W E T H E R H O L T A N D A S S O C I A T E S , I N C .

LEAK INVESTIGATION REPORT

Tacoma Rhodes Center
Broadway Building – West Elevation Wall
Tacoma, Washington

Department of General Administration.
P.O. Box 41011
Olympia, Washington 98504-1011

Attn: Jack McGuire

Job No. 0807-10B
June 24, 2009

2633A Parkmont Lane Southwest, Suite A-1 • 1001 Cooper Point Road SW, Suite 140 – PMB 185
Olympia, Washington 98502
Phone: 360-786-1660 • Fax: 360-786-1696

W E T H E R H O L T A N D A S S O C I A T E S , I N C .

June 24, 2009
Job #0807-10B

Department of General Administration
P.O. Box 41011
Olympia, Washington 98504-1011

Phone # 360-902-0978
Fax # 360-753-7960

Attn: Jack Maguire

E-mail: jmaguir@ga.wa.gov

Ref: Leak Investigation - Broadway Building
Tacoma Rhodes Center
949 Market Street
Tacoma, Washington

Greetings,

At the request of Jack Maguire, we conducted a leak investigation of the west elevation exterior wall on the Tacoma Rhodes Center, Broadway Building. This work was conducted primarily during the week of June 15, 2009.

The scope of the investigation included the following: Conditions and details of the leakage were reviewed on-site with facility personnel including Jim King, Director of Security and others. Visual observation and test cuts were taken on the roof, stucco cladding, and concrete sidewalk to determine the condition and configuration of cladding/waterproofing materials. Water testing was conducted to confirm locations contributing to the leakage. Photos were taken to include in this report.

Access to the building was coordinated through Building Security. A swing stage was utilized to access the west elevation wall.

It appears that several conditions contribute to the noted leaks. These include damage and cracks in the west elevation stucco wall cladding, missing or improperly configured window flashing, missing or improperly configured transition flashing at sky bridge roof-to-wall juncture, and missing or improperly configured flashing at sidewalk to wall juncture. In order to address these issues, the wall cladding, sidewalk, and waterproofing will need to be removed and replaced with properly designed cladding/waterproofing materials. However, other short-term repairs that may help mitigate leakage are also discussed in the recommendations section below.

Items of Understanding:

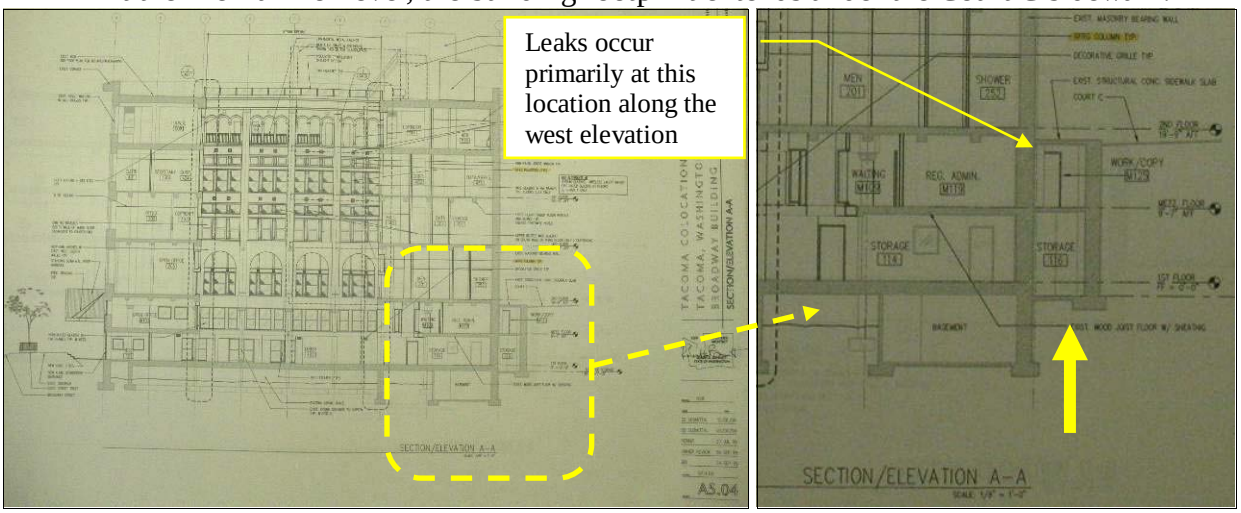
During on-site review with facility personnel including Jim King, Security Director, we understand the following items:

- Leakage inside the building occurs primarily on the Mezzanine Level in the storage halls and copy room areas. Leaks are located along interior (east) wall of these rooms.
- Leaks also occur at the sky bridge ceiling at the juncture with the Broadway Building.
- Leakage occurs during periods of precipitation.
- Leakage has grown worse over the past few years.
- At a location under the west elevation roof plumbing pipe, intense leakage has occurred in the past.
    - However, the pipe was scoped and plumbing repairs were done that addressed most (but not all) of the leakage in this location. Plumbing repairs included installation of a fiberglass sleeve patch inside the pipe.
    - The pipe is configured with two (2) 45-degree elbows routed to avoid a steel beam under the west elevation wall. The lower of the two elbows is not accessible from the interior and had an open joint that was leaking.
    - The pipe drains to the street under the surface of the sidewalk.
- Minor leakage occurs at the west elevation windows during heavy wind and rain events.
- During heavy rain events, the amount of water flowing on the surface of Court C street can cover as much as half the street.

The State of Washington General Administration website notes that the building was renovated by a previous owner (the University of Puget Sound) in 1980. The website further indicates that the state completed a comprehensive renovation on the Broadway Building in 2001.

Architectural plans for a renovation dated 1999 were provided by Mr. King. The following items were noted from review of these plans:

- At the Mezzanine Level, the building footprint extends under the Court C sidewalk.



The Mezzanine and First Floor Levels extend under the Court C sidewalk at the west perimeter.

- Leakage into the building is primarily located directly under the west elevation wall.
- Plans for a major remodel of the building were completed in September 1999. However, the existing stucco cladding on the west elevation was installed prior to this time.
- During the 2001 renovation, the west elevation exterior wall appears to have been modified in the following ways:
    - Some existing windows were eliminated. New framing and stucco cladding was installed in these locations.
    - New windows were installed in several other locations.
    - An entrance to the building was moved to the south and became the L & I Department entrance.
    - A new wheelchair accessible ramp was placed over the existing stucco clad wall to provide ADA access to the L & I and Stair B entrances.
    - The existing exterior entrance to Stair B was modified.
- At the south end of the building, 2001 renovation work appears to have included installation of brick veneer over the existing structural brick exterior.

West Elevation Wall Observations and Discussion:

Locations of water damage were reviewed with Mr. King at the Mezzanine Level. Plastic sheeting has been placed in several locations within ceiling and walls to catch leaking water and direct it to buckets that need to be periodically emptied.

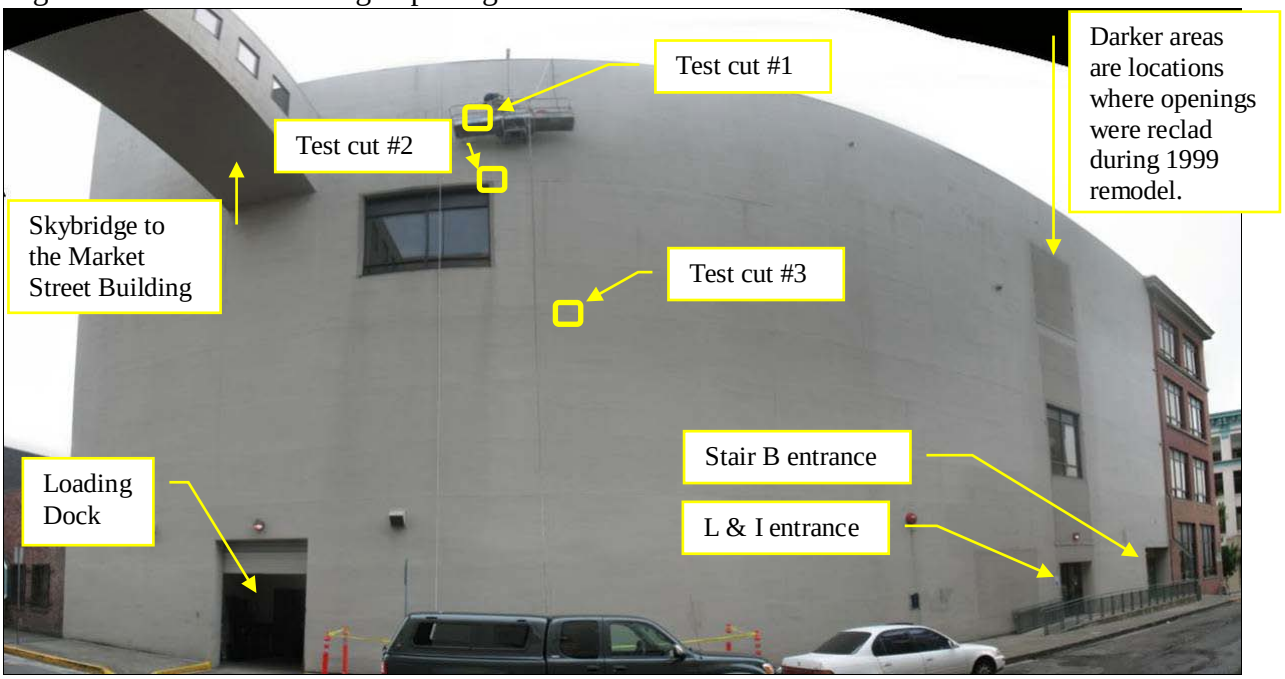
The west elevation cladding assembly includes mostly stucco cladding with brick at the south end of the west elevation. The original structural brick is exposed at Levels 3 through 5 and it appears that newer brick veneer was installed at Level 2 during the 2001 remodel.

At areas of the brick veneer, no weeps were noted to provide drainage of the space behind the veneer. The adjacent concrete sidewalks appear to have been placed over the face of the brick veneer at the bottom of the wall.

West elevation from the southwest.

Cracks, holes, damage, and unsealed joints in the stucco cladding were observed sporadically across the entire west elevation area. It appears that items that were previously mounted to the wall with penetrating fasteners were removed and the holes were not repaired. Cracks and other conditions associated with long-term weathering were observed that are allowing water penetration behind the stucco.

Test cuts were taken on the west elevation exterior wall in three (3) locations. Stucco cladding was installed directly over the original structural brick wall. It appears that many of the original window openings in the structural brick were framed in and eliminated at that time. Where windows were eliminated, steel stud framed wall with batt insulation, 5/8-inch gypsum sheathing, and asphalt saturated building paper was installed prior to installation of the stucco. The building paper does not tie-into the adjacent wall assembly and simply terminates at the edge of the old window rough opening.



Broadway Building west elevation exterior wall and approximate location of test cuts.

Since the is a lack of a continuous weather resistive barrier (WRB) behind the stucco cladding, water that penetrates cracks and joints in the stucco can migrate down the wall behind the stucco until it either emerges at the interior of the building as leaks or returns through cracks/joints back to the exterior. Evidence of water migration out of cracks is visible where water stains can be seen on the exterior wall (arrows indicate examples in the photo to the right).

During certain wind/rain events, the positive pressure on the west elevation wall may create enough air/water migration to the interior to create the leaking noted by Mr. King at windows. However, without the wind pressure driving the water into the building, water that penetrates the stucco is likely to migrate down the wall until it either reaches the juncture with the sidewalk where it penetrates the building or it exits through another crack in the stucco.

Court C Sidewalk Observations and Discussion:

A test cut was done on the concrete sidewalk in order to determine presence and configuration of waterproofing at the juncture with the stucco cladding. The test cut was located adjacent to the south jamb of the loading dock rollup door. The test cut exposed an approximately 4 x 8-inch area of the waterproofing at the juncture with the wall. The topping slab is approximately 9-inches deep at this location.

At this location, an asphalt based waterproofing is installed between the structural concrete and the concrete topping slab (sidewalk). There appears to be a rubberized flashing membrane installed on the top of the waterproofing at the juncture with the wall.

The stucco wall cladding extends continuously down the wall below the top of the sidewalk and appears to terminate within ½-inch of the structural concrete lid (over the Mezzanine Level interior space). The waterproofing was applied onto the outside face of the stucco and up approximately 4-inches.

It appears that no protection course was installed over the waterproofing. Steel mesh visible in the test cut appears to have been laid on the waterproofing prior to placement of concrete and damage to the waterproofing at the juncture with the stucco cladding appears probable.

A water test was done at the location of the sidewalk test cut. Water colored with flourescein dye was poured into the test cut. Leakage to the interior was confirmed at a location roughly below this point within ~½-hour.

Since the waterproofing was applied to the outside of the stucco cladding, water migrating within or behind the stucco cladding is forced to the interior of the building just above the location of the noted leaks. It was also confirmed that water penetrates the tie-in between the waterproofing and stucco cladding at the location of the sidewalk test cut. Water penetrating the joint between sidewalk and wall and penetrating joints in the concrete sidewalk, is likely to contribute to leakage.

Proper integration of waterproofing and wall cladding would normally include the following: A direct tie-in between the waterproofing and the WRB behind the wall cladding should be created. The wall cladding should terminate above the concrete topping slab. A provision for drainage of migrating water behind the cladding should be created. A protection layer between the waterproofing and the concrete topping slab is strongly recommended in order to prevent damage to the waterproofing and provide a slippage plane.

Two (2) further water tests were done at other locations at the base of the west elevation wall. A hose was utilized to spray water for approximately 30-minutes at the base of the southwest corner of the building where damage to the brick veneer is visible at the base of the corner. Water colored with flourescein dye was also poured into an open joint in the stucco cladding at the base of the wall approximately 20-feet north of the L & I entrance. No results were noted at the end of the tests. However, it should be noted that the Mezzanine Level finished ceiling and walls below these areas are interior gypsum. This may prevent observation of leakage for periods longer than the test conducted during this investigation.

Roof Observations and Discussion:

A test cut was done of the roof assembly adjacent to the west perimeter parapet wall. The purpose of the test cut was to determine whether leaking at the roof might be contributing to water penetration at the west elevation wall. From the test cut and visual observation, it does not appear that the roof assembly is contributing to leaks in the building.

The roof assembly consists of a built-up roof membrane over lightweight insulating concrete. It appears that a spray-applied asphalt based emulsion coating has been applied in some areas.

A Delmhorst meter was used to measure relative moisture in a small section of the lightweight concrete that was removed from the test cut. The initial reading was ~26% on the wood scale. After several hours of exposure to dry outside air, the readings decreased to ~16% on the wood scale. This suggests that the lightweight concrete is holding some moisture. However, tactile observations indicate that the structural integrity of the lightweight concrete remains intact.

Water testing was done on the roof drains in order to identify the location of a roof drain that leads to the Court C outlet pipe. The purpose of the drain testing was to identify the location of a roof drain that leads to the street level Court C outlet pipe and allow a flood test of reported plumbing repairs done at that location.

It was determined that the northwest primary drain leads to the Court C street level outlet pipe. A plug was placed in the outlet of the pipe at the sidewalk curb and water was sprayed into the northwest primary roof drain. No leakage was noted at the area below the roof plumbing pipe after approximately 45-minute test duration. This suggests that leakage in the area of the roof drain plumbing is a result of issues related to the wall cladding and sidewalk waterproofing.

During water testing of the roof drains, the following was discovered at the southwest drain: The overflow drain at this location is routed to the primary drain outlet at street level on 11th Street (at the south perimeter of the building). The primary drain is routed to an outlet emerging above the Fifth Floor west elevation wall (typical location for an overflow drain outlet). At that location, a small gutter and 2-inch downspout direct water to the Court C sidewalk. This condition suggests that the overflow and primary drain rings were swapped and this condition probably initiated installation of the gutter and downspout.

An evaluation of the roof is beyond the scope of this work. However, given the previously noted conditions and others observed at the roof, the owner should consider having an evaluation of the roof assembly completed in order to provide recommendations for repairs and an estimate of remaining serviceable roof life.

At the Fifth Floor, west elevation of the Broadway Building, a sky bridge connects to the Market Street Building. The sky bridge roof slopes toward the Broadway Building where a drain is located approximately 18-inches away from the wall. There is no opposing slope to provide drainage from the wall to the drain and evidence of standing water is visible. It appears that water builds up against the rising wall and evidence of leakage into the stucco cladding is visible down the wall from these points.

Mr. King indicated that leaks occur inside the sky bridge under this rising wall juncture. In order to address leakage at the sky bridge roof-to-wall juncture, the roof assembly should be modified to provide positive slope from the wall to the drain. Additionally, the configuration of the roof flashing should be modified to raise the level of the flashing minimum 8-inches above finished roof surface integrated in weather-lapped fashion with the wall cladding assembly.

During this investigation, Pioneer Masonry Restoration Company, Inc. was retained to provide swing stage access to the west elevation and to conduct test cuts and repairs to the stucco cladding assembly.

Clements General Construction Inc. was retained to conduct the test cut and repair to the concrete sidewalk adjacent to the west elevation loading dock.

Clements Construction also addressed the sealant work at the Court C sidewalk as a part of repairs to areas of destructive testing during the leak investigation. At the juncture of sidewalk and wall, the existing sealant was removed and new sealant was installed. The fractured and missing section of concrete curb near the southwest corner was also repaired.

Recommendations:

In order to address the noted leaks and provide long-term building envelope performance, the following recommendations should be considered:

1) The existing stucco cladding assembly, concrete sidewalk, and waterproofing should be replaced.
2) A new wall cladding assembly should be installed. Sheet metal cladding or thin-brick façade may be considered. The following should be considered during design of the new wall assembly:
   a) A continuous weather resistive barrier should be installed on the exterior wall. The type of WRB will be determined by the type of wall cladding chosen to replace the stucco.
   b) Drainage weeps should be designed and installed in the system.
   c) The brick veneer at the south end of the wall may require some modifications to provide proper drainage of the cavity behind the veneer. A new through-wall flashing may need to be installed.
3) New waterproofing should be installed at the sidewalk that is properly integrated with the adjacent WRB and wall cladding assemblies. The following should be considered during design/installation of the new assembly:
   a) Installation of a protection course and drainage layer is recommended.
   b) The downslope termination of the waterproofing and integration with the below-grade waterproofing will need to be determined once existing conditions are confirmed.
   c) New concrete sidewalk/ADA ramps will need to be removed and replaced to allow access.
4) At the juncture of the sky bridge roof with the rising wall, the following should be considered:
   a) The roof drainage should be modified to provide positive slope to the drain and prevent standing water against the wall.
   b) At the roof-to-wall juncture, the wall cladding and roof flashing should be modified to allow for additional flashing height and weather-lapped integration of the two assemblies.
   c) Transition flashing should be installed that integrates the sheet metal roof perimeter flashing into the adjacent wall assembly in weather-tight fashion.
5) At the south end brick veneer cladding, the following should be considered:
   a) Brick veneer may need to be removed at the bottom of the wall in order to install a through-wall flashing that allows drainage of the cavity or joint behind the veneer.
   b) New waterproofing on the adjacent sidewalk will need to be tied-in to the wall behind the brick veneer. However, conditions exposed after removal of concrete and brick will determine the configuration of this detail.

If temporary repairs are desired, the owner should consider the following recommendations to provide preliminary mitigation of leakage:

a) Repair cracks, holes, and damage to the stucco cladding.
b) Address sky bridge roof-to-wall juncture as indicated in #4 above.
c) Remove existing sealant at joints in the wall. Install new sealant joints with appropriate primer, backer rod, and joint configuration.
d) Install new coating over stucco cladding to prevent penetration of water into the assembly.
e) It should be noted that sealant was replaced at the Court C sidewalk to wall juncture as a part of the repairs to areas of destructive testing during this leak investigation.

These temporary repairs may mitigate the amount of leakage into the building. However, it should be noted that due to the condition of cladding/waterproofing materials at the sidewalk-to-wall juncture, some amount of leakage is inevitable until long-term remediation can be done.

Included are photos of observations taken during the site visit for your review with this report.

Respectfully,

Shane West, RRO
Field Engineer

Reviewed by,

William Cypher, RRC, FRCI
Senior Field Engineer

Please note that this leak investigation is provided at the request of Jack McGuire, whom we understand represents the owner. No liability, warranty of merchantability, or guarantee of roof or building service life is accepted or implied. Wetherholt and Associates, Inc. is a neutral waterproofing/cladding/roofing consulting firm specializing in resolving building and roof related issues.

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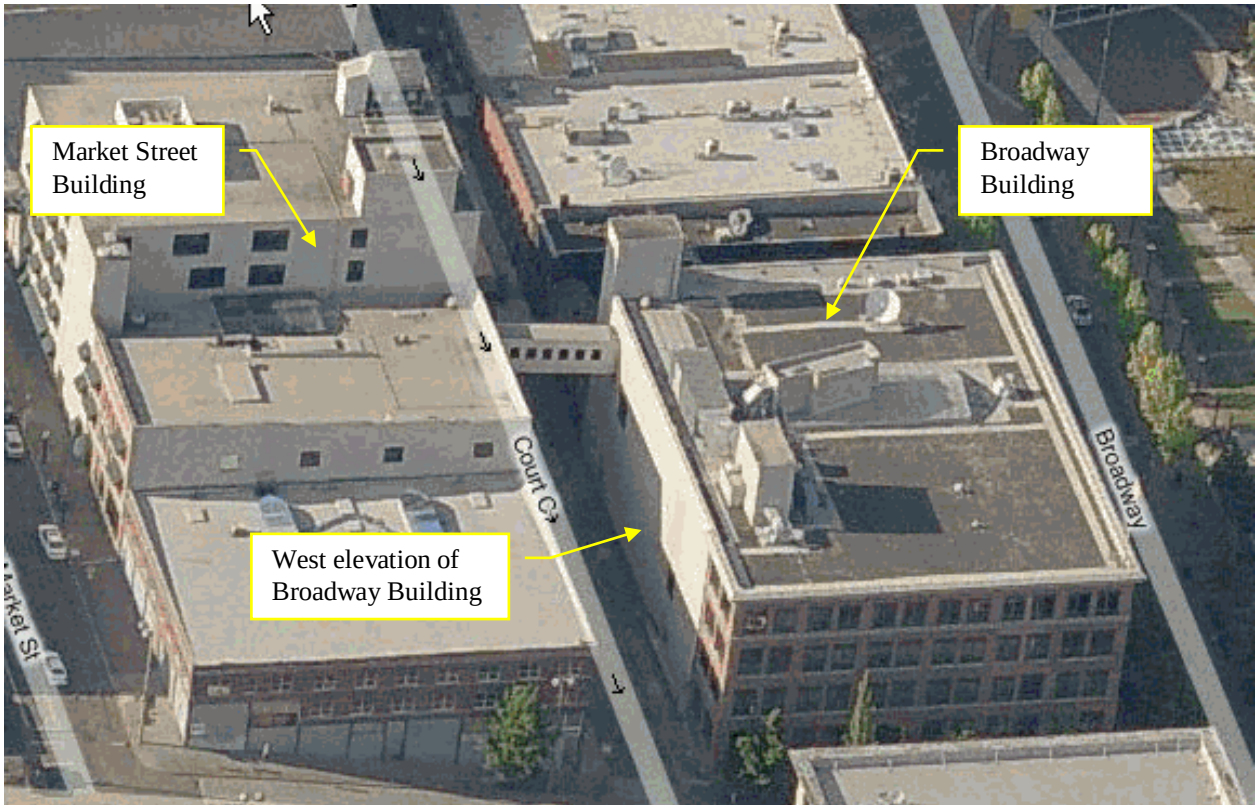
Photographs:



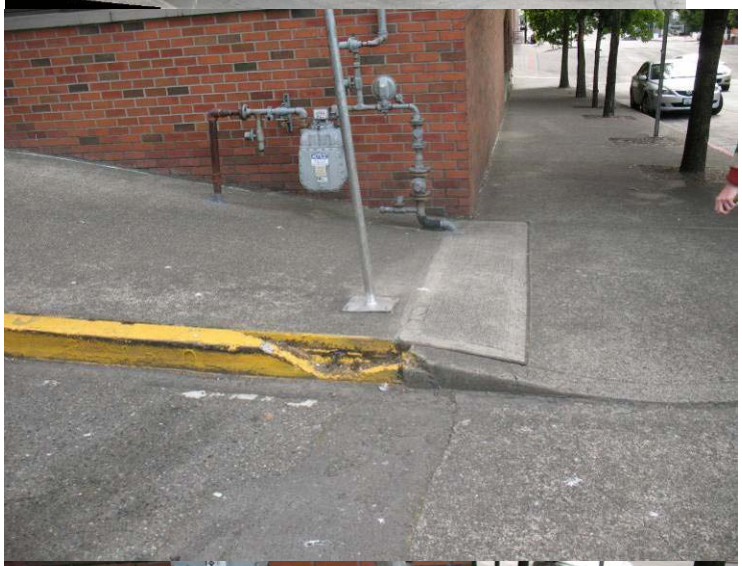
Photograph # 1. Overview of the Tacoma Rhodes Center from the south.

Photograph # 2.

Panorama overview of the Broadway Building west elevation from across the Court C alley.

Photograph # 3.

Panorama overview of the Broadway Building west elevation from across the intersection of Court C and South 11th Street. The southwest corner of the building is visible.

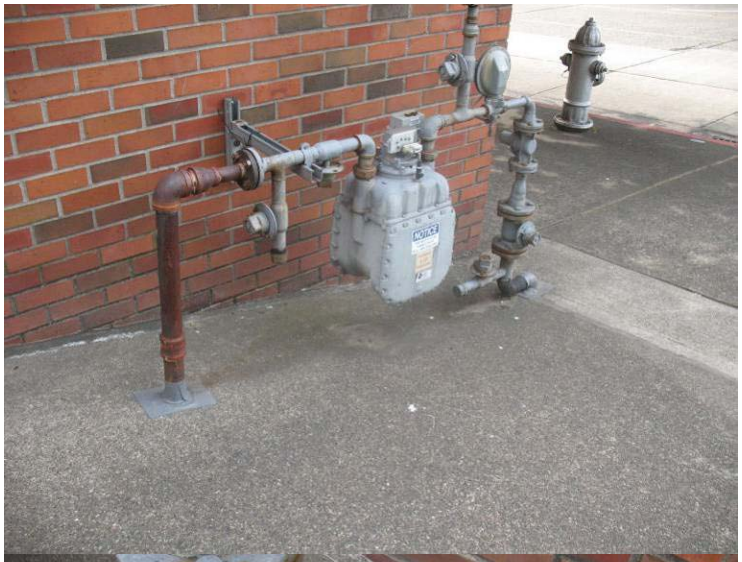


Photograph # 4.

Context view of the Court C sidewalk adjacent to the southwest corner of the building.

Photograph # 5.

Close-up of damage to the concrete curb at the Court C sidewalk adjacent to the southwest corner of the building. A knife was inserted at what appeared to be the exposed termination of the waterproofing below the concrete sidewalk. This area is located approximately over the southwest corner of the Mezzanine Level of the building.

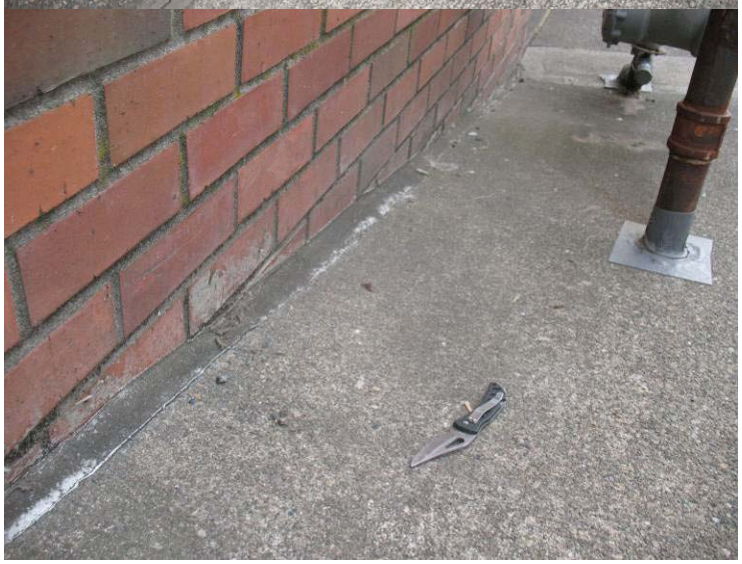


Photograph # 6.

Several gas lines penetrate the sidewalk over the Mezzanine Level of the building near the southwest corner.

Photograph # 7.

An unknown flashing membrane was installed over the gas line penetration in the sidewalk. The membrane is not adhered to the concrete. It is assumed that this was done in an attempt to seal the pipe penetration at the surface of the concrete. However, the condition of the seal at the waterproofing membrane is not visible.

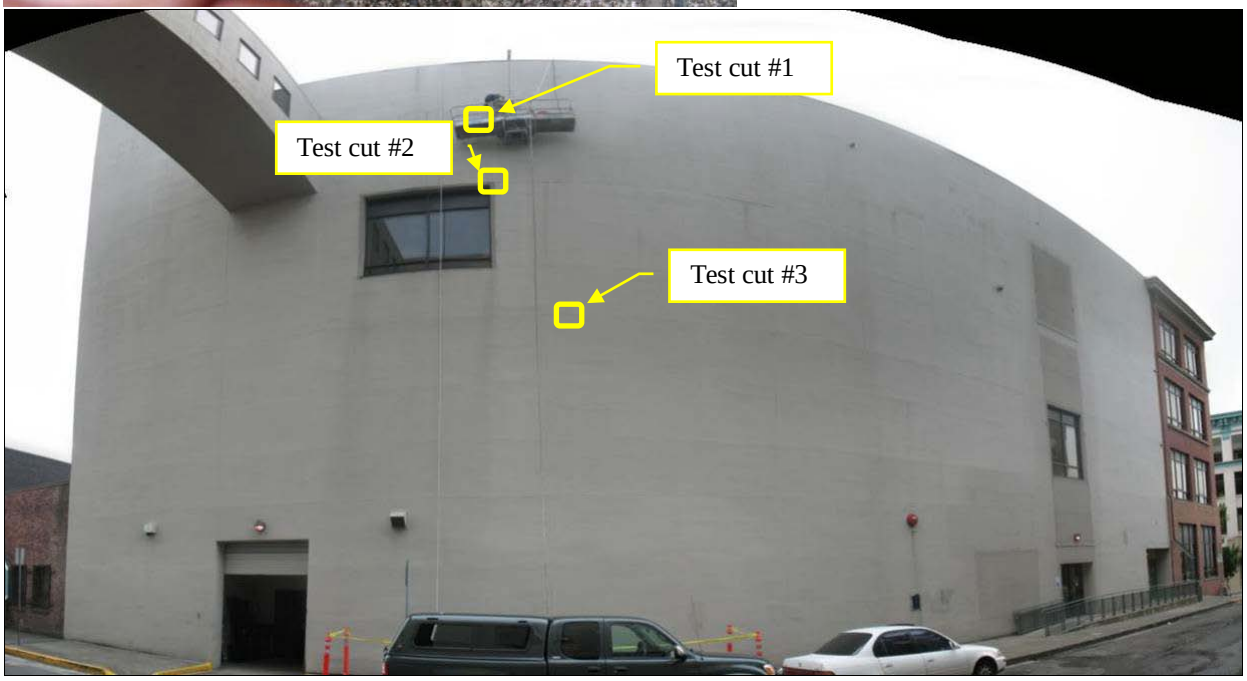


Photograph # 8.

A fillet bead of sealant has been applied between concrete sidewalk and brick veneer.

Photograph # 9.

Adhesive failure of the sealant was observed in most locations. At least three (3) subsequent layers of sealant have been applied. None are well adhered at this time.



Photograph # 10. Overview of test cut locations in the stucco cladding.

Photograph # 11.

Close-up of Test Cut #1 located at cracks in the stucco.

Photograph # 12.

Wall assembly at Test Cut #1 included steel stud framed wall with batt insulation, 5/8-inch gypsum sheathing, asphalt saturated building paper, followed by the stucco cladding.

Photograph # 13.

Close-up of cross sectional view of the stucco cladding adjacent to Test Cut #1.

Photograph # 14.

Thickness of the stucco cladding at Test Cut #1 was measured as approximately 1 ¼-inches.

Photograph # 15.

Test Cut #2 was located at the juncture of the window jamb/head juncture. Original structural brick and more recently installed framing in the rough opening were observed. Plans for the 2001 remodel indicate this window was framed and installed at that time. The joint between existing and 2001 stucco does not appear to be well sealed.

Photograph # 16.

Close-up looking into open framing at window jamb behind Test Cut #2.

Photograph # 17.

No weather resistive barrier or window wrap membrane was noted at the location of Test Cut #2.

Photograph # 18.

Adjacent to Test Cut #2, the metal control joint located between newer and older stucco at the head of the window was open and a sealant probe was easily inserted through the stucco cladding.

Photograph # 19.

Test cut #3 was located at a control joint T-intersection at approximately Level 3. This was discovered to be the location of a window head that had been framed in prior to the original stucco installation. The structural brick, steel head ledger, and framed wall assembly was visible at this location.

Photograph # 20.

Close-up of Test Cut #3 showing structural brick and steel ledger. Also, asphalt saturated building paper over gypsum sheathing is visible below.

Photograph # 21.

A Delmhorst meter was used to measure moisture content of the gypsum sheathing on the gypsum scale at Test Cut #3. Dry conditions were confirmed.

Photograph # 22.

A Delmhorst meter was used to measure moisture content of the gypsum sheathing on the gypsum scale at Test Cut #1. Dry conditions were confirmed.

Photograph # 23.

Context view of the Loading Dock and location of the test cut in the concrete sidewalk.

Photograph # 24.

Close-up of sidewalk test cut after careful removal of concrete. Only an approximately 6 x 8-inch area of the waterproofing was exposed in order to mitigate chance of damage to the waterproofing. Steel reinforcing mesh screen was observed on or just above the waterproofing layer.

Photograph # 25.

Sidewalk concrete topping slab is approximately 9-inches thick at this location.

Photograph # 26.

It appears that an asphalt based waterproofing membrane was installed under the concrete sidewalk topping slab. A flashing membrane appears to have been installed over the waterproofing at the rising wall juncture.

Photograph # 27.

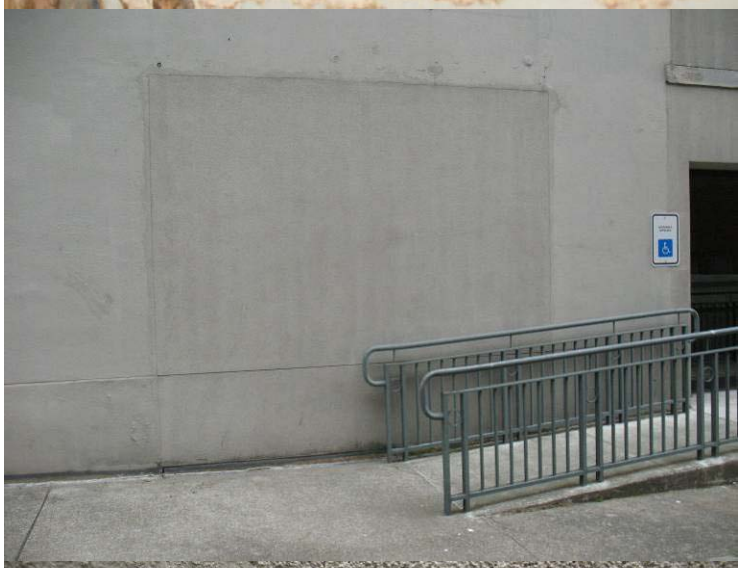
The stucco cladding extends behind the sidewalk to within approximately ½-inch of the structural concrete. The waterproofing was applied over the outside of the stucco and up approximately 4-inches.

Photograph # 28.

Water testing was done with flourescein dyed water in the test cut. Leakage to the Mezzanine Level below was confirmed within ½-hour duration (see following photo).

Photograph # 29.

Close-up of leakage from water test at sidewalk test cut. A ceiling tile was temporarily removed at a location approximately below the test cut and leakage of dyed water was confirmed.



Photograph # 30.

At the area of west elevation wall to the north of the current L & I entrance, the 1999 architectural plans indicate that an old entrance to the building was framed in and eliminated. A concrete curb is located at the bottom of the old entrance. The stucco cladding terminates at the top of the curb at this location.

Photograph # 31.

An open vertical joint between the stucco and the concrete curb was water tested with flourescein dyed water. No results were noted after approximate 30-minute duration.

Photograph # 32. During the 2001 renovation, a new ADA accessible concrete ramp was constructed over the concrete sidewalk.

Photograph # 33.

It appears that the ADA concrete ramp was placed against the existing stucco cladding without modifying the condition at the bottom of wall.

Photograph # 34.

Context view of the primary roof drain outlet at the street level of Court C. This pipe reportedly leaked into the Mezzanine Level below the west elevation wall and was subsequently repaired.

Photograph # 35.

Close-up of the previous photo. Fiberglass repair sleeve is visible at the end of the pipe. The pipe was plugged and filled with water in order to flood test the repair patch. No leakage was noted during the test.

Photograph # 36.

It was noted that at the southwest corner of the building, the Court C sidewalk slopes toward the building over the top of the Mezzanine Level.

Photograph # 37.

Water testing was also done at the southwest corner of the building. A hose was used to flood the sidewalk-to-wall juncture for approximately 30-minutes. After this duration, no leakage was noted at the Mezzanine Level below this point.

Photograph # 38.

The sky bridge roof slopes toward the Broadway Building west elevation wall.

Photograph # 39.

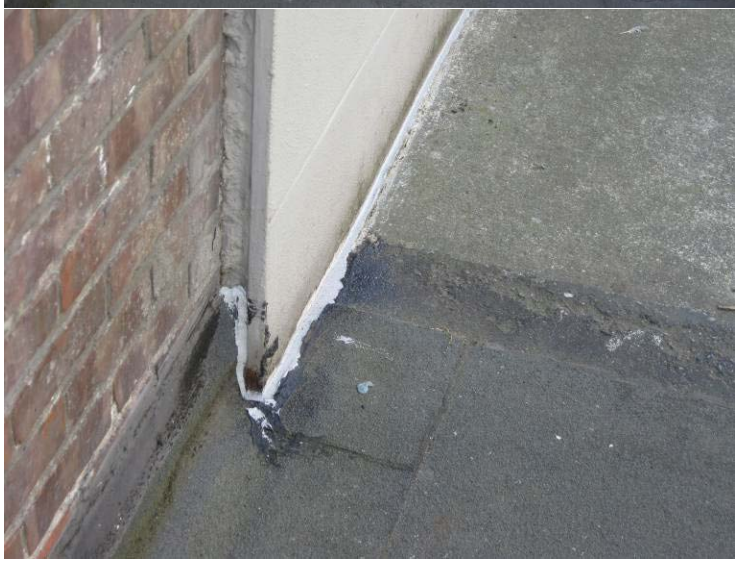
The roof drain is located approximately 18-inches away from the roof-to-wall juncture. No opposing slope was installed to provide positive drainage to the drain and evidence of standing water against the stucco cladding was noted. Reported leakage into the building is likely a result of the standing water and improper integration of the roof-to-wall cladding assemblies.

Photograph # 40.

View looking down at the side of the sky bridge where the roof perimeter-to-wall juncture is visible. Water staining below the roof perimeter-to-wall juncture suggests that leakage occurs at this location.

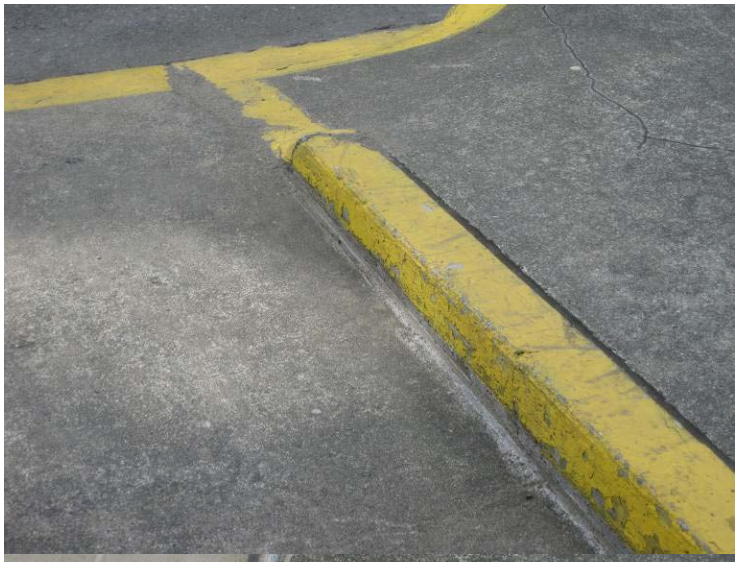
Photograph # 41.

Looking south along sidewalk and west wall.



Photograph # 42.

Sealant repairs at north end of west wall to sidewalk.



Photograph # 43.

Sealant repairs at loading dock driveway

Photograph # 44.

Concrete and sealant repairs.

Photograph # 45.

Sealant repairs along base of west wall to sidewalk.

Photograph # 46.

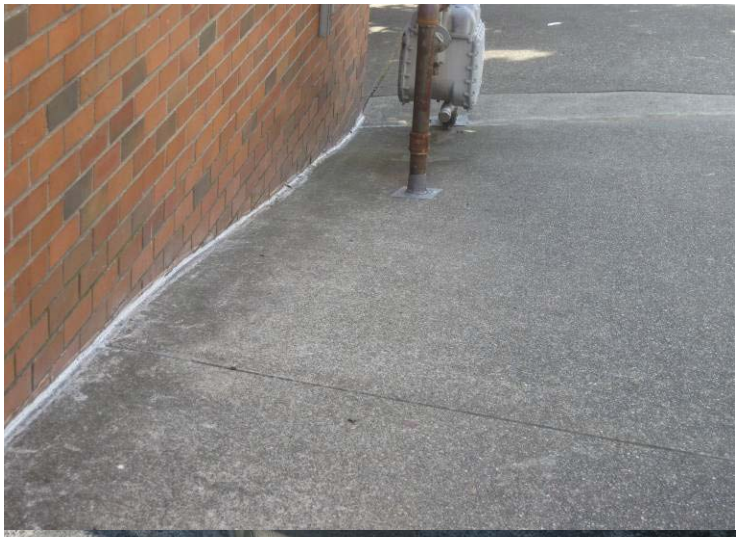
Concrete and sealant repairs at street curb to sidewalk.

Photograph # 47.

Sealant repairs at foundation step adjacent access ramp.

Photograph # 48.

Sealant repairs at steps and sidewalk to brick exterior at south end of building.



Photograph # 49.

Sealant repairs at sidewalk to brick, south end of building.

Photograph # 50.

Concrete and sealant repairs at street curb to sidewalk, south end at corner.

Photograph # 51.

Sealant repairs at SW corner.

--End of Report--

thyssenkrupp Elevator Corporation

thyssenkrupp

Final Acceptance

This form is to be completed when the elevator(s) are completed. This form must be completed and presented to the Owner or Owner's Authorized Representative for their signature.

Job/Building Name: Emergency Tacoma Rhodes
Street Address: 949 Market St (known as the 939 Market St.)
City, State, Zip Code: Tacoma WA 98042
Building Phone No.: 360 890 0840
Building Manager Name: Rick Thomas
Contract No.:

Date: 5-13-2020
To: thyssenkrupp Elevator Corporation
Attn: Billing Department
PO Box 2177
Memphis, TN 38101

Building Elevator ID No.	~~X~~ 2	Factory Serial No.	4815	Elevator Phone No.	
Building Elevator ID No.		Factory Serial No.		Elevator Phone No.	
Building Elevator ID No.		Factory Serial No.		Elevator Phone No.	
Building Elevator ID No.		Factory Serial No.		Elevator Phone No.	

Please rate thyssenkrupp's job performance:

☐ Excellent ☐ Good ☐ Fair ☐ Poor

Comments:

Key(s) Received Key & Key Number

Independent Service:	513	Hoistway Access	514
Fan/Light:	514	Run/Stop	512
Fire Service:	FEOK	Car Top Exit	
Other:			

We have examined the above listed elevator(s) furnished and completed by you in the above building under the terms of a contract between us dated 5.13.2020. The equipment as installed appears to be satisfactory and in accordance with the contract and we hereby accept it under the terms and guarantees of said contract, and acknowledge receipt of all keys as shown above.

Accepted By:

Owner/Architect: DEPT. OF ENTERPRIZE SERVICES (Type or Print)
By: SIDNEY HUNT, DES PROJECT MANAGER (Type or Print)
05.13.2020 (Signature of Authorized Official)
Title: (Type or Print)
Date:

Purchaser: (Type or Print)
By: (Type or Print)
(Signature of Authorized Official)
Title: (Type or Print)
Date:

thyssenkrupp Representative:

NIM – ROUTE PLANNING

Service OFC# | RT # | Start Date Mo. Day Yr. | Expiration Date Mo. Day Yr. | Exams Per Yr | Call Back RT OT

Special Conditions | Mech No. | Months Serviced | Safety Test M | Print

Hours to be Worked (Scheduled) Wk/Mo
1-wk 2-wk 3-wk 4-wk 5-wk

Message