Report Narrative



Jonathan Child Apartments Rochester, NY

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Vertical Access LLC (VA) was retained by the Rochester Housing Authority (RHA) to assist with the investigation of the Jonathan Child Apartments at 399 Colvin Street in Rochester, NY by performing a hands-on and close visual inspection of the exterior walls of the building. VA technicians utilized hammer sounding techniques and probed with hand tools as necessary to determine the condition of the building materials. Typical and notable conditions of deterioration were identified, documented, and quantified using digital still color photography keyed to annotated elevation drawings.

VA technicians Patrick Capruso, Dan Gordeyeva, and Tuli Kuckes were on site to perform the investigation November 7 through November 9, 2023. VA Partner-incharge Evan Kopelson was on site November 7, 2023. Julie Fox of the RHA was available to discuss initial observations and assist with site access and logistics.

Vertical Access identified five Priority 1 conditions at four locations during the investigation which present potential public safety concerns. At each location, the unsecured masonry was left in place to prevent further destabilization due to the removal of loose material. These locations are boxed in red on the annotated drawings. Overall, the brick masonry was found to be in good condition. However, isolated instances of unit displacement and spalling were documented along with patterns of cracking and mortar failure, particularly along the parapet. Hairline cracking was common through the face of the original 1912 brick units. The sandstone masonry at the water table was found to be in fair condition exhibiting widespread instances of exfoliation and delamination, microbiological growth, and sealant failure. Isolated instances of cracking and failed previous patch repairs were also noted. Minor surface corrosion was noted at the sheet metal cladding and flashings as well as the lintels, doors, and at the tension band installed around the top of the chimney.

This *Report Narrative* with photographs, annotated AutoCAD drawings and extracted condition quantities constitute VA's *Condition Survey Report* of the Jonathan Child Apartments. A users' manual for VA's Tablet PC Annotation System (TPAS®) is also included along with VA's *Conditions Glossary*. A digital copy of the *Condition Survey Report* is provided as a download via VA's file sharing site.

Description of Deliverables

Report Narrative

This *Report Narrative* includes a description of the project deliverables, the scope of work and this narrative summarizing the conditions noted during the inspection. Conditions documented by Vertical Access and described in the *Report Narrative* use terminology based on VA's *Conditions Glossary*. The *Conditions Glossary* is provided digitally as part of the project deliverables. Supporting photographs illustrating representative and notable conditions are cited in the *Report Narrative*. The last section of the *Report Narrative* includes conclusions and preliminary interpretations of the survey findings.

TPAS Users' Manual

The *TPAS Users' Manual* follows the *Report Narrative*. While printed photographs and drawings are presented as part of this report, the most efficient way to analyze the survey data is by using the features available in the digital drawing files. Readers are encouraged to refer to the *TPAS Users' Manual* before using the report to develop recommendations.

TPAS utilizes a library of previously drawn material condition symbols to annotate digital survey drawings in the field. The severity and amount of each condition are recorded within the annotations.

The *Users' Manual* describes key TPAS features:

- Enabling hyperlinks and opening digital photographs directly from the AutoCAD and PDF drawings
- Viewing and editing survey data embedded within condition annotations
- Creating views within AutoCAD or within the PDF drawing to visually display information about specific conditions, by turning layers on and off
- Extracting numerical survey information contained in the AutoCAD drawing for export into a spreadsheet or database

Photographs

The *Photographs* section of the report includes images of representative and notable conditions taken during the survey. Each photograph is hyperlinked to a condition code within the AutoCAD drawing so that it can be viewed easily as a digital file.

Each photograph has a three-part name including the Cartesian (x-y) coordinates corresponding to the condition's location within the AutoCAD drawing, the type of material and condition documented, and the year in which the photograph was taken. The Cartesian grid used to name the photographs is shown on the drawings. For reference, the table below lists the x-coordinates of the elevation views:

X-Coordinate	Elevation View	Sheet and Drawing Number
0 to 90	East Elevation	Sheet 1
200 to 290	North Elevation	Sheet 2
400 to 490	West Elevation	Sheet 3
600 to 690	South Elevation	Sheet 4
800 to 850	East Terrace Elevation	Sheet 5, Drawing 5.1
900 to 950	North Terrace Elevation	Sheet 5, Drawing 5.2
1000 to 1050	West Terrace Elevation	Sheet 6, Drawing 6.1
1100 to 1150	South Terrace Elevation	Sheet 6, Drawing 6.2

Annotated Drawings

Drawings documenting the condition of the exterior walls are provided in the *Annotated Drawings* section. For use as base drawings for the survey, the RHA provided scans of elevation drawings from previous repair work at the exterior. VA inserted the image files into a single AutoCAD drawing with each exterior elevation view placed to have a unique set of x-y coordinates.

Spreadsheet of Survey Conditions

A *Spreadsheet of Extracted Survey Conditions* is included with this report. The spreadsheet contains three sheets:

- A Data Key shows the layer, condition, code, and unit of measurement for the quantities and severity of each condition;
- The Condition Totals provides overall counts and quantities for each type of condition;
- And the Extracted Survey Conditions sheet catalogs each individual condition identified during the survey, including location, photograph, quantity and severity data extracted from the annotated AutoCAD drawings.

Digital Files

All the documents composing this *Condition Survey Report* are provided in digital format via a download from VA's file sharing site. Digital files include a full *Condition Survey Report* in PDF format, the Report Narrative in PDF format, JPG image files of survey photographs, annotated elevation drawings in AutoCAD DWG and PDF formats, and spreadsheet quantities in Microsoft Excel XLS and PDF formats.

The evaluations and recommendations in this report and its exhibits regarding the condition of building materials and the potential effect on the safety of persons and property are made in the opinion of the VA technical personnel who observed the materials on site and are based on their judgment, knowledge, and prior experience of similar conditions; however, VA makes no warranty or guarantee regarding the accuracy of these evaluations and recommendations.

Scope of Work

Industrial rope access techniques were used to investigate the masonry conditions at the Jonathan Child Apartments. In general terms, technicians are suspended on one rope termed the "work positioning line" with a redundant "fall protection line" used as backup. Descent controllers equipped with both hands-free stopping and panic locking functions and industry-specific fall protection devices are integrated into site-specific rigging systems, along with industry-specific climbing and suspension harnesses. Vertical Access technicians are third-party certified for industrial rope access work by SPRAT, the Society of Professional Rope Access Technicians.

VA technicians performed a hands-on and close visual inspection of most of the exterior walls utilizing hammer sounding techniques and hand tools to determine the condition of the building materials. At locations where industrial rope access was found to be impractical, a telephoto lens was used to document existing conditions. Typical and notable conditions of deterioration were identified, documented, and quantified using digital still color photography keyed to annotated elevation drawings.

Building Description

Designed by architect Edwin S. Gordon, of the Rochester architectural firm Gordon & Kaelber, the initial construction of the Jonathan Child Apartments was completed in 1912. The three-story transitional brick masonry building originally housed the Jonathan Child School, named in honor of the first mayor of Rochester, NY. Located at 399 Colvin Street in Rochester's Dutchtown neighborhood, the building was renovated by the Rochester Housing Authority in 1985. The architectural firm of Starks, Wurzer, Patterson & Romeo, now SWBR, designed the renovation.

Clad predominantly in buff colored brick laid in a running bond, the building features ornate relief and corbelled brick patterns located above the primary entrance at the center of the east façade, at the spandrels, and along the rooftop parapet. "Jonathan Child School" is engraved across three sandstone units situated above the entrance. The water table at the base of the building is also constructed of sandstone, the color of which is mirrored by the decorative ceramic diamond shaped tiles framing the entrance and are incorporated into the spandrel masonry. Replacement, aluminum double hung windows serve as fenestration on each of the exterior walls. Areas of brick infill, presumably from the 1985 renovation, are distinguishable at locations where the original fenestration arrangement was altered. The 2nd floor school auditorium once located at the center of the west side of the building has been removed, leaving an exposed terrace framed by segmental masonry arches on the north- and south-facing walls and sheet metal-clad concrete beams overhead.

Findings

Conditions of deterioration such as cracks, spalls, and unstable brick masonry were documented by VA technicians. The location and quantities of conditions were documented using TPAS. Each TPAS annotation includes a description of the condition, numerical values for the amount or severity of the condition and an assigned priority level, a rating of public safety concern. Priority 1 items present a potentially unsafe condition that represents a possible public safety concern. Vertical Access identified five Priority 1 conditions at four locations during the investigation. At each location, the unsecured masonry was left in place to prevent further destabilization resulting from the removal of loose material. Priority 2 conditions are not considered imminently hazardous but should be addressed in the near future. These conditions include missing and incipient spalls, cracks, and open masonry joints. All other conditions are NA (not applicable) or Priority 3, indicating an observation that does not have an immediate safety or waterproofing implication, or that is mainly aesthetic in nature, such as soiling.

For the purposes of this report, the following definitions are provided: *Excellent* condition refers to a system, material, or item that shows minimal to no deterioration and continues to serve its intended structural, waterproofing, or aesthetic function. *Good* condition is used for a system, material, or item that generally continues to serve its intended structural, waterproofing, or aesthetic function although patterns or specific instances of deterioration are present. *Fair* condition indicates that a system, material, or item has lost some of its structural, waterproofing, or aesthetic function due to deterioration or deferred maintenance. *Poor* condition refers to a system, material, or item that has lost most of its intended structural, waterproofing, or aesthetic function.

Priority 1 Conditions

- Three loose ("L") corbelled brick units were documented at the projecting parapet assembly along the south portion of the east façade (see photographs 28-36).
- A single brick located below the parapet at the center of the north façade sounded hollow ("H") when struck with a 16 oz acrylic mallet. Hammer sounding resulted in the formation of a vertical crack running through the center of the unit (see photographs 244-36).
- A corner brick located directly above the hollow sounding brick mentioned above was found to be loose (see photographs 406-37).
- A displaced brick located at the west corner on the projecting parapet masonry assembly constructed on the east end of the south façade was loose (see photographs 660-37).
- The decorative ceramic diamond located directly below the center of the same projecting parapet masonry assembly on the south façade was displaced by approximately 1/8 of an inch and found to be loose (see photographs 661-33 and 663-34).

Brick Masonry

- Overall, the brick masonry was found to be in good condition. However, isolated instances of unit displacement and spalling were documented along with patterns of cracking and mortar failure, particularly along the parapet. Hairline cracking was common through the face of the original 1912 brick units.
- Missing spalls, labeled "M" on the annotated drawings, are locations where spalled material was missing at the time of the investigation. Spalls that have not completely formed yet, resulting in an incipient spall, are labeled "I" on the annotated drawings. Where incipient or loose spalls were removed during

- the investigation, the drawings are labeled "R" for "removed." Finally, spalls that are fully-formed but held firmly in place, typically by mortar or sealant, are labeled "B" for "bonded." The number of brick spalls documented at the Jonathan Child Apartments was limited to 32 with severities typically measuring 4 square inches or less (see photographs 28-35, 53-33, and 84-34).
- Cracks through single units, labeled "C" on the annotated drawings, are differentiated from system cracks that extend through mortar joints ("CJ"), units ("CU"), or mortar joints and units ("CUJ"). Cracks and crack systems documented in the brick masonry typically exhibit widths of 1/16 of an inch or less. Crack systems through joints and units and joints were typically documented at the ornate parapet masonry or propagating from surface corroded lintels ("Srf") (see photographs 13-33, 46-32, 52-36).
- Hairline cracks through the face of the original 1912 brick units were common (see photographs 16-34, 36-28, and 46-29). This deterioration could simply be the result of age, a consequence of the firing method, or an adverse effect of relatively hard repointing mortar. In terms of cracks, the infill bricks, presumably from the 1985 renovation, are nearly flawless.
- Twelve instances of horizontal ("Hor"), vertical ("Vrt"), or horizontal and vertical ("HV") unit displacement of up to 3/8 of an inch were documented in conjunction with crack systems in the brick masonry. Unit displacement was typically observed at or directly below the parapet masonry (see photographs 54-37, 55-37, and 66-36).
- A notable instance of horizontal displacement was documented at the top of the northeast facing facet of the chimney where three brick units were displaced by approximately 1/8 of an inch (see photograph 255-35). It appears that previous attempts to stabilize the masonry with mortar at this location have failed.
- Overall, the mortar at the brick masonry joints was found to be in good condition, exhibiting only isolated instances of failure ("MorF"), typically at the parapet assemblies (see photographs 10-21, 27-35, and 57-35). Significant mortar failure was noted at the skyward-facing cornice return located above the primary entrance on the east façade (see photographs 50-22). Loose mortar was removed ("MorR") from this location (see photograph 47-22). At locations where mortar was missing from a brick masonry joint, the annotation "MorM" was used (see photographs 48-32, 60-35, and 651-36).
- Isolated occurrences of sealant failure ("SlntF") were noted at locations where the brick masonry abuts the aluminum window surrounds, steel lentils, and sheet metal flashings (see photographs 33-31, 60-26, and 71-35).

- Several instances of minor surface loss were noted at the brick masonry units where deterioration caused by erosion ("Erd"), chipping ("Chp"), or face spalling ("Fce") were observed. Surface loss at the brick masonry typically measured 1/8 of an inch or less in depth (see photographs 223-17, 249-29, and 429-25).
- Occurrences of efflorescence ("Eff"), leached salts ("Lch"), and biological growth ("Bio") were noted at the brick masonry. While these conditions are primarily aesthetic in nature, they do provide insight into which areas are exposed to bulk moisture and water infiltration (see photographs 36-33, 222-21, and 674-32).

Sandstone Masonry

• In general, the sandstone masonry at the water table was found to be in fair condition exhibiting widespread instances of minor exfoliation ("Exf") and delamination ("Dlm"), microbiological growth ("Bio"), and sealant failure ("SlntF") (see photographs 8-13, 35-13, and 88-13). Isolated instances of cracking and failed previous patch repairs ("PF") were also noted (see photographs 74-14, 255-15, and 444-12).

Metals

- Surface corrosion ("Srf") was noted at the sheet metal cladding covering the horizontal beams suspended over the 2nd floor terrace at the center of the building. Corrosion was also noted at the exposed steel lintels at window openings and at the base of the doors and door surrounds on the north and south façades. Corrosion was also typical at the brackets anchoring the fencing around the 1st floor roof on the west façade and at the tension band installed around the top of the chimney (see photographs 223-14, 258-36, 261-19, and 430-27).
- Widespread sealant failure was noted at the sheet metal joints located on the 2nd floor roof at the center of the building (see photographs 442-32).
- Dents ("Dnt"), punctures ("Pnc"), and tears ("Trn") were noted on the sheet metal parapet copings and masonry flashings (see photographs 8-20, 36-21, and 215-15).
- Failed fasteners ("FstF") were observed at the brackets anchoring the fencing around the perimeter of the 1st floor roof on the west façade (see photographs 261-17, 429-19, and 432-17).

Conclusions and Preliminary Interpretations

Vertical Access utilized industrial rope access techniques to perform a hands-on and close visual investigation of most of the exterior walls at the Jonathan Child Apartments. At locations where industrial rope access was found to be impractical, a telephoto lens was used to document existing conditions. While the majority of the conditions documented by VA were considered safe with repair and maintenance, five Priority 1 conditions at four locations were documented during the investigation. At each of these locations, unsecured masonry was left in place to prevent further destabilization due to the removal of loose material. These conditions are boxed in red on the annotated drawings.

Vertical Access remains available to the project team to discuss our findings and to demonstrate the functionality and utility of TPAS for evaluating the conditions of the Jonathan Child Apartments.

Respectfully submitted for Vertical Access LLC by:

Patrick Capruso

Patro Como

and

Evan Kopelson

Ella

Partner-in-charge

Block	Condition	Code	Severity Units	Amount Units
ArchMetal_Connection	Fastener failed	FstF	N / A	Count
ArchMetal_Corrosion	Surface	Srf	N/A	Area in square feet
ArchMetal_Sealant	Sealant Failed	SlntF	N/A	Length in linear feet
ArchMetal_Unsecured	Loose	L	N/A	Area in square feet
Brick_Crack	Single unit	С	Width in 1/16" increments	Length in linear feet
Brick_Crack	System joints	СЈ	Width in 1/16" increments	Length in linear feet
Brick_Crack	System units and joints	CUJ	Width in 1/16" increments	Length in linear feet
Brick_Crack	System units	CU	Width in 1/16" increments	Length in linear feet
Brick_Displacement	Horizontal	Hor	1/8" increments	Area in square feet
Brick_Displacement	Horizontal and Vertical	HV	1/8" increments	Area in square feet
Brick_Displacement	Vertical	Vrt	1/8" increments	Area in square feet
Brick_Embedment	Ferrous Embedment	Fe	N/A	N/A
Brick_Joints	Sealant Failed	SlntF	Percentage	Length in linear feet
Brick_Joints	Mortar Failed	MorF	Percentage	Area in square feet
Brick_Joints	Mortar Missing	MorM	Percentage	Length in linear feet
Brick_Joints	Mortar Removed	MorR	Percentage	Length in linear feet
Brick_Lintel	Surface rust	Srf	Deformation in 1/8" increments	Length in linear feet
Brick_Repair	Replacement	Rpl	N/A	Area in square feet
Brick_Repair	Patch Failed	PF	N/A	Area in square inches
Brick_SoilStain	Biological	Bio	N/A	Area in square feet
Brick_SoilStain	Efflorescence	Eff	N / A	Area in square feet
Brick_SoilStain	Rust	Rst	N / A	Area in square feet
Brick_SoilStain	Leached Salts	Lch	N/A	Area in square feet
Brick_SoilStain	Bituminous	Bit	N/A	Area in square feet
Brick_SoilStain	Atmospheric	Atm	N/A	Area in square feet
Brick_SoilStain	Cementitious	Cem	N/A	Area in square feet
Brick_Spall	Missing	M	Size in square inches	N / A

Block	Condition	Code	Severity Units	Amount Units
Brick_Spall	Bonded	В	Size in square inches	N/A
Brick_Spall	Removed	R	Size in square inches	N/A
Brick_Spall	Incipient	Ι	Size in square inches	N / A
Brick_SurfLoss	Face spalled	Fce	Depth in 1/8" increments	Area in square feet
Brick_SurfLoss	Eroded	Erd	Depth in 1/8" increments	Area in square feet
Brick_SurfLoss	Chipped	Chp	Depth in 1/8" increments	Area in square feet
Brick_Unsecured	Loose	L	N/A	Area in square feet
Brick_Unsecured	Hollow	Н	N/A	Area in square feet
Concrete_Coating	Coating Failed	CtF	N/A	Area in square feet
Concrete_Crack	Single unit	С	Width in 1/16" increments	Length in linear feet
Concrete_Crack	Crazing	Crz	N/A	Area in square feet
Concrete_Spall	Missing	M	Size in square inches	N / A
Glass_Joint	Gasket failed	GskF	N/A	Length in linear feet
RoofMembrane_Debonded	Debonded	Dbnd	N/A	Area in square feet
RoofMembrane_Deteriorated	Crazing	Crz	N/A	Area in square feet
SheetMetal_Corrosion	Surface	Srf	N/A	Area in square feet
SheetMetal_Damaged	Dented	Dnt	N/A	Area in square feet
SheetMetal_Damaged	Torn	Trn	N/A	Length in linear feet
SheetMetal_Damaged	Punctured	Pnc	N/A	Diameter in inches
SheetMetal_Seam	Solder Failed	SldF	N/A	Length in linear feet
SheetMetal_Seam	Sealant Failed	SlntF	N / A	Length in linear feet
SheetMetal_Unsecured	Loose	L	N/A	Area in square feet
Stone_Coating	Coating Failed	CtF	N/A	Area in square feet
Stone_Crack	Repair failed	CRprF	Width in 1/16" increments	Length in linear feet
Stone_Crack	System units and joints	CUJ	Width in 1/16" increments	Length in linear feet
Stone_Crack	Single unit	С	Width in 1/16" increments	Length in linear feet
Stone_Embedment	Ferrous Embedment	Fe	N/A	N/A
Stone_Joints	Sealant Failed	SlntF	N / A	Length in linear feet

Block	Condition	Code	Severity Units	Amount Units
Stone_Joints	Mortar Failed	MorF	Percentage	Area in square feet
Stone_Repair	Patch Failed	PF	N/A	Area in square inches
Stone_SoilStain	Biological	Bio	N/A	Area in square feet
Stone_SoilStain	Efflorescence	Eff	N/A	Area in square feet
Stone_Spall	Missing	M	Size in square inches	N / A
Stone_SurfLoss	Exfoliated	Exf	Depth in 1/8" increments	Area in square feet
Stone_SurfLoss	Delaminated	Dlm	Depth in 1/8" increments	Area in square feet
Stucco_Coating	Coating Failed	CtF	N/A	Area in square feet
Stucco_Coating	Coating Sound	Ct	N/A	Area in square feet
Stucco_Crack	Crack	С	Width in 1/16" increments	Length in linear feet
Stucco_Joint	Sealant Failed	SlntF	N/A	Length in linear feet
Wood_Deteriorated	Weathered	Wthr	N/A	Area in square feet

Block	Condition	Code	Total Locations	Total Quantity/Amount
ArchMetal_Connection	Fastener failed	FstF	3	7.00
ArchMetal_Corrosion	Surface	Srf	7	25.90
ArchMetal_Sealant	Sealant Failed	SlntF	2	11.40
ArchMetal_Unsecured	Loose	L	2	0.70
Brick_Crack	Single unit	С	94	252.00
Brick_Crack	System joints	CJ	69	179.10
Brick_Crack	System units	CU	12	16.60
Brick_Crack	System units and joints	CUJ	42	115.60
Brick_Displacement	Horizontal	Hor	7	8.80
Brick_Displacement	Horizontal and Vertical	HV	4	6.90
Brick_Displacement	Vertical	Vrt	1	0.10
Brick_Embedment	Ferrous Embedment	Fe	5	0.00
Brick_Joints	Mortar Failed	MorF	55	130.20
Brick_Joints	Mortar Missing	MorM	10	53.30
Brick_Joints	Mortar Removed	MorR	1	4.20
Brick_Joints	Sealant Failed	SlntF	33	142.10
Brick_Lintel	Surface rust	Srf	15	76.20
Brick_Repair	Patch Failed	PF	3	21.00
Brick_Repair	Replacement	Rpl	9	200.00
Brick_SoilStain	Atmospheric	Atm	3	7.70
Brick_SoilStain	Biological	Bio	11	19.60
Brick_SoilStain	Bituminous	Bit	6	4.20
Brick_SoilStain	Cementitious	Cem	1	0.90
Brick_SoilStain	Efflorescence	Eff	15	85.50
Brick_SoilStain	Leached Salts	Lch	3	1.00
Brick_SoilStain	Rust	Rst	6	4.60
Brick_Spall	Bonded	В	6	71.00
Brick_Spall	Incipient	Ι	7	11.50
Brick_Spall	Missing	M	11	41.00
Brick_Spall	Removed	R	9	25.00
Brick_SurfLoss	Chipped	Chp	5	1.10
Brick_SurfLoss	Eroded	Erd	2	14.60
Brick_SurfLoss	Face spalled	Fce	2	0.90

Block	Condition	Code	Total Locations	Total Quantity/Amount
Brick_Unsecured	Hollow	Н	3	1.80
Brick_Unsecured	Loose	L	7	3.30
Concrete_Coating	Coating Failed	CtF	1	0.40
Concrete_Crack	Crazing	Crz	1	4.00
Concrete_Crack	Single unit	С	2	2.60
Concrete_Spall	Missing	M	1	2.00
Glass_Joint	Gasket failed	GskF	1	0.80
RoofMembrane_Debonded	Debonded	Dbnd	1	7.80
RoofMembrane_Deteriorated	Crazing	Crz	1	18.00
SheetMetal_Corrosion	Surface	Srf	5	11.30
SheetMetal_Damaged	Dented	Dnt	2	2.60
SheetMetal_Damaged	Punctured	Pnc	1	0.50
SheetMetal_Damaged	Torn	Trn	1	4.90
SheetMetal_Seam	Sealant Failed	SlntF	11	34.50
SheetMetal_Seam	Solder Failed	SldF	1	3.90
SheetMetal_Unsecured	Loose	L	2	4.50
Stone_Coating	Coating Failed	CtF	1	9.00
Stone_Crack	Repair failed	CRprF	2	3.00
Stone_Crack	Single unit	С	7	8.50
Stone_Crack	System units and joints	CUJ	1	0.40
Stone_Embedment	Ferrous Embedment	Fe	1	0.00
Stone_Joints	Mortar Failed	MorF	1	2.70
Stone_Joints	Sealant Failed	SlntF	25	32.50
Stone_Repair	Patch Failed	PF	4	36.00
Stone_SoilStain	Biological	Bio	13	123.50
Stone_SoilStain	Efflorescence	Eff	1	1.70
Stone_Spall	Missing	M	1	48.00
Stone_SurfLoss	Delaminated	Dlm	2	1.00
Stone_SurfLoss	Exfoliated	Exf	28	107.30
Stucco_Coating	Coating Failed	CtF	3	7.80
Stucco_Coating	Coating Sound	Ct	1	9.70
Stucco_Crack	Crack	С	10	54.20
Stucco_Joint	Sealant Failed	SlntF	1	5.30
Wood_Deteriorated	Weathered	Wthr	1	0.20

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
ArchMetal_Connection	Fastener failed	261.0	17.0	FstF	1.00	N / A	Pr2	Yes	
ArchMetal_Connection	Fastener failed	429.0	19.0	FstF	2.00	N/A	Pr2	Yes	
ArchMetal_Connection	Fastener failed	432.0	17.0	FstF	4.00	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	223.0	14.0	Srf	2.54	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	253.0	13.0	Srf	2.00	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	258.0	36.0	Srf	1.04	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	261.0	19.0	Srf	0.36	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	440.0	16.0	Srf	0.44	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	671.0	29.0	Srf	0.27	N/A	Pr2	Yes	
ArchMetal_Corrosion	Surface	1027.0	22.0	Srf	19.22	N/A	Pr3	No	
ArchMetal_Sealant	Sealant Failed	421.0	24.0	SlntF	1.15	N/A	Pr2	Yes	
ArchMetal_Sealant	Sealant Failed	607.0	16.0	SlntF	10.22	N/A	Pr2	Yes	
ArchMetal_Unsecured	Loose	72.0	17.0	L	0.13	N/A	Pr2	Yes	
ArchMetal_Unsecured	Loose	432.0	18.0	L	0.56	N/A	Pr2	Yes	
Brick_Crack	Single unit	14.0	34.0	С	8.80	0.00	Pr2	Yes	x16
Brick_Crack	Single unit	14.0	32.0	С	2.84	0.00	Pr2	Yes	x4
Brick_Crack	Single unit	14.0	19.0	С	3.60	0.00	Pr3	Yes	x4
Brick_Crack	Single unit	15.0	20.0	С	0.35	0.00	Pr2	Yes	
Brick_Crack	Single unit	16.0	34.0	С	7.84	0.00	Pr2	Yes	x12
Brick_Crack	Single unit	22.0	34.0	С	10.04	0.00	Pr3	Yes	x12
Brick_Crack	Single unit	23.0	27.0	С	8.81	0.00	Pr2	Yes	x14
Brick_Crack	Single unit	24.0	26.0	С	9.29	0.00	Pr3	Yes	x18
Brick_Crack	Single unit	25.0	27.0	С	6.89	0.00	Pr2	Yes	x15
Brick_Crack	Single unit	26.0	33.0	С	5.73	0.00	Pr3	Yes	x6
Brick_Crack	Single unit	28.0	20.0	С	0.40	0.00	Pr2	Yes	12 units
Brick_Crack	Single unit	28.0	15.0	С	0.40	0.00	Pr2	Yes	29 units
Brick_Crack	Single unit	28.0	25.0	С	0.40	0.00	Pr2	Yes	
Brick_Crack	Single unit	28.0	34.0	С	0.15	0.00	Pr2	Yes	4 units
Brick_Crack	Single unit	28.0	31.0	С	5.24	0.40	Pr2	Yes	6 units
Brick_Crack	Single unit	28.0	34.0	С	0.65	0.50	Pr2	Yes	
Brick_Crack	Single unit	28.0	35.0	С	0.22	0.00	Pr2	Yes	
Brick_Crack	Single unit	30.0	33.0	С	0.40	0.00	Pr2	Yes	7 units

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	Single unit	31.0	22.0	С	0.40	0.00	Pr2	Yes	
Brick_Crack	Single unit	31.0	29.0	С	0.40	0.00	Pr2	Yes	18 units
Brick_Crack	Single unit	32.0	20.0	С	0.40	0.00	Pr2	Yes	7 units
Brick_Crack	Single unit	32.0	17.0	С	0.40	0.00	Pr2	Yes	6 units
Brick_Crack	Single unit	33.0	19.0	С	0.40	0.00	Pr2	No	5 units
Brick_Crack	Single unit	36.0	20.0	С	0.50	0.00	Pr2	Yes	6 units
Brick_Crack	Single unit	36.0	28.0	С	0.50	0.00	Pr2	Yes	23 units
Brick_Crack	Single unit	37.0	33.0	С	0.14	0.00	Pr2	Yes	
Brick_Crack	Single unit	38.0	20.0	С	0.19	0.00	Pr2	Yes	
Brick_Crack	Single unit	41.0	25.0	С	8.95	0.00	Pr2	Yes	x9
Brick_Crack	Single unit	45.0	18.0	С	0.39	0.00	Pr2	Yes	
Brick_Crack	Single unit	46.0	29.0	С	4.42	0.00	Pr2	Yes	crazing
Brick_Crack	Single unit	47.0	29.0	С	0.32	0.00	Pr2	Yes	
Brick_Crack	Single unit	47.0	20.0	С	5.80	0.00	Pr2	Yes	x7
Brick_Crack	Single unit	49.0	22.0	С	0.21	1.00	Pr2	Yes	
Brick_Crack	Single unit	51.0	33.0	С	0.17	1.00	Pr2	Yes	
Brick_Crack	Single unit	52.0	18.0	С	4.32	1.00	Pr2	Yes	12 units
Brick_Crack	Single unit	52.0	22.0	С	0.20	0.50	Pr3	Yes	
Brick_Crack	Single unit	54.0	27.0	С	7.26	1.00	Pr2	Yes	approx 12
Brick_Crack	Single unit	55.0	22.0	С	4.37	0.50	Pr3	Yes	approx 8
Brick_Crack	Single unit	59.0	21.0	С	0.20	0.50	Pr2	Yes	
Brick_Crack	Single unit	59.0	34.0	С	0.44	0.00	Pr2	Yes	
Brick_Crack	Single unit	59.0	28.0	С	0.35	0.00	Pr2	Yes	
Brick_Crack	Single unit	61.0	14.0	С	0.51	0.00	Pr3	Yes	
Brick_Crack	Single unit	61.0	28.0	С	0.33	0.50	Pr2	Yes	3 units
Brick_Crack	Single unit	62.0	35.0	С	0.40	0.00	Pr2	Yes	
Brick_Crack	Single unit	63.0	15.0	С	0.57	0.00	Pr3	Yes	
Brick_Crack	Single unit	64.0	22.0	С	0.18	0.00	Pr2	Yes	6 units
Brick_Crack	Single unit	64.0	30.0	С	0.31	0.00	Pr2	Yes	4 units at sill
Brick_Crack	Single unit	65.0	16.0	С	20.00	0.00	Pr2	Yes	scores of units
Brick_Crack	Single unit	65.0	35.0	С	0.32	0.00	Pr3	Yes	
Brick_Crack	Single unit	84.0	36.0	С	0.14	1.00	Pr2	Yes	
Brick_Crack	Single unit	206.0	33.0	С	0.10	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	Single unit	226.0	26.0	С	0.20	0.00	Pr3	Yes	x12
Brick_Crack	Single unit	226.0	16.0	С	0.20	0.00	Pr3	Yes	x30
Brick_Crack	Single unit	226.0	33.0	С	0.25	0.00	Pr3	Yes	x4
Brick_Crack	Single unit	230.0	26.0	С	0.20	0.00	Pr3	Yes	x26
Brick_Crack	Single unit	233.0	30.0	С	0.20	0.00	Pr3	Yes	x5
Brick_Crack	Single unit	239.0	34.0	С	0.20	9.00	Pr3	Yes	
Brick_Crack	Single unit	243.0	29.0	С	3.31	0.00	Pr3	Yes	х3
Brick_Crack	Single unit	245.0	29.0	С	6.66	0.00	Pr3	Yes	x14
Brick_Crack	Single unit	245.0	33.0	С	0.20	0.00	Pr3	Yes	x12
Brick_Crack	Single unit	245.0	19.0	С	7.14	0.00	Pr3	Yes	x17
Brick_Crack	Single unit	245.0	23.0	С	7.48	0.00	Pr3	Yes	x10
Brick_Crack	Single unit	255.0	31.0	С	15.35	0.00	Pr3	No	30 units
Brick_Crack	Single unit	265.0	20.0	С	0.24	0.00	Pr3	Yes	
Brick_Crack	Single unit	266.0	16.0	С	0.16	0.00	Pr3	No	
Brick_Crack	Single unit	267.0	25.0	С	0.40	0.00	Pr3	No	
Brick_Crack	Single unit	267.0	27.0	С	0.40	0.00	Pr3	No	11 units
Brick_Crack	Single unit	268.0	30.0	С	0.11	0.00	Pr3	Yes	
Brick_Crack	Single unit	269.0	34.0	С	0.24	0.00	Pr2	Yes	
Brick_Crack	Single unit	271.0	27.0	С	6.18	0.00	Pr2	No	10 units
Brick_Crack	Single unit	273.0	25.0	С	0.29	0.00	Pr3	Yes	
Brick_Crack	Single unit	276.0	32.0	С	0.15	0.00	Pr3	Yes	
Brick_Crack	Single unit	276.0	26.0	С	0.40	0.00	Pr3	Yes	11 units
Brick_Crack	Single unit	277.0	34.0	С	0.15	0.00	Pr3	Yes	
Brick_Crack	Single unit	277.0	28.0	С	2.40	0.00	Pr3	Yes	3 units
Brick_Crack	Single unit	278.0	19.0	C	0.15	0.50	Pr3	No	
Brick_Crack	Single unit	408.0	28.0	С	0.20	0.00	Pr3	Yes	
Brick_Crack	Single unit	418.0	33.0	С	6.54	0.00	Pr3	Yes	
Brick_Crack	Single unit	428.0	36.0	С	13.82	1.00	Pr3	Yes	approx 20
Brick_Crack	Single unit	428.0	25.0	С	8.18	0.50	Pr2	Yes	approx 20
Brick_Crack	Single unit	429.0	35.0	С	0.40	1.00	Pr2	Yes	
Brick_Crack	Single unit	433.0	24.0	С	13.70	0.00	Pr2	Yes	75 percent units
Brick_Crack	Single unit	450.0	28.0	С	1.30	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	Single unit	454.0	16.0	С	0.27	0.00	Pr3	Yes	4 units
Brick_Crack	Single unit	454.0	35.0	С	0.17	0.50	Pr3	Yes	
Brick_Crack	Single unit	459.0	19.0	С	0.40	0.00	Pr3	Yes	5 units
Brick_Crack	Single unit	461.0	20.0	С	0.30	0.00	Pr3	Yes	8 units
Brick_Crack	Single unit	610.0	33.0	С	2.66	1.00	Pr2	Yes	
Brick_Crack	Single unit	612.0	25.0	С	0.27	0.50	Pr2	Yes	
Brick_Crack	Single unit	624.0	25.0	С	0.48	1.00	Pr2	Yes	
Brick_Crack	Single unit	932.0	32.0	С	0.44	0.00	Pr2	Yes	
Brick_Crack	Single unit	932.0	28.0	С	12.78	0.00	Pr3	Yes	7 units
Brick_Crack	Single unit	934.0	32.0	С	0.58	1.00	Pr2	Yes	
Brick_Crack	Single unit	1132.0	26.0	С	1.30	0.50	Pr2	No	
Brick_Crack	System joints	13.0	33.0	CJ	1.00	2.00	Pr2	Yes	
Brick_Crack	System joints	13.0	24.0	CJ	2.34	1.00	Pr2	Yes	
Brick_Crack	System joints	15.0	34.0	CJ	1.77	0.00	Pr2	Yes	
Brick_Crack	System joints	15.0	26.0	CJ	3.47	1.00	Pr2	Yes	
Brick_Crack	System joints	25.0	34.0	CJ	2.36	0.00	Pr2	Yes	
Brick_Crack	System joints	28.0	33.0	CJ	0.43	0.50	Pr2	Yes	
Brick_Crack	System joints	28.0	35.0	CJ	0.28	0.50	Pr2	Yes	
Brick_Crack	System joints	32.0	20.0	CJ	1.93	0.00	Pr2	Yes	
Brick_Crack	System joints	35.0	32.0	CJ	0.68	0.50	Pr2	Yes	
Brick_Crack	System joints	37.0	32.0	CJ	0.21	0.50	Pr2	Yes	
Brick_Crack	System joints	37.0	19.0	CJ	0.83	0.00	Pr2	Yes	
Brick_Crack	System joints	41.0	32.0	CJ	4.81	0.50	Pr2	Yes	
Brick_Crack	System joints	43.0	33.0	CJ	5.34	1.00	Pr2	Yes	
Brick_Crack	System joints	45.0	33.0	CJ	2.02	0.50	Pr2	Yes	
Brick_Crack	System joints	45.0	32.0	CJ	0.96	0.00	Pr2	Yes	
Brick_Crack	System joints	52.0	36.0	CJ	5.37	2.00	Pr2	Yes	
Brick_Crack	System joints	53.0	28.0	CJ	3.00	1.00	Pr2	Yes	
Brick_Crack	System joints	54.0	20.0	CJ	2.72	1.00	Pr2	Yes	
Brick_Crack	System joints	54.0	34.0	CJ	3.15	1.00	Pr2	Yes	
Brick_Crack	System joints	71.0	20.0	CJ	3.00	1.00	Pr2	Yes	
Brick_Crack	System joints	72.0	27.0	CJ	1.50	1.00	Pr2	Yes	
Brick_Crack	System joints	83.0	27.0	CJ	4.00	1.00	Pr2	Yes	
Brick_Crack	System joints	83.0	34.0	CJ	3.22	1.00	Pr2	Yes	
Brick_Crack	System joints	207.0	29.0	CJ	3.00	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	System joints	225.0	18.0	CJ	2.00	1.00	Pr2	Yes	
Brick_Crack	System joints	243.0	27.0	CJ	3.36	0.00	Pr2	Yes	
Brick_Crack	System joints	243.0	34.0	CJ	1.44	1.00	Pr2	Yes	
Brick_Crack	System joints	257.0	32.0	CJ	3.00	1.00	Pr2	Yes	
Brick_Crack	System joints	271.0	15.0	CJ	6.00	1.00	Pr2	Yes	
Brick_Crack	System joints	406.0	35.0	CJ	0.91	0.00	Pr2	Yes	
Brick_Crack	System joints	408.0	34.0	CJ	0.92	0.00	Pr2	Yes	
Brick_Crack	System joints	427.0	35.0	CJ	1.14	1.00	Pr2	Yes	
Brick_Crack	System joints	451.0	23.0	CJ	2.43	1.50	Pr2	Yes	
Brick_Crack	System joints	454.0	23.0	CJ	0.76	1.00	Pr2	No	
Brick_Crack	System joints	455.0	13.0	CJ	0.85	1.00	Pr2	No	
Brick_Crack	System joints	460.0	23.0	CJ	3.00	0.00	Pr2	Yes	
Brick_Crack	System joints	481.0	33.0	CJ	3.73	0.50	Pr2	Yes	
Brick_Crack	System joints	604.0	18.0	CJ	0.54	1.00	Pr2	Yes	
Brick_Crack	System joints	609.0	18.0	CJ	2.51	2.00	Pr2	Yes	
Brick_Crack	System joints	609.0	21.0	CJ	2.27	0.00	Pr2	Yes	
Brick_Crack	System joints	609.0	23.0	CJ	2.01	0.50	Pr2	Yes	
Brick_Crack	System joints	609.0	16.0	CJ	1.82	0.00	Pr2	Yes	
Brick_Crack	System joints	609.0	31.0	CJ	1.96	0.50	Pr2	Yes	
Brick_Crack	System joints	611.0	24.0	CJ	0.88	0.50	Pr2	Yes	
Brick_Crack	System joints	614.0	32.0	CJ	4.25	1.00	Pr2	Yes	
Brick_Crack	System joints	615.0	26.0	CJ	2.65	0.50	Pr2	Yes	
Brick_Crack	System joints	621.0	19.0	CJ	0.52	0.50	Pr2	Yes	
Brick_Crack	System joints	622.0	20.0	CJ	2.27	0.50	Pr2	Yes	
Brick_Crack	System joints	623.0	26.0	CJ	0.98	0.50	Pr2	Yes	
Brick_Crack	System joints	626.0	26.0	CJ	0.68	0.50	Pr2	Yes	
Brick_Crack	System joints	628.0	32.0	CJ	1.96	0.50	Pr2	Yes	
Brick_Crack	System joints	635.0	32.0	CJ	5.60	0.50	Pr2	Yes	
Brick_Crack	System joints	636.0	26.0	CJ	3.74	1.00	Pr2	Yes	
Brick_Crack	System joints	641.0	31.0	CJ	1.40	0.00	Pr2	Yes	
Brick_Crack	System joints	642.0	29.0	CJ	16.52	1.00	Pr2	Yes	
Brick_Crack	System joints	643.0	26.0	CJ	3.03	0.00	Pr2	Yes	
Brick_Crack	System joints	657.0	33.0	CJ	2.84	1.00	Pr2	Yes	
Brick_Crack	System joints	658.0	33.0	CJ	1.33	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	System joints	659.0	33.0	CJ	1.05	1.00	Pr2	Yes	
Brick_Crack	System joints	663.0	25.0	CJ	7.00	1.00	Pr2	Yes	
Brick_Crack	System joints	663.0	30.0	CJ	0.39	1.00	Pr2	Yes	
Brick_Crack	System joints	665.0	23.0	CJ	4.00	1.00	Pr2	Yes	
Brick_Crack	System joints	665.0	32.0	CJ	3.50	1.00	Pr2	Yes	
Brick_Crack	System joints	1044.0	27.0	CJ	2.97	0.50	Pr2	No	
Brick_Crack	System joints	1049.0	20.0	CJ	4.62	0.50	Pr2	No	
Brick_Crack	System joints	1106.0	20.0	CJ	1.58	0.50	Pr2	Yes	
Brick_Crack	System joints	1119.0	27.0	CJ	4.34	0.50	Pr2	Yes	
Brick_Crack	System joints	1120.0	20.0	CJ	1.75	0.50	Pr2	Yes	
Brick_Crack	System joints	1142.0	27.0	CJ	1.19	1.00	Pr2	No	
Brick_Crack	System units	63.0	35.0	CU	0.58	0.00	Pr2	Yes	
Brick_Crack	System units	217.0	16.0	CU	0.80	0.50	Pr2	Yes	
Brick_Crack	System units	217.0	28.0	CU	2.00	1.00	Pr2	Yes	
Brick_Crack	System units	243.0	22.0	CU	0.84	1.00	Pr2	Yes	
Brick_Crack	System units	259.0	33.0	CU	2.50	1.00	Pr2	Yes	
Brick_Crack	System units	266.0	25.0	CU	0.80	0.00	Pr2	No	
Brick_Crack	System units	428.0	27.0	CU	1.00	0.50	Pr2	Yes	
Brick_Crack	System units	430.0	31.0	CU	2.00	1.00	Pr2	Yes	
Brick_Crack	System units	430.0	29.0	CU	1.00	0.50	Pr2	Yes	
Brick_Crack	System units	432.0	32.0	CU	2.00	1.00	Pr2	Yes	x3
Brick_Crack	System units	642.0	17.0	CU	1.76	0.00	Pr2	Yes	
Brick_Crack	System units	656.0	17.0	CU	1.36	0.00	Pr2	Yes	
Brick_Crack	System units and joints	31.0	34.0	CUJ	0.93	0.50	Pr2	Yes	
Brick_Crack	System units and joints	37.0	33.0	CUJ	0.44	0.50	Pr2	Yes	
Brick_Crack	System units and joints	46.0	32.0	CUJ	1.54	1.00	Pr2	Yes	
Brick_Crack	System units and joints	47.0	33.0	CUJ	0.51	0.50	Pr2	Yes	
Brick_Crack	System units and joints	66.0	32.0	CUJ	5.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	67.0	32.0	CUJ	2.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	68.0	34.0	CUJ	6.00	2.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	System units and joints	69.0	31.0	CUJ	4.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	74.0	34.0	CUJ	3.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	220.0	16.0	CUJ	4.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	244.0	36.0	CUJ	2.19	0.00	Pr2	Yes	
Brick_Crack	System units and joints	253.0	27.0	CUJ	2.50	2.00	Pr2	Yes	
Brick_Crack	System units and joints	258.0	17.0	CUJ	3.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	419.0	29.0	CUJ	0.80	1.00	Pr2	Yes	
Brick_Crack	System units and joints	419.0	31.0	CUJ	1.50	1.00	Pr2	Yes	
Brick_Crack	System units and joints	428.0	31.0	CUJ	2.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	428.0	16.0	CUJ	2.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	429.0	29.0	CUJ	2.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	430.0	36.0	CUJ	1.12	1.00	Pr2	Yes	
Brick_Crack	System units and joints	431.0	27.0	CUJ	6.00	2.00	Pr2	Yes	
Brick_Crack	System units and joints	449.0	22.0	CUJ	6.00	3.00	Pr2	Yes	
Brick_Crack	System units and joints	454.0	28.0	CUJ	4.42	3.00	Pr2	Yes	Also on Return
Brick_Crack	System units and joints	455.0	22.0	CUJ	5.73	1.00	Pr2	Yes	
Brick_Crack	System units and joints	467.0	17.0	CUJ	1.99	0.50	Pr2	Yes	
Brick_Crack	System units and joints	608.0	35.0	CUJ	1.45	1.00	Pr2	Yes	
Brick_Crack	System units and joints	626.0	24.0	CUJ	0.87	0.50	Pr2	Yes	
Brick_Crack	System units and joints	628.0	26.0	CUJ	2.56	0.50	Pr2	Yes	
Brick_Crack	System units and joints	642.0	33.0	CUJ	1.61	0.00	Pr2	Yes	
Brick_Crack	System units and joints	659.0	33.0	CUJ	1.82	0.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Crack	System units and joints	659.0	36.0	CUJ	1.08	1.00	Pr2	Yes	
Brick_Crack	System units and joints	659.0	33.0	CUJ	5.28	1.00	Pr2	Yes	
Brick_Crack	System units and joints	660.0	31.0	CUJ	1.25	1.00	Pr2	Yes	
Brick_Crack	System units and joints	661.0	35.0	CUJ	1.02	0.50	Pr2	Yes	
Brick_Crack	System units and joints	664.0	34.0	CUJ	3.00	2.00	Pr2	Yes	
Brick_Crack	System units and joints	666.0	28.0	CUJ	6.00	1.00	Pr2	Yes	
Brick_Crack	System units and joints	678.0	34.0	CUJ	0.64	1.00	Pr2	Yes	
Brick_Crack	System units and joints	1004.0	25.0	CUJ	1.58	0.50	Pr2	Yes	
Brick_Crack	System units and joints	1007.0	24.0	CUJ	1.52	0.50	Pr2	Yes	
Brick_Crack	System units and joints	1040.0	43.0	CUJ	1.47	1.00	Pr2	No	
Brick_Crack	System units and joints	1045.0	44.0	CUJ	1.35	1.00	Pr2	No	
Brick_Crack	System units and joints	1046.0	26.0	CUJ	5.66	0.50	Pr2	Yes	
Brick_Crack	System units and joints	1123.0	25.0	CUJ	8.80	1.00	Pr2	Yes	
Brick_Displacement	Horizontal	70.0	32.0	Hor	3.00	3.00	Pr2	Yes	
Brick_Displacement	Horizontal	242.0	33.0	Hor	1.96	1.00	Pr2	Yes	
Brick_Displacement	Horizontal	255.0	35.0	Hor	0.50	1.00	Pr2	Yes	
Brick_Displacement	Horizontal	429.0	32.0	Hor	1.00	0.50	Pr2	Yes	
Brick_Displacement	Horizontal	452.0	28.0	Hor	0.42	3.00	Pr2	No	
Brick_Displacement	Horizontal	641.0	31.0	Hor	0.88	1.00	Pr2	Yes	
Brick_Displacement	Horizontal	661.0	33.0	Hor	1.00	3.00	Pr1	Yes	
Brick_Displacement	Horizontal and Vertical	44.0	33.0	HV	2.08	1.00	Pr2	Yes	
Brick_Displacement	Horizontal and Vertical	54.0	37.0	HV	4.05	1.00	Pr2	Yes	
Brick_Displacement	Horizontal and Vertical	66.0	36.0	HV	0.05	3.00	Pr2	Yes	
Brick_Displacement	Horizontal and Vertical	660.0	37.0	HV	0.74	1.00	Pr2	Yes	
Brick_Displacement	Vertical	55.0	37.0	Vrt	0.06	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Embedment	Ferrous Embedment	79.0	27.0	Fe	N/A	N/A	Pr3	Yes	
Brick_Embedment	Ferrous Embedment	208.0	19.0	Fe	N / A	N/A	Pr3	Yes	
Brick_Embedment	Ferrous Embedment	260.0	16.0	Fe	N/A	N/A	Pr3	Yes	
Brick_Embedment	Ferrous Embedment	480.0	35.0	Fe	N/A	N/A	Pr3	Yes	
Brick_Embedment	Ferrous Embedment	1010.0	23.0	Fe	N/A	N/A	Pr3	No	
Brick_Joints	Mortar Failed	10.0	21.0	MorF	4.00	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	13.0	32.0	MorF	0.39	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	23.0	13.0	MorF	0.35	N / A	Pr2	Yes	
Brick_Joints	Mortar Failed	25.0	32.0	MorF	1.09	N/A	Pr2	No	
Brick_Joints	Mortar Failed	27.0	35.0	MorF	2.01	N / A	Pr2	Yes	
Brick_Joints	Mortar Failed	43.0	32.0	MorF	0.26	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	46.0	32.0	MorF	0.66	N/A	Pr2	No	
Brick_Joints	Mortar Failed	47.0	25.0	MorF	0.75	N / A	Pr2	No	
Brick_Joints	Mortar Failed	47.0	20.0	MorF	0.95	N / A	Pr2	Yes	
Brick_Joints	Mortar Failed	50.0	22.0	MorF	2.08	N / A	Pr2	Yes	
Brick_Joints	Mortar Failed	57.0	35.0	MorF	1.25	75.00	Pr2	Yes	
Brick_Joints	Mortar Failed	63.0	26.0	MorF	2.95	100.00	Pr2	Yes	
Brick_Joints	Mortar Failed	70.0	34.0	MorF	2.08	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	72.0	19.0	MorF	0.02	100.00	Pr2	Yes	
Brick_Joints	Mortar Failed	72.0	37.0	MorF	3.00	75.00	Pr2	Yes	
Brick_Joints	Mortar Failed	73.0	24.0	MorF	0.29	75.00	Pr2	Yes	
Brick_Joints	Mortar Failed	74.0	36.0	MorF	3.00	50.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Joints	Mortar Failed	81.0	35.0	MorF	0.41	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	83.0	37.0	MorF	3.00	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	224.0	19.0	MorF	2.00	75.00	Pr2	Yes	
Brick_Joints	Mortar Failed	406.0	33.0	MorF	0.72	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	422.0	32.0	MorF	0.50	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	430.0	29.0	MorF	0.50	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	435.0	18.0	MorF	2.31	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	435.0	35.0	MorF	1.50	50.00	Pr2	Yes	facade
Brick_Joints	Mortar Failed	438.0	18.0	MorF	0.32	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	438.0	18.0	MorF	0.50	100.00	Pr2	Yes	
Brick_Joints	Mortar Failed	440.0	19.0	MorF	0.10	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	448.0	19.0	MorF	3.34	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	448.0	29.0	MorF	1.00	100.00	Pr2	Yes	
Brick_Joints	Mortar Failed	452.0	29.0	MorF	0.76	N/A	Pr2	No	
Brick_Joints	Mortar Failed	456.0	28.0	MorF	1.87	75.00	Pr2	No	
Brick_Joints	Mortar Failed	458.0	35.0	MorF	0.19	25.00	Pr2	No	
Brick_Joints	Mortar Failed	481.0	35.0	MorF	2.81	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	483.0	19.0	MorF	1.45	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	604.0	31.0	MorF	0.32	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	606.0	18.0	MorF	0.48	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	607.0	33.0	MorF	2.22	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	615.0	20.0	MorF	0.67	50.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Joints	Mortar Failed	617.0	27.0	MorF	0.62	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	647.0	33.0	MorF	20.04	N / A	Pr2	Yes	
Brick_Joints	Mortar Failed	649.0	31.0	MorF	0.48	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	660.0	32.0	MorF	0.18	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	660.0	37.0	MorF	0.36	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	660.0	21.0	MorF	0.38	N/A	Pr2	Yes	
Brick_Joints	Mortar Failed	660.0	36.0	MorF	4.00	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	662.0	31.0	MorF	4.00	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	662.0	30.0	MorF	6.00	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	664.0	19.0	MorF	3.00	75.00	Pr2	Yes	
Brick_Joints	Mortar Failed	665.0	36.0	MorF	4.00	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	666.0	30.0	MorF	2.00	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	674.0	33.0	MorF	6.00	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	678.0	36.0	MorF	2.31	25.00	Pr2	Yes	
Brick_Joints	Mortar Failed	1005.0	31.0	MorF	22.26	50.00	Pr2	Yes	
Brick_Joints	Mortar Failed	1132.0	31.0	MorF	2.45	50.00	Pr2	No	
Brick_Joints	Mortar Missing	48.0	32.0	MorM	0.98	N / A	Pr2	Yes	
Brick_Joints	Mortar Missing	49.0	32.0	MorM	4.79	N/A	Pr2	Yes	
Brick_Joints	Mortar Missing	60.0	35.0	MorM	10.00	N/A	Pr2	Yes	
Brick_Joints	Mortar Missing	74.0	29.0	MorM	0.15	N/A	Pr2	Yes	
Brick_Joints	Mortar Missing	651.0	33.0	MorM	3.83	N/A	Pr2	Yes	
Brick_Joints	Mortar Missing	661.0	37.0	MorM	1.00	N/A	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Joints	Mortar Missing	917.0	32.0	MorM	8.03	N/A	Pr2	No	
Brick_Joints	Mortar Missing	928.0	32.0	MorM	8.05	N/A	Pr2	No	
Brick_Joints	Mortar Missing	939.0	32.0	MorM	8.26	N / A	Pr2	No	
Brick_Joints	Mortar Missing	1106.0	33.0	MorM	8.25	N/A	Pr2	No	
Brick_Joints	Mortar Removed	47.0	22.0	MorR	4.21	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	33.0	31.0	SlntF	5.94	N / A	Pr2	Yes	
Brick_Joints	Sealant Failed	36.0	26.0	SlntF	20.00	N/A	Pr2	No	
Brick_Joints	Sealant Failed	38.0	31.0	SlntF	4.03	N / A	Pr2	Yes	
Brick_Joints	Sealant Failed	43.0	17.0	SlntF	2.00	N / A	Pr2	Yes	
Brick_Joints	Sealant Failed	60.0	26.0	SlntF	20.00	N / A	Pr2	Yes	
Brick_Joints	Sealant Failed	61.0	19.0	SlntF	4.00	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	71.0	35.0	SlntF	0.74	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	278.0	17.0	SlntF	2.04	N/A	Pr2	No	
Brick_Joints	Sealant Failed	279.0	32.0	SlntF	6.00	N/A	Pr2	No	
Brick_Joints	Sealant Failed	436.0	21.0	SlntF	0.29	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	438.0	28.0	SlntF	2.00	N / A	Pr2	Yes	
Brick_Joints	Sealant Failed	449.0	21.0	SlntF	0.25	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	449.0	18.0	SlntF	25.00	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	606.0	32.0	SlntF	6.00	N/A	Pr2	No	
Brick_Joints	Sealant Failed	607.0	20.0	SlntF	3.94	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	610.0	35.0	SlntF	0.93	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	616.0	17.0	SlntF	0.51	N/A	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Joints	Sealant Failed	623.0	20.0	SlntF	0.78	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	629.0	27.0	SlntF	2.84	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	633.0	27.0	SlntF	2.32	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	660.0	37.0	SlntF	0.59	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	660.0	22.0	SlntF	0.67	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	660.0	34.0	SlntF	1.00	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	664.0	37.0	SlntF	0.85	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	912.0	20.0	SlntF	1.74	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	913.0	21.0	SlntF	0.18	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	921.0	21.0	SlntF	0.20	N/A	Pr2	No	
Brick_Joints	Sealant Failed	923.0	20.0	SlntF	0.32	N/A	Pr2	No	
Brick_Joints	Sealant Failed	1007.0	22.0	SlntF	1.47	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	1120.0	26.0	SlntF	12.25	N/A	Pr2	No	
Brick_Joints	Sealant Failed	1120.0	23.0	SlntF	10.00	N/A	Pr2	No	
Brick_Joints	Sealant Failed	1132.0	25.0	SlntF	0.38	N/A	Pr2	Yes	
Brick_Joints	Sealant Failed	1133.0	28.0	SlntF	2.85	N/A	Pr2	No	
Brick_Lintel	Surface rust	33.0	16.0	Srf	4.00	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	35.0	23.0	Srf	20.00	1.00	Pr2	Yes	
Brick_Lintel	Surface rust	37.0	17.0	Srf	4.00	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	43.0	17.0	Srf	1.90	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	49.0	32.0	Srf	4.79	1.00	Pr2	Yes	
Brick_Lintel	Surface rust	59.0	22.0	Srf	12.26	2.00	Pr2	Yes	lintel bent
Brick_Lintel	Surface rust	61.0	15.0	Srf	1.95	N/A	Pr2	Yes	
Brick_Lintel	Surface rust	83.0	17.0	Srf	4.00	0.00	Pr2	Yes	typical of

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Lintel	Surface rust	253.0	15.0	Srf	4.00	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	273.0	15.0	Srf	1.69	0.00	Pr2	Yes	Return
Brick_Lintel	Surface rust	422.0	15.0	Srf	4.00	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	437.0	14.0	Srf	2.01	0.00	Pr2	Yes	
Brick_Lintel	Surface rust	458.0	21.0	Srf	2.04	0.00	Pr2	No	
Brick_Lintel	Surface rust	607.0	32.0	Srf	6.00	0.00	Pr3	Yes	
Brick_Lintel	Surface rust	662.0	15.0	Srf	3.56	0.00	Pr2	Yes	
Brick_Repair	Patch Failed	260.0	16.0	PF	3.00	N/A	Pr2	Yes	
Brick_Repair	Patch Failed	429.0	18.0	PF	8.00	N/A	Pr2	Yes	
Brick_Repair	Patch Failed	611.0	32.0	PF	10.00	N/A	Pr2	Yes	bad repair
Brick_Repair	Replacement	265.0	23.0	Rpl	24.00	N/A		Yes	
Brick_Repair	Replacement	272.0	23.0	Rpl	32.00	N/A		Yes	
Brick_Repair	Replacement	273.0	14.0	Rpl	24.00	N/A		No	
Brick_Repair	Replacement	438.0	19.0	Rpl	16.00	N/A		Yes	
Brick_Repair	Replacement	445.0	18.0	Rpl	50.00	N/A		Yes	
Brick_Repair	Replacement	458.0	31.0	Rpl	6.11	N/A		Yes	
Brick_Repair	Replacement	459.0	25.0	Rpl	24.00	N/A		No	
Brick_Repair	Replacement	1042.0	18.0	Rpl	6.83	N/A		Yes	
Brick_Repair	Replacement	1047.0	20.0	Rpl	17.09	N/A		No	
Brick_SoilStain	Atmospheric	244.0	19.0	Atm	1.77	N/A	Pr3	Yes	
Brick_SoilStain	Atmospheric	250.0	18.0	Atm	0.79	N/A	Pr3	Yes	
Brick_SoilStain	Atmospheric	1117.0	22.0	Atm	5.19	N/A	Pr3	Yes	
Brick_SoilStain	Biological	36.0	29.0	Bio	0.36	N/A	Pr3	Yes	
Brick_SoilStain	Biological	36.0	14.0	Bio	2.11	N/A	Pr3	No	
Brick_SoilStain	Biological	37.0	21.0	Bio	0.53	N/A	Pr3	Yes	
Brick_SoilStain	Biological	51.0	21.0	Bio	0.57	N/A	Pr3	Yes	
Brick_SoilStain	Biological	57.0	22.0	Bio	0.34	N/A	Pr3	Yes	
Brick_SoilStain	Biological	62.0	34.0	Bio	5.89	N/A	Pr3	Yes	at joints
Brick_SoilStain	Biological	75.0	28.0	Bio	0.41	N/A	Pr3	Yes	
Brick_SoilStain	Biological	80.0	22.0	Bio	0.34	N/A	Pr3	Yes	
Brick_SoilStain	Biological	222.0	21.0	Bio	7.01	N/A	Pr3	Yes	
Brick_SoilStain	Biological	246.0	17.0	Bio	0.67	N/A	Pr3	Yes	
Brick_SoilStain	Biological	660.0	21.0	Bio	1.38	N/A	Pr3	Yes	
Brick_SoilStain	Bituminous	276.0	33.0	Bit	0.42	N/A	Pr3	No	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_SoilStain	Bituminous	279.0	22.0	Bit	0.42	N/A	Pr2	Yes	
Brick_SoilStain	Bituminous	280.0	34.0	Bit	0.92	N/A	Pr2	No	
Brick_SoilStain	Bituminous	431.0	20.0	Bit	1.29	N/A	Pr3	Yes	
Brick_SoilStain	Bituminous	450.0	29.0	Bit	0.77	N/A	Pr3	No	
Brick_SoilStain	Bituminous	460.0	14.0	Bit	0.37	N/A	Pr3	No	
Brick_SoilStain	Cementitious	60.0	22.0	Cem	0.91	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	36.0	33.0	Eff	0.99	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	51.0	37.0	Eff	10.69	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	61.0	33.0	Eff	5.14	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	63.0	32.0	Eff	2.22	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	72.0	32.0	Eff	1.37	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	235.0	33.0	Eff	1.55	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	239.0	33.0	Eff	1.19	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	245.0	35.0	Eff	1.18	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	249.0	17.0	Eff	3.66	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	257.0	29.0	Eff	0.96	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	269.0	17.0	Eff	4.43	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	430.0	17.0	Eff	3.46	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	436.0	17.0	Eff	34.35	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	650.0	31.0	Eff	13.12	N/A	Pr3	Yes	
Brick_SoilStain	Efflorescence	652.0	25.0	Eff	1.14	N/A	Pr3	Yes	
Brick_SoilStain	Leached Salts	78.0	28.0	Lch	0.57	N/A	Pr3	Yes	
Brick_SoilStain	Leached Salts	218.0	33.0	Lch	0.35	N/A	Pr3	Yes	
Brick_SoilStain	Leached Salts	674.0	32.0	Lch	0.11	N / A	Pr3	Yes	
Brick_SoilStain	Rust	241.0	12.0	Rst	1.72	N/A	Pr3	Yes	
Brick_SoilStain	Rust	266.0	17.0	Rst	0.49	N/A	Pr3	Yes	
Brick_SoilStain	Rust	273.0	17.0	Rst	0.27	N/A	Pr3	Yes	
Brick_SoilStain	Rust	435.0	32.0	Rst	1.00	N/A	Pr3	Yes	facade
Brick_SoilStain	Rust	480.0	34.0	Rst	0.70	N/A	Pr3	Yes	
Brick_SoilStain	Rust	671.0	26.0	Rst	0.43	N/A	Pr3	Yes	
Brick_Spall	Bonded	206.0	34.0	В	N/A	3.00	Pr2	Yes	
Brick_Spall	Bonded	448.0	21.0	В	N/A	2.00	Pr2	Yes	
Brick_Spall	Bonded	611.0	25.0	В	N/A	12.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_Spall	Bonded	1001.0	26.0	В	N/A	2.00	Pr2	Yes	
Brick_Spall	Bonded	1013.0	33.0	В	N/A	4.00	Pr2	Yes	
Brick_Spall	Bonded	1123.0	33.0	В	N/A	48.00	Pr2	Yes	
Brick_Spall	Incipient	61.0	35.0	I	N/A	2.00	Pr2	Yes	
Brick_Spall	Incipient	72.0	21.0	I	N/A	1.00	Pr2	Yes	
Brick_Spall	Incipient	74.0	21.0	I	N/A	1.00	Pr2	Yes	
Brick_Spall	Incipient	216.0	34.0	I	N/A	3.00	Pr2	Yes	
Brick_Spall	Incipient	222.0	33.0	I	N/A	2.00	Pr2	Yes	
Brick_Spall	Incipient	454.0	35.0	I	N/A	2.00	Pr2	Yes	
Brick_Spall	Incipient	676.0	35.0	I	N/A	0.50	Pr2	Yes	
Brick_Spall	Missing	54.0	28.0	M	N/A	1.00	Pr2	Yes	
Brick_Spall	Missing	61.0	32.0	M	N/A	6.00	Pr2	Yes	
Brick_Spall	Missing	72.0	28.0	M	N/A	2.00	Pr2	Yes	
Brick_Spall	Missing	83.0	35.0	M	N/A	1.00	Pr2	Yes	
Brick_Spall	Missing	230.0	30.0	M	N/A	12.00	Pr3	Yes	
Brick_Spall	Missing	238.0	34.0	M	N/A	2.00	Pr3	Yes	
Brick_Spall	Missing	422.0	33.0	M	N/A	3.00	Pr2	Yes	
Brick_Spall	Missing	639.0	32.0	M	N/A	4.00	Pr3	Yes	
Brick_Spall	Missing	1002.0	19.0	M	N/A	4.00	Pr2	Yes	
Brick_Spall	Missing	1112.0	18.0	M	N/A	2.00	Pr2	Yes	
Brick_Spall	Missing	1122.0	32.0	M	N/A	4.00	Pr2	No	
Brick_Spall	Removed	28.0	35.0	R	N/A	1.00	Pr2	Yes	
Brick_Spall	Removed	38.0	28.0	R	N/A	2.00	Pr2	Yes	
Brick_Spall	Removed	50.0	31.0	R	N/A	2.00	Pr2	Yes	
Brick_Spall	Removed	52.0	33.0	R	N/A	1.00	Pr2	Yes	
Brick_Spall	Removed	84.0	34.0	R	N/A	2.00	Pr2	Yes	
Brick_Spall	Removed	626.0	24.0	R	N/A	2.00	Pr2	Yes	
Brick_Spall	Removed	664.0	32.0	R	N/A	3.00	Pr2	Yes	
Brick_Spall	Removed	1006.0	18.0	R	N/A	4.00	Pr2	No	
Brick_Spall	Removed	1120.0	18.0	R	N/A	8.00	Pr2	No	
Brick_SurfLoss	Chipped	60.0	29.0	Chp	0.06	2.00	Pr2	Yes	
Brick_SurfLoss	Chipped	62.0	29.0	Chp	0.01	3.00	Pr3	Yes	
Brick_SurfLoss	Chipped	67.0	30.0	Chp	0.20	4.00	Pr3	Yes	
Brick_SurfLoss	Chipped	69.0	33.0	Chp	0.50	2.00	Pr2	Yes	
Brick_SurfLoss	Chipped	83.0	33.0	Chp	0.30	1.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Brick_SurfLoss	Eroded	223.0	17.0	Erd	0.46	0.50	Pr2	Yes	
Brick_SurfLoss	Eroded	922.0	26.0	Erd	14.15	0.50	Pr3	Yes	
Brick_SurfLoss	Face spalled	249.0	29.0	Fce	0.40	1.00	Pr2	Yes	
Brick_SurfLoss	Face spalled	429.0	25.0	Fce	0.50	1.00	Pr2	Yes	
Brick_Unsecured	Hollow	67.0	32.0	Н	1.50	N/A	Pr2	Yes	
Brick_Unsecured	Hollow	244.0	36.0	Н	0.12	N/A	Pr1	Yes	
Brick_Unsecured	Hollow	652.0	34.0	Н	0.16	N/A	Pr2	Yes	
Brick_Unsecured	Loose	28.0	36.0	L	0.07	N/A	Pr1	Yes	
Brick_Unsecured	Loose	281.0	35.0	L	0.05	N/A	Pr2	No	
Brick_Unsecured	Loose	406.0	34.0	L	0.14	N/A	Pr1	Yes	
Brick_Unsecured	Loose	442.0	27.0	L	0.50	N/A	Pr2	Yes	
Brick_Unsecured	Loose	455.0	19.0	L	0.60	N/A	Pr2	No	
Brick_Unsecured	Loose	660.0	37.0	L	0.92	N/A	Pr1	Yes	
Brick_Unsecured	Loose	663.0	34.0	L	1.00	N/A	Pr1	Yes	
Concrete_Coating	Coating Failed	255.0	13.0	CtF	0.38	N/A	Pr3	Yes	
Concrete_Crack	Crazing	447.0	28.0	Crz	4.00	0.50	Pr3	Yes	
Concrete_Crack	Single unit	444.0	29.0	С	0.64	1.00	Pr2	Yes	
Concrete_Crack	Single unit	445.0	29.0	С	2.00	1.00	Pr2	Yes	
Concrete_Spall	Missing	254.0	13.0	M	N/A	2.00	Pr2	Yes	
Glass_Joint	Gasket failed	662.0	29.0	GskF	0.78	N/A	Pr2	Yes	
RoofMembrane_Debonded	Debonded	443.0	17.0	Dbnd	7.82	N/A	Pr2	Yes	
RoofMembrane_Deteriorated	Crazing	669.0	19.0	Crz	18.00	N/A	Pr2	Yes	debonded
SheetMetal_Corrosion	Surface	430.0	27.0	Srf	6.00	N/A	Pr2	Yes	
SheetMetal_Corrosion	Surface	440.0	26.0	Srf	2.56	N/A	Pr2	Yes	
SheetMetal_Corrosion	Surface	456.0	17.0	Srf	0.30	N/A	Pr2	Yes	
SheetMetal_Corrosion	Surface	1002.0	23.0	Srf	0.19	N/A	Pr3	No	
SheetMetal_Corrosion	Surface	1128.0	22.0	Srf	2.28	N/A	Pr3	No	
SheetMetal_Damaged	Dented	36.0	21.0	Dnt	0.32	N/A	Pr3	Yes	
SheetMetal_Damaged	Dented	806.0	34.0	Dnt	2.32	N/A	Pr3	No	
SheetMetal_Damaged	Punctured	8.0	20.0	Pnc	0.50	N/A	Pr2	Yes	
SheetMetal_Damaged	Torn	215.0	15.0	Trn	4.91	N/A	Pr3	Yes	
SheetMetal_Seam	Sealant Failed	15.0	36.0	SlntF	0.66	N/A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	456.0	25.0	SlntF	6.57	N/A	Pr2	No	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
SheetMetal_Seam	Sealant Failed	621.0	30.0	SlntF	1.54	N/A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	624.0	27.0	SlntF	0.96	N / A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	627.0	31.0	SlntF	0.91	N / A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	677.0	17.0	SlntF	0.86	N/A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	1042.0	35.0	SlntF	14.91	N/A	Pr2	No	
SheetMetal_Seam	Sealant Failed	1046.0	33.0	SlntF	3.20	N/A	Pr2	Yes	
SheetMetal_Seam	Sealant Failed	1109.0	16.0	SlntF	0.65	N/A	Pr2	No	
SheetMetal_Seam	Sealant Failed	1128.0	23.0	SlntF	3.33	N/A	Pr2	No	
SheetMetal_Seam	Sealant Failed	1141.0	19.0	SlntF	0.93	N / A	Pr2	No	
SheetMetal_Seam	Solder Failed	607.0	20.0	SldF	3.86	N/A	Pr2	Yes	
SheetMetal_Unsecured	Loose	628.0	13.0	L	3.48	N/A	Pr3	Yes	Window screen loose
SheetMetal_Unsecured	Loose	673.0	19.0	L	1.06	N/A	Pr2	Yes	
Stone_Coating	Coating Failed	52.0	13.0	CtF	9.00	N/A	Pr3	Yes	
Stone_Crack	Repair failed	83.0	15.0	CRprF	2.00	N/A	Pr2	Yes	
Stone_Crack	Repair failed	266.0	14.0	CRprF	1.00	1.00	Pr2	Yes	
Stone_Crack	Single unit	26.0	13.0	С	0.70	0.00	Pr2	Yes	
Stone_Crack	Single unit	74.0	14.0	C	3.00	4.00	Pr2	Yes	
Stone_Crack	Single unit	212.0	16.0	C	1.00	1.00	Pr2	Yes	
Stone_Crack	Single unit	251.0	16.0	C	2.00	1.00	Pr2	Yes	multiple
Stone_Crack	Single unit	255.0	15.0	C	0.74	1.00	Pr2	Yes	
Stone_Crack	Single unit	608.0	12.0	C	0.40	1.00	Pr2	Yes	
Stone_Crack	Single unit	616.0	13.0	С	0.66	0.50	Pr2	Yes	
Stone_Crack	System units and joints	270.0	14.0	CUJ	0.45	1.00	Pr2	Yes	
Stone_Embedment	Ferrous Embedment	52.0	12.0	Fe	N/A	N/A	Pr3	Yes	
Stone_Joints	Mortar Failed	66.0	35.0	MorF	2.72	50.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Stone_Joints	Sealant Failed	8.0	13.0	SlntF	0.90	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	23.0	13.0	SlntF	0.68	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	28.0	13.0	SlntF	0.32	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	32.0	13.0	SlntF	1.10	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	44.0	13.0	SlntF	0.68	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	47.0	13.0	SlntF	1.64	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	59.0	13.0	SlntF	3.00	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	76.0	14.0	SlntF	2.00	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	257.0	13.0	SlntF	0.32	N / A	Pr2	Yes	
Stone_Joints	Sealant Failed	262.0	13.0	SlntF	8.00	N / A	Pr2	Yes	
Stone_Joints	Sealant Failed	436.0	14.0	SlntF	1.50	N / A	Pr2	Yes	typical of 14
Stone_Joints	Sealant Failed	465.0	13.0	SlntF	1.47	N / A	Pr2	Yes	
Stone_Joints	Sealant Failed	469.0	13.0	SlntF	1.05	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	472.0	13.0	SlntF	1.04	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	477.0	13.0	SlntF	0.73	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	481.0	12.0	SlntF	0.84	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	617.0	12.0	SlntF	0.84	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	630.0	13.0	SlntF	0.63	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	636.0	13.0	SlntF	1.00	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	645.0	12.0	SlntF	0.54	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	650.0	12.0	SlntF	0.58	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	655.0	11.0	SlntF	0.90	N/A	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Stone_Joints	Sealant Failed	660.0	14.0	SlntF	0.95	N/A	Pr2	Yes	
Stone_Joints	Sealant Failed	664.0	14.0	SlntF	0.95	N/A	Pr2	No	
Stone_Joints	Sealant Failed	679.0	13.0	SlntF	0.80	N / A	Pr2	Yes	
Stone_Repair	Patch Failed	439.0	13.0	PF	4.00	N/A	Pr2	Yes	
Stone_Repair	Patch Failed	444.0	12.0	PF	3.00	N/A	Pr2	Yes	
Stone_Repair	Patch Failed	647.0	13.0	PF	15.00	N/A	Pr2	Yes	
Stone_Repair	Patch Failed	651.0	13.0	PF	14.00	N/A	Pr2	Yes	
Stone_SoilStain	Biological	11.0	13.0	Bio	10.00	N/A	Pr3	Yes	
Stone_SoilStain	Biological	24.0	12.0	Bio	15.97	N/A	Pr3	Yes	
Stone_SoilStain	Biological	61.0	12.0	Bio	19.01	N/A	Pr3	Yes	
Stone_SoilStain	Biological	76.0	13.0	Bio	16.70	N/A	Pr3	Yes	
Stone_SoilStain	Biological	88.0	13.0	Bio	5.33	N/A	Pr3	Yes	
Stone_SoilStain	Biological	218.0	14.0	Bio	3.19	N/A	Pr3	Yes	
Stone_SoilStain	Biological	241.0	13.0	Bio	12.18	N/A	Pr3	Yes	
Stone_SoilStain	Biological	246.0	14.0	Bio	1.59	N/A	Pr3	Yes	
Stone_SoilStain	Biological	278.0	13.0	Bio	0.80	N/A	Pr3	No	
Stone_SoilStain	Biological	426.0	13.0	Bio	6.90	N/A	Pr3	Yes	
Stone_SoilStain	Biological	653.0	12.0	Bio	11.38	N/A	Pr3	Yes	
Stone_SoilStain	Biological	659.0	15.0	Bio	0.50	N/A	Pr3	Yes	
Stone_SoilStain	Biological	673.0	13.0	Bio	20.00	N/A	Pr3	Yes	
Stone_SoilStain	Efflorescence	51.0	20.0	Eff	1.66	N/A	Pr3	Yes	
Stone_Spall	Missing	56.0	14.0	M	N/A	48.00	Pr2	Yes	
Stone_SurfLoss	Delaminated	469.0	14.0	Dlm	0.42	N/A	Pr2	Yes	
Stone_SurfLoss	Delaminated	474.0	13.0	Dlm	0.59	3.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	11.0	16.0	Exf	10.00	1.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	35.0	13.0	Exf	0.29	1.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	45.0	12.0	Exf	1.06	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	49.0	20.0	Exf	6.51	0.50	Pr2	Yes	
Stone_SurfLoss	Exfoliated	53.0	14.0	Exf	5.00	3.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	56.0	12.0	Exf	6.00	3.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	63.0	13.0	Exf	3.00	2.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	65.0	13.0	Exf	0.50	1.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	78.0	12.0	Exf	3.00	2.00	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Stone_SurfLoss	Exfoliated	83.0	12.0	Exf	3.00	2.00	Pr2	No	
Stone_SurfLoss	Exfoliated	87.0	15.0	Exf	6.31	0.50	Pr2	Yes	
Stone_SurfLoss	Exfoliated	207.0	15.0	Exf	5.91	0.50	Pr2	Yes	
Stone_SurfLoss	Exfoliated	237.0	13.0	Exf	1.43	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	280.0	13.0	Exf	0.05	1.00	Pr2	No	
Stone_SurfLoss	Exfoliated	409.0	12.0	Exf	2.40	3.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	416.0	13.0	Exf	3.02	2.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	423.0	15.0	Exf	8.91	0.50	Pr2	Yes	
Stone_SurfLoss	Exfoliated	443.0	14.0	Exf	10.02	0.50	Pr2	Yes	
Stone_SurfLoss	Exfoliated	464.0	12.0	Exf	1.19	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	466.0	12.0	Exf	0.55	2.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	468.0	12.0	Exf	0.52	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	472.0	13.0	Exf	0.78	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	475.0	13.0	Exf	0.63	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	478.0	13.0	Exf	0.73	2.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	482.0	13.0	Exf	2.39	1.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	643.0	12.0	Exf	1.10	2.00	Pr3	Yes	
Stone_SurfLoss	Exfoliated	661.0	13.0	Exf	3.00	1.00	Pr2	Yes	
Stone_SurfLoss	Exfoliated	677.0	14.0	Exf	20.00	0.50	Pr2	Yes	
Stucco_Coating	Coating Failed	811.0	20.0	CtF	0.28	N/A	Pr2	Yes	
Stucco_Coating	Coating Failed	823.0	18.0	CtF	0.23	N/A	Pr3	Yes	
Stucco_Coating	Coating Failed	841.0	18.0	CtF	7.31	N/A	Pr3	Yes	
Stucco_Coating	Coating Sound	818.0	21.0	Ct	9.72	N/A	Pr3	No	uneven
Stucco_Crack	Crack	805.0	28.0	С	0.96	0.50	Pr2	No	
Stucco_Crack	Crack	810.0	20.0	С	2.36	0.00	Pr3	Yes	cracks painted over
Stucco_Crack	Crack	812.0	28.0	С	13.27	0.50	Pr3	Yes	
Stucco_Crack	Crack	815.0	19.0	С	1.68	1.00	Pr2	No	
Stucco_Crack	Crack	818.0	29.0	С	3.89	0.00	Pr3	Yes	cracks painted over
Stucco_Crack	Crack	829.0	29.0	С	1.83	0.50	Pr2	No	
Stucco_Crack	Crack	831.0	19.0	С	1.37	0.50	Pr2	Yes	

Block	Condition	X	Y	Code	Amount	Severity	Priority	Photo	Note
Stucco_Crack	Crack	841.0	24.0	С	13.79	0.00	Pr3	No	cracks painted over
Stucco_Crack	Crack	849.0	24.0	С	13.36	0.50	Pr2	Yes	
Stucco_Crack	Crack	914.0	28.0	С	1.67	0.00	Pr3	No	
Stucco_Joint	Sealant Failed	431.0	23.0	SlntF	5.29	N/A	Pr2	Yes	
Wood_Deteriorated	Weathered	428.0	27.0	Wthr	0.20	N/A	Pr3	Yes	

Key to TPAS Codes Tablet PC Annotation System®



Vertical Access LLC PO Box 4135, Ithaca, NY 14852 Tel: 607 257 4049 / Fax: 607 257 2129



TPAS®, the Tablet PC Annotation System, utilizes a combination of graphical and text symbols to represent conditions. Each annotation includes a block, which is a pre-defined group of text and symbols containing data fields. The library of condition blocks for each building material includes one color-coded block for each general class of conditions. Within each class of conditions, there may be several sub-classes or specific conditions. Not all sub-classes apply to all materials. See Vertical Access' Conditions Glossary (http://www.vertical-access.com/glossary.html) for definitions of terminology and photographs illustrating each specific condition.

The classes and subclasses of conditions represented in the standard TPAS block libraries are shown in the table below.

Class of Condition	Subclass	Code	Materials
Biological Growth	Fungi	Fng	Wood
	Lower Plants	PlntLo	Wood
	Higher Plants	PlntHi	Wood
Coating	Coating Sound	Ct	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
	Coating Failed	CtF	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
Connection	Fastener Failed	FstF	Metals
	Flange Failed	FlF	Metals
	Weld Failed	WldF	Metals

Class of Condition	Subclass	Code	Materials
Corrosion	Fastener Rusted	FstRst	Metals
	Surface Corrosion	Srf	Metals
	Pitted Corrosion	Pit	Metals
	Perforated Corrosion	Prf	Metals
Crack/Checked	Crack	С	Metals, Glass, Plaster, Stucco, Wood
	Checked	Chk	Wood
	Crazing	Crz	Masonry
	Single Unit	С	Masonry
	System Units	CU	Masonry
	System Joints	CJ	Masonry
	System Units & Joints	CUJ	Masonry
	Repair Sound	CRpr	Plaster, Stucco, Masonry
	Repair Failed	CRprF	Plaster, Stucco, Masonry
	Repair Removed	CRprR	Plaster, Stucco, Masonry
Damaged	Bent	Bnt	Metals
	Dented	Dnt	Metals
	Punctured	Pnc	Membrane Roof, Metals
	Torn	Trn	Membrane Roof, Metals
Damage/Infestation	Insect	Ins	Wood
	Mammal	Mam	Wood
Debonded	Debonded	Dbnd	Membrane Roof
	Debonded + Water	DbndW	Membrane Roof
	Blister	Bls	Membrane Roof
Deteriorated	Abraded	Abr	Wood

Class of Condition	Subclass	Code	Materials
	Crack	С	Membrane Roof
	Crazing	Crz	Membrane Roof
	Rotten	Rot	Wood
	Weathered	Wthr	Wood
Displacement	Horizontal	Hor	Masonry
	Vertical	Ver	Masonry
	Horizontal & Vertical	HV	Masonry
	Bulge	Blg	Glass
Embedment	Ferrous	Fe	Stucco, Masonry
	Aluminum	Al	Stucco, Masonry
	Copper	Cu	Stucco, Masonry
	Wood	Wood	Stucco, Masonry
	Plastic	Pls	Stucco, Masonry
	Other	Otr	Stucco, Masonry
Lath	Lath Failed	LthF	Plaster, Stucco
Lintels Rusted	Surface Rust	Srf	Masonry
	Pack Rust	Pck	Masonry
Seams and Joints	Mortar Caulked	MorClk	Masonry
	Mortar Caulked Failed	MorClkF	Masonry
	Mortar Failed	MorF	Masonry
	Mortar Missing	MorM	Masonry
	Mortar Removed	MorR	Masonry
	Sealant Failed	SlntF	Glass, Plaster, Stucco, Masonry, Metals, Wood
	Ornament Joint Failed	OrnJtF	Plaster

Class of Condition	Subclass	Code	Materials
	Panel Joint Failed	PnlJtF	Plaster
	Putty Failed	PtyF	Glass
	Gasket Failed	GskF	Glass
	Insulated Glazing Unit Failed	IGUF	Glass
	Fastener Failed	FstF	Membrane Roof, Metals
	Folded Seam Failed	FldF	Metals
	Seam Failed	SmF	Membrane Roof
	Solder Failed	SldF	Metals
Previous Repairs	Dutchman Sound	D	Masonry, Wood
	Dutchman Failed	DF	Masonry, Wood
	Dutchman Removed	DR	Masonry, Wood
	Patch Sound	P	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
	Patch Failed	PF	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
	Patch Removed	PR	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
	Replacement	Rpl	Plaster, Stucco, Masonry, Membrane Roof, Metals, Wood
	Consolidation Sound	Con	Plaster, Stucco
	Consolidation Failed	ConF	Plaster, Stucco
	Stabilization Sound	Stb	Plaster, Stucco
	Stabilization Failed	StbF	Plaster, Stucco
Soiled or Stained	Atmospheric	Atm	Plaster, Stucco, Masonry, Membrane Roof
	Biological	Bio	Plaster, Stucco, Masonry

Class of Condition	Subclass	Code	Materials
	Bituminous	Bit	Plaster, Stucco, Masonry, Membrane Roof, Wood
	Black Crusts	Blck	Masonry
	Cementitious	Cem	Stucco, Masonry, Membrane Roof, Wood
	Copper	Cpr	Plaster, Stucco, Masonry, Membrane Roof
	Efflorescence	Eff	Stucco, Masonry
	Guano	Gua	Plaster, Stucco, Masonry, Membrane Roof, Wood
	Leached Salts	Lch	Stucco, Masonry
	Paint	Pnt	Plaster, Stucco, Masonry, Membrane Roof, Wood
	Rust	Rst	Plaster, Stucco, Masonry, Membrane Roof, Wood
Spalls	Bonded	В	Masonry
	Incipient	I	Masonry
	Missing	M	Masonry
	Missing + Steel	MS	Masonry
	Removed	R	Masonry
	Removed + Steel	RS	Masonry
	Hazardous	Haz	Masonry
Surface Loss	Chipped	Chp	Masonry
	Delaminated	Dlm	Masonry
	Eroded	Erd	Masonry
	Exfoliated	Exf	Masonry
	Face Spalled	Fce	Masonry
	Friable	Fri	Masonry

Class of Condition	Subclass	Code	Materials
	Glaze Loss	Glz	Masonry
Unsecured	Fastener Failed	FstF	Wood
	Hazardous	Haz	Glass, Plaster, Stucco, Metals, Masonry, Wood
	Hollow	Н	Plaster, Stucco, Masonry
	Loose	L	Glass, Plaster, Stucco, Metals, Masonry, Wood
	Missing	M	Glass, Plaster, Stucco, Metals, Masonry, Wood
	Removed	R	Glass, Plaster, Stucco, Metals, Masonry, Wood
Water Damage	Water Damage	WDmg	Plaster
Water Stain	Water Stain	WStn	Plaster





TPAS Users' ManualTablet PC Annotation System (TPAS®)

Updated March 2022

Quick Start

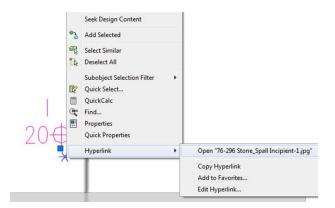
The Tablet PC Annotation System (TPAS®) allows direct input of both visual and numerical survey data into an AutoCAD drawing during investigations of buildings and other structures. The annotated drawings are delivered in digital formats: PDF files AutoCAD DWG files. Survey photographs are delivered digitally (printed drawings and photographs are available upon request). The most efficient way to view the survey photographs is to open them directly from the AutoCAD drawing; if AutoCAD is not available, it is also possible to reference printed or digital photographs from the printed or PDF drawing. Both methods are discussed below.

Open digital photographs using the AutoCAD hyperlinks

Survey photographs can be opened and viewed from within the AutoCAD drawing using the hyperlinks, which appear as blue asterisks. Note that some observations may not be photographed. Before using the hyperlinks for the first time (and each time the digital files are transferred to a new computer or the file folders are renamed) you must edit the HYPERLINKBASE setting in order for AutoCAD to be able to locate the hyperlinked photographs.

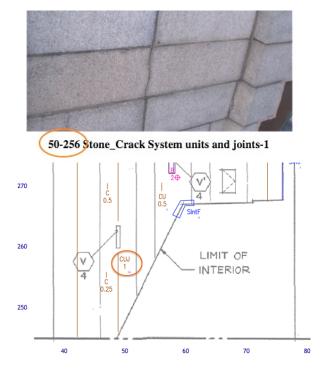
- 1. Make sure that all of the hyperlinked photos are in a single folder in the computer.
- 2. Type HYPERLINKBASE at the AutoCAD command line, and hit enter.
- 3. Open the folder containing the hyperlinked photos and copy the folder's file path from the Windows "Address Bar."
- 4. Paste the folder's file path into the command line, and hit enter. (Standard Windows file names must be less than 260 characters).

In recent versions of AutoCAD, CTRL + click on the hyperlink to open the photograph. In older versions, select the link, then right-click anywhere in the drawing. Choose *Hyperlink* at the bottom of the drop-down menu, then choose *Open "filename.jpg.*"



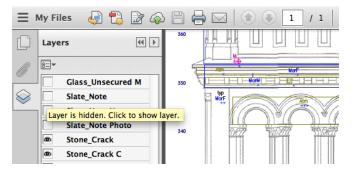
Use X-Y coordinates to match photographs to condition locations

Each survey photograph is named with a unique coordinate (not necessarily the beginning of the photo name) corresponding to its location on the drawing. Photo locations are referenced by their X-Y coordinates within the report narrative. If AutoCAD is not available, use the X-Y coordinates to match annotated conditions on the drawings to the corresponding photographs.



Manage layers in the PDF drawing for selective viewing and printing

All of the TPAS annotations are grouped together on layers named for each material and condition, and these layers can be turned on and off for ease of viewing. Open the PDF drawing in Adobe Reader to access the layer management panel. Print additional copies of the drawing showing only the selected layers, if desired. The PDF drawings may be printed full-size (typically 24" x 36") or reduced (CTB files are included to print at 11" x 17" with more legible line weights).



View AutoCAD drawings with raster background images

Raster images - taken from PDFs, JPEGs, or other file formats - are sometimes used as background references for TPAS drawings in AutoCAD. In order for the background to appear in the AutoCAD drawing, the referenced file must be stored in the same folder as the AutoCAD drawing (if there are many images, they may be stored in a 'photographs' subfolder). The referenced file(s) is (are) included with the deliverables.

Open hyperlinks in the PDF drawing to view associated photographs

Survey photographs can be opened and viewed from within the PDF drawing using the hyperlinks, which appear as blue asterisks. Not all observations are photographed. Before using the hyperlinks for the first time (and each time digital files are transferred to a new computer or the file folders are renamed) you must download Adobe Acrobat Reader DC and maintain the file directory structure.

- 1. Download Adobe Acrobat Reader (free download) and follow the prompts to install.
- 2. Download the Photographs folder associated with the drawings you wish to view in its entirety. Place this folder on a local machine, avoiding server/shared storage if possible.
- 3. Drag the drawing PDF into the Photographs folder and open the drawing PDF with Adobe Acrobat Reader DC.
- 4. Click on the asterisk (*) symbol below the condition you wish to view.
- 5. In the popup window select "Allow" then "Okay" and the photograph will open.

AutoCAD Features

This section addresses more advanced digital analysis of the TPAS survey data, for users familiar with basic AutoCAD features including model and paper space, layers, and blocks.

Print AutoCAD drawings

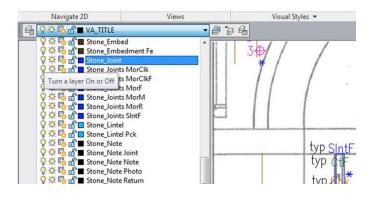
As-delivered printed drawings can be reproduced from the AutoCAD DWG file. All TPAS annotations are created in model space with a 9" text height, in order to plot at 3/32" in a 1/8" = 1' drawing view.

TPAS drawings are plotted, or printed, from paper space layouts. Title block information and drawing keys are present directly in paper space—no external references are used. The x-y coordinates shown on the paper drawings are model space data visible through veiwports.

Manage layers in AutoCAD

All of the TPAS annotations are grouped together on layers named for each material and condition, and these layers can be turned on and off for ease of viewing. Photo hyperlinks are on the same layer as the condition with which they are associated.

Use the AutoCAD Layer Manager to turn layers on and off, and to freeze and thaw layers: use the LAYER command, choose Layer from the Format menu, or click the layer button on the Object Properties Toolbar.



In paper space, the "Current VP Freeze" option becomes available in the Layer Manager. This allows each viewport to have its own freeze/thaw layer settings, allowing the user to present multiple combinations of layers on a single print layout.

To freeze or thaw layers in a paper space viewport:

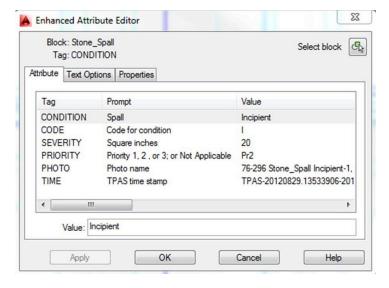
- 1. Select the viewport.
- 2. Set the viewport to Model by clicking the Model/Paper button at the bottom of the AutoCAD window (or by double clicking anywhere within the viewport boundaries).
- 3. Open the Layer Manager.
- 4. Use the "Current VP Freeze" column to freeze or thaw layers within the current viewport.

View and edit conditions data recorded in block attributes

All TPAS annotations consist of *blocks* - pre-drawn and reusable graphical symbols that represent distinct material conditions. *Block attributes* are text labels that add descriptive information to a block. During the investigation, quantitative data about survey conditions (e.g. crack widths or areas of soiling) are entered as block attributes.

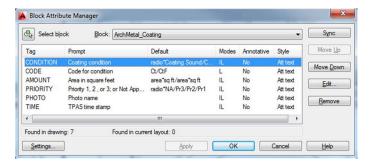
Standard TPAS blocks contain twelve attributes: Condition, Code, Amount, Severity, Priority, Repair, Note, Typical, Return, Photo, Date, and Time. All blocks contain the Condition, Code, Photo, and Time attributes; all others are optional. In cases of observations that are not photographed, the Photo attribute will be blank.

It is possible to add custom attributes to standard blocks, or to create entire custom blocks. For clarity, typically only the Code and Severity attributes are visible in the drawing; all others are set in Invisible Mode and do not print or appear in model or paper space. To view and/or edit a block's attributes, open the Enhanced Attribute Editor command by typing EATTEDIT into the command line (from the Ribbon: Home tab>Block Panel>Edit Attributes, from the menubar: Modify>Object>Attribute> Single, from the Modify II toolbar, from double-click: enter DBLCLKEDIT on the command line and change the value to 1).



The Enhanced Attribute Editor can only access and edit an individual block reference and therefore will not affect block definitions. Attributes in Invisible Mode do appear in the editor, and are available for editing.

Global changes to blocks with attributes are made with the Block Editor, which accesses and edits block definitions. Launch the Block Editor from the command line—BEDIT, from the Ribbon: Home tab>Block panel>Block Editor, from the menubar: Tools>Block Editor or from the Modify II toolbar.



The Block Editor is not available in AutoCAD 2000/2002 or 2004. In those versions, use the Block Attribute Manager, which is launched from the command line—BATTMAN, the Modify menu: Modify>Object>Attribute>Block Attribute Manager or the Modify II toolbar.

Both methods are available in recent releases of AutoCAD. For in depth guidance, refer to the AutoCAD Help documentation.

Extract survey data from block attributes

Survey data in the form of block attributes can be exported to a spreadsheet or database application, in several file formats depending on the version of AutoCAD in which the extraction is performed.

For the purposes of survey annotations, the information extracted includes block names, X-Y insertion coordinates, and block attribute values. Use the commands ATTOUT (most efficient method,) DATAEXTRACTION or ATTEXT to extract block attribute values and other information

The process of extracting data varies substantially among various AutoCAD releases. Refer to the AutoCAD Help documentation for specific capabilities and procedures.