issues." It was discussed by the MTA Engineers that there was excess design capacity in the arches and that the shotcrete tunnel liner could remain in place even with the presence of voids. However, this only addressed the structural issues with the shotcrete tunnel liner. It would later be found that even though the structural design capacity of the arches could be achieved with the presence of voids, the watertightness criteria could not be achieved.

### **3. MTA Lifts the Stop Work Order but Leaks Continue**

From the beginning of November, through December, 23, 2013, Superior performed grouting of Inclines. Thereafter, KJC came back in and tried to do waterproofing of the area. Just previous to this, December 10, 2013, MTA sent a letter to Yonkers lifting the Stop Work Order and released the area back to Skanska. But this was and is not the end. In the process, Superior had done some grouting, but the initial grouting was mostly for structural issues. The second part, the continuing leakage due to the voids continued.

By this time, KJC was attempting to fill the shotcrete voids in order to achieve the required water-tightness required in the specifications. KJC continued to try and waterproof the area, but it was believed that due to the voids in the shotcrete, it was not being successful. After a period of time, E1, which had more structural grouting performed than E2, eventually got to a point that it was sufficient that it could be turned over to Skanska to complete the escalator work in that area. But E2 remained to have significant water issues.

On February 21, 2014, Yonkers sent Superior Gunitite an e-mail that Yonkers waterproofing subcontractor, KJC would be stopping any further leak repair as they are pumping way too much chemical grout in the voids. This has been an on-going cost to KJC, without reimbursement or payment by Superior Gunitite. Yonkers directed Superior Gunitite to take over the waterproofing work. This was followed by e-mails on February 24 and 25, 2014. It was stated, "As previously discussed at our meetings at 2 Broadway (MTA's Headquarters) with Superior Gunitite and the MTA, it was concluded that the voids in the shotcrete were caused by inadequate placement of the shotcrete. At these meetings the MTA and its Engineers stated that they believe the structural voids have compromised the waterproofing PVC membrane. They contend that the PVC membrane could not span the large voids in the tunnel liner and the PVC membrane had ruptured in these areas. Once the water pressure forces the water through the ruptured membrane the water then travels through the voids within the

shotcrete and eventually leaks out through the shotcrete tunnel.” The e-mail went on to state that Yonkers would meet with Superior on February 26, 2014 show the areas and need for continuing waterproofing efforts. It closed by immediately directing Superior to being the required leak repair work and with a reminder that time was of the essence.

On February 25, 2014, you stated in an email reply to Yonkers that:

*“We do not believe that the issues regarding the leaks and waterproofing at Site J are related to the Shotcrete placement. As you recall we conducted an extensive explorative and remedial program on the shotcrete last year. To the best of our knowledge this was done to the satisfaction of the owner and their engineers.*

*Waterproofing is not and never has been in our scope of work on the project.*

*We do not intend or plan to assume the responsibility or cost for waterproofing or repairing the leaks on the project.”*

On February 26, 2014, Yonkers and Superior Gunitite met with KJC to review the current leak conditions at the Project. Superior Gunitite told Yonkers that they would go back, talk to others, and would get back to Yonkers. To date, Yonkers has not heard back from Superior Gunitite.

#### **4. Yonkers Damages**

As you are aware, this problem has now been around for quite awhile and is still not remedied. The issues with the defective work of Superior resulted in a Stop Work Order being issued by NYCTA to the follow-on-contractor installing elevators and escalators in the Incline Tunnels. You then participated in and implemented an extensive investigation that included: selective demolition of sections of the shotcrete liner in E2 to serve as an area from which to make inspection probes; the hiring of an Engineer on your behalf, and the later repair of the incline voids by an intensive injection grouting program performed by a specialized grouting subcontractor. While Superior’s efforts to repair the voids found in the structural shotcrete lining of both inclines resulted in the Stop Work Order finally being lifted, unfortunately, it has not meant the end as problems in achieving water tightness, particularly in E2.

During this extended period of time, Yonkers has experienced significant costs for which Yonkers holds Superior fully responsible. There are costs accrued by Yonkers and others that are directly attributable to the structural investigation and later repair work that Superior Gunitite performed on the E1/E2 Inclines. Charges include but are not limited to the following:

1. Yonkers Supervision costs, Coring Subcontractor costs, Independent Testing Laboratory and Field Inspection costs, and miscellaneous equipment and supplies costs.
2. Skanska costs for assisting in the investigation and repair of the E1/E2 Inclines - including field labor, crane and operators, and E2 rolling platform moves, etc.
3. Potential Liquidated Damage Charges from the MTA.
4. Potential Backcharges from MTA related to Skanska’s inability to proceed or sought by MTA related to MTA’s efforts to determine the scope and magnitude of Superior’s void issue.
5. Continuing Waterproofing Costs (discussed further below).

All the above charges are not fully known at this time and will be compiled and forwarded to Superior Gunite at such time when Yonkers is in receipt of them.


As mentioned above, it has become apparent that the voids in the shotcrete lining in the inclines and the suspected voids in the perimeter shotcrete walls on the Project have contributed to the water infiltration on the Project. This has dramatically increased the costs to remediate water leaks at Site J. As discussed in detail at the meetings held in Dr. H's office, the MTA and its Engineers firmly believe that the structural voids left by Superior have compromised the PVC waterproofing membrane. They contend that the PVC waterproofing membrane could not span the large voids present in the tunnel liner and that the PVC membrane had ruptured in these areas.

As a result, there is the need for large volumes of chemical polyurethane grout and acrylate grout that have been and still are being pumped in the perimeter shotcrete walls and tunnel shotcrete lining. Yonkers believes that voids persist not only in the shotcrete tunnel liner, but in the perimeter shotcrete walls as well.

Therefore, Yonkers is seeking reimbursement of the costs incurred by Yonkers and its subcontractor, KJC, to remediate leaks in the shotcrete elements at the Site J Project. Again, these costs are not fully known at this time since leak remediation still continues. More specifically, Yonkers will be seeking reimbursement from Superior for the following costs when fully known:

1. Yonkers Support Costs of waterproofing subcontractor, KJC Waterproofing, Inc. throughout all prior and on-going leak remediation efforts at Site J related to the shotcrete elements on the Project. The ongoing problem also could lead to issues with regard to KJC or even Yonkers ability to meet the Project requirements for water tightness, guarantee and to furnish a Bond regarding same, which, in and of itself, would be by Yonkers estimates, \$2,000,000 in warranty, guarantee and bond costs.
2. Yonkers and KJC Waterproofing, Inc. attorney fees and settlement costs due to prior leak remediation of shotcrete elements at Site J.
3. Yonkers/KJC ongoing costs for leak repair materials and support costs to remediate leaks in shotcrete elements at Site J.

As stated above, Yonkers, its subcontractors and other parties have accrued costs as a result of the structural investigation and subsequent repair of the E1/E2 inclines. These charges will be forwarded to Superior Gunite as they become known. Yonkers is also holding Superior Gunite responsible for the prior leak and current leak remediation costs attributable to the shotcrete structural elements on the project since these leaks are the result of persistent voids evident throughout the Site J shotcreted structural elements. These charges too will be forwarded to Superior Gunite as they are compiled and become fully known to Yonkers.

Very Truly Yours,  
Yonkers Contracting Company, Inc.  
  
James P. Strobel  
VP of Construction

cc: JK, RS  
LTR to Superior Gunite 00008 file

# EXHIBIT 7

# SUPERIOR GUNITE

- GUNITE CONSTRUCTION
- ENGINEERING CONSTRUCTION

12306 VAN NUYS BOULEVARD  
LAKEVIEW TERRACE, CALIFORNIA 91342  
(818) 896-9199 • (323) 877-4861  
FAX: (818) 896-6699



**Yonkers Contracting Company  
969 Midland Avenue  
Yonkers, New York 10704**

**March 12, 2014**

**Attention: James Strobel**

**Subject: Site J Waterproofing/Leaks**

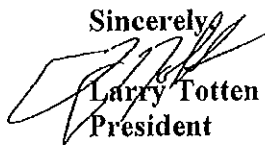
**Dear Mr. Strobel,**

As stated in my earlier advice to you, waterproofing and leak remediation are not in the scope of our subcontract with Yonkers for this project. We will not proceed to take over any repairs to the waterproofing or repair the leaks in this structure per your direction or bear the cost thereof.

There is no evidence to suggest, nor have we received any documentation from the Engineers or the MTA that confirms or even suggests shotcrete caused damage to the waterproofing membrane.

Superior Gunite does not intend to assume the responsibility for the cost of repairing the leaks on this project that are the responsibility of others.

Sincerely,

  
**Larry Totten  
President  
Superior Gunite**