CITY OF SAN ANTONIO
DEVELOPMENT SERVICES DEPARTMENT
P.O.BOX 839966 I SAN ANTONIO TEXAS 78283-3966

ACCREDITED Building Department

TO: Development Services Customers

SUBJECT: **INFORMATION BULLETIN 176**
Plumbing Installation & Inspections / Repairs Within Tunneling Below Foundations

DATE: January 11, 2012/ *Revised August 1, 2014/ May 20, 2016/July 1, 2016 / August 1, 2018/ October 1, 2018*

CREATED BY: Field Services Division

Purpose:

As a customer initiative, the Development Services Department (DSD) created this revised Information Bulletin (IB) to update and clarify IB 176 regarding procedures for inspecting under-slab plumbing installations/repairs that may require tunneling below the foundation to accomplish plumbing drain line repairs, replacements or re-routes. This information bulletin was revised to update contact information.

This IB is to inform our customers that in addition to notifying the City of San Antonio DSD plumbing inspector for inspection of the plumbing work, they need to secure the services of a qualified design professional to evaluate the structural condition of the foundation. (See attached form letter) Exhibit A or C

Exception: *A qualified design professional is not required to evaluate the structural condition of the foundation when;*

- *The tunnel excavation does not exceed five feet beyond the exterior foundation beam and*
- *The tunnel excavation does not cross an interior foundation beam and*
- *The vapor retarder is still in place and*
- *The exterior foundation beam has not been damaged because of the excavation, plumbing repair, plumbing replacement, etc.*

Scope:

Tunnel Inspection Procedure
DSD provides two options to clear plumbing inspections for installation/repairs beneath residential and commercial existing slabs and buildings.

- Option A: Engineer Letter for Plumbing Repairs

  An Engineers letter will be accepted for code compliance regarding inspections of under-slab plumbing installation/repairs. (See attached form letter.) Exhibit B or C

  The letter will need to address the following.

  - Proper grading of the repairs
  - Proper material and fittings
  - Proper connections at the points of all connections
  - Proper support of all drain lines

- Option B: Onsite City Plumbing Inspector

  DSD Plumbing Inspectors will not enter tunneling below the foundation for any inspections. Plumbing companies shall provide a fiber optic style camera, adequate two-way communication equipment, and adequate staffing for the safety of their employees in order for the onsite city plumbing inspection to take place. Plumbing companies shall provide their staff with current approved OSHA training and follow current OSHA safety regulation guidelines.
  General Requirements

1) The tunnel and entry to the tunnel shall be of adequate size to allow the plumber or qualified design professional to perform thorough and safe inspection(s)/review of the work.
2) The plumbing company will provide adequate, trained staff during the plumbing inspection in case of any emergency.
3) The tunnel will provide adequate lighting for the plumber and design professional.
4) Provide proper ventilation in the tunnel for the plumber and design professional.
5) A connection for electrical equipment requires ground fault circuit protection.

Structural Integrity of the Foundation and Construction Review:

Tunnel excavations under a structural foundation may adversely affect the structural integrity of the foundation; therefore DSD requires the customer hire a qualified design professional to evaluate the structural condition of the foundation / floor slab above the area excavated and the condition of the surrounding soils while the tunnel is excavated below the foundation and after the excavation is properly backfilled.

The customer shall hire a qualified design professional to review the other construction work, e.g. replaced vapor retarder directly below the concrete floor slab and the soil type and compaction / placement of the soil within the excavation. The customer shall submit to the City of San Antonio DSD a letter prepared by the design professional indicating that the construction work other than the plumbing was performed satisfactorily. The customer also has been provided a second option to submit an Engineer letter for the installation/repairs made to the plumbing system in lieu of an onsite City Plumbing inspection. The design professional shall prepare his letters from the standard accepted form letter from the City of San Antonio DSD. The design professional's letter/report shall be submitted to DSD before closing the Plumbing permit. Please email the letter/report to DSDCommercialLetters@sanantonio.gov .

Should you have any questions or concerns regarding this information Bulletin please feel free to contact the Plumbing Inspections Supervisor at (210) 207-8279 or Building Inspections Supervisor at (210) 207-0148.

Summary:

This Information Bulletin is for informational purposes only.

Prepared by: Joe Jones, Building Inspections Supervisor

Reviewed by: Michael Constantino, Development Services Administrator

Authorized by: Amin Tohmaz, PE, CBO, Assistant Director

Exhibit A

(Engineer's or Engineering Company's Letterhead)

(Date)

(Client Name)
(Client Firm Name)
(Client Address)
(Client Address)

Project: (Project Name)
(Project Address)
San Antonio, Texas 782____

Property Legal Description: (Legal Description from Bexar Appraisal District, Property Survey, Deed, etc.)

City of San Antonio Building Permit A/P Number: _____

Dear (Client):

As an engineer licensed in the State of Texas, I have personally or with the assistance of qualified individual(s) under my supervision assessed the structural condition of the foundation / floor slab above the area excavated to repair / replace the plumbing. We have prepared construction documents / guidance indicating our design / recommendations to fill the excavated area below the foundation.

The existing foundation for the _____ story building located at the above referenced address consists of a *(description, e.g. concrete floor slab directly supported on the soils below , or stiffened concrete floor slab supported on the soils below)* resisting gravity loads.

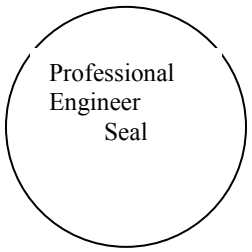
In my opinion, based on visits to the site and my experience, knowledge, information and belief, the structural condition of the foundation above the excavated area while the tunnel was excavated below the foundation was structurally adequate to span above the excavation and sustain the prescribed gravity loads of the 2018 Edition of the International Building Code. In addition, the condition of the replaced fill within the excavated area and the foundation above the excavated area should remain structurally adequate.

We performed field observation(s) according to generally accepted contractual guidelines as described in AIA Document C-401-2007.

As denoted by my engineering seal on this letter, I believe that I have fulfilled my obligations as an engineer under the Texas Engineering Practice Act pursuant to its requirements to protect the public health, safety and welfare in the practice of engineering. I further believe that I have met those requirements insofar as my responsibility for my observation for code compliance of the stated work is concerned.

If you have any questions, please call.

Respectfully,
(Structural Engineer Company Name)



(Structural Engineer Signature)
(Structural Engineer Typed Name)
Texas Professional Engineer License Number 000000

Exhibit B

(Engineer's or Engineering Company's Letterhead)

(Date)

(Client Name)
(Client Firm Name)
(Client Address)
(Client Address)

Project: (Project Name)
(Project Address)
San Antonio, Texas 782____

Property Legal Description: (Legal Description from Bexar Appraisal District, Property Survey, Deed, etc.)

City of San Antonio Building Permit A/P Number: _____

Dear (Client):

I *(Professional Engineer)* visited the site to inspect and confirm the plumbing repairs/replacement inspection for code compliance. In my opinion, based on my experience, knowledge, information and belief, the stated repairs/replacement that I observed is in code compliance and conformance.

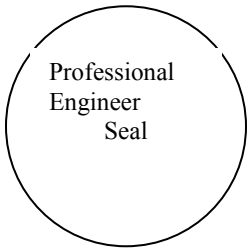
I *(Professional Engineer)* performed the field observation inspection to verify code compliance in accordance to the ***2018 International Plumbing Code and Local Amendments***.

The structural condition of the foundation / floor slab above the area excavated to repair / replace the plumbing was not affected and complies with the exception. The tunnel excavation does not exceed five feet beyond the exterior foundation beam and does not cross an interior foundation beam, the vapor retarder is still in place and the exterior foundation beam has not been damaged because of the excavation, plumbing repair, plumbing replacement, etc. A qualified design professional to evaluate the structural condition of the foundation is not required.

As denoted by my engineering seal on this letter, I believe that I have fulfilled my obligations as an engineer under the Texas Engineering Practice Act pursuant to its requirements to protect the public health, safety and welfare in the practice of engineering. I further believe that I have met those requirements insofar as my responsibility for my observation for code compliance of the stated work is concerned.

If you have any questions, please call.

Respectfully,
(Engineer Company Name)



(Engineer Signature)
(Engineer Typed Name)
Texas Professional Engineer License Number 000000

Exhibit C

(Engineer's or Engineering Company's Letterhead)

(Date)

(Client Name)
(Client Firm Name)
(Client Address)
(Client Address)

Project: (Project Name)
(Project Address)
San Antonio, Texas 782____

Property Legal Description: (Legal Description from Bexar Appraisal District, Property Survey, Deed, etc.)

City of San Antonio Building Permit A/P Number: _____

Dear (Client):

As an engineer licensed in the State of Texas, I have personally or with the assistance of qualified individual(s) under my supervision assessed the structural condition of the foundation / floor slab above the area excavated to repair / replace the plumbing. We have prepared construction documents / guidance indicating our design / recommendations to fill the excavated area below the foundation.

The existing foundation for the _____ story building located at the above referenced address consists of a *(description, e.g. concrete floor slab directly supported on the soils below , or stiffened concrete floor slab supported on the soils below)* resisting gravity loads.

In my opinion, based on visits to the site and my experience, knowledge, information and belief, the structural condition of the foundation above the excavated area while the tunnel was excavated below the foundation was structurally adequate to span above the excavation and sustain the prescribed gravity loads of the 2018 Edition of the International Building Code. In addition, the condition of the replaced fill within the excavated area and the foundation above the excavated area should remain structurally adequate.

We performed field observation(s) according to generally accepted contractual guidelines as described in AIA Document C-401-2007.

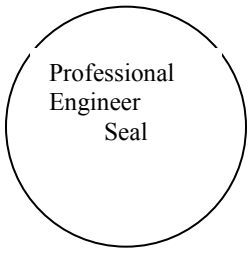
I *(Professional Engineer)* visited the site to inspect and confirm the plumbing repairs/replacement inspection for code compliance. In my opinion, based on my experience, knowledge, information and belief, the stated repairs/replacement that I observed is in code compliance and conformance.

I *(Professional Engineer)* performed the field observation to verify code compliance in accordance to the ***2018International Plumbing Code and Local Amendments***.

As denoted by my engineering seal on this letter, I believe that I have fulfilled my obligations as an engineer under the Texas Engineering Practice Act pursuant to its requirements to protect the public health, safety and welfare in the practice of engineering. I further believe that I have met those requirements insofar as my responsibility for my observation for code compliance of the stated work is concerned.

If you have any questions, please call.

Respectfully,
(Engineer Company Name)



(Engineer Signature)
(Engineer Typed Name)
Texas Professional Engineer License Number 000000