WINDOW EVALUATION

FOR

655 NORTH GAYLORD STREET
DENVER, CO 80206

PREPARED FOR:

PATRICK CASHEN ARCHITECT
4155 EAST JEWELL AVENUE #1106
DENVER, CO 80222

PREPARED BY:

PHILLIP BARLOW
HISTORIC PRESERVATION SPECIALIST
BARLOW CULTURAL RESOURCE CONSULTING LLC
4576 TANGLEWOOD TRAIL
BOULDER, CO 80301

EVALUATION DATE: AUGUST 13, 2019
Summary of Findings:
Located in the East Seventh Avenue historic district, 655 N. Gaylord Street was built ca. 1909 as a residential home and has elements that are characteristic of the Tudor Revival style. Prominent features include a two-and-one-half story height, brick construction, gable front with half-timbering and stucco above the second story, and exposed rafter tails. The home has a full-width front porch with brick columns with paired brackets supporting the roof.

Alterations made to the home include the enclosure of the porch at some point and the conversion of the porch into conditioned interior space. Although the windows on the enclosed porch are older, with mortise and tenon joinery and single-pane cylinder glass, as they are not original to the building it is difficult to definitively establish their age. Evidence to support the statement that the porch was not originally enclosed is seen on the exterior facade of the porch, as there are floor drains that have since been closed as they are no longer needed. In addition, other homes of similar style along this block still retain their open porch design.

This survey only addresses the three windows that enclose the front porch. All of the other windows in the home aside from a few decorative leaded glass windows have already been replaced. No other windows were surveyed as the homeowner indicated that the porch windows are the extent of the replacement request.
The porch windows were each designed to operate as horizontal sliders. The two windows on the ends of the porch have two twenty-lite sash and the central street-facing window has three thirty-five-lite sash. The sliding system consists of a protruding bead at the top of the jamb that interfaces with a rabbet at the top rail of the sash. The bottom track consists of "T-rail" weatherstripping laid horizontally to provide a bead that interfaces with a second rabbet on the bottom rail of each sash.
Each of the windows exhibit typical conditions associated with condensation on the interior face of the glass, specifically peeling paint on the horizontal members of the muntins.

![Image 5: Window 1-2. Paint failure likely attributable to condensation](image)

Each window has been caulked closed, preventing evaluation of operation. Based on the manner in which the track system was constructed it would likely be difficult to operate sash of this size without effort due to the friction generated along the bottom rail.

Perimeter caulk on the exterior has deteriorated in some areas but is primarily sound. Glazing putty is in good condition. No significant rot was noted.
The following is the process necessary to return the original windows to functional condition:

**Wood Double-Hung, Casement, and Fixed Windows**

**On-Site Method of Procedure**

**Window Sash Removal:**
1.) When required per EPA regulations, place poly-sheeting on the floor at the work area to collect any dust or debris created during the sash removal process. The sheeting will extend 10 feet from the window opening towards the interior of the room and 6 feet on either side of the opening. If these minimum distances cannot be achieved, the sheeting will extend as far as possible into the room as well as side to side in front of the window opening.
2.) Remove the left and right sash from the opening by removing the hinge pins or by unscrewing the hinge from the jamb.
4.) Number each sash for each opening according to the window schedule using a “Sharpie” to write the corresponding number on the unfinished side of the stile of each sash. Where multiple sashes are present in one opening, a dash (-) followed by a sequential numbering system will be used. For example; a window opening designated 236C has 4 total sashes. There are two upper sashes and two lower sashes. As viewed from the interior, if sash removal will begin in the lower left hand corner of the opening: The lower left hand sash will be labeled 236C-1, the upper left hand sash will be labeled 236C-2, the lower right hand sash will be labeled 236C-3, and the upper right hand sash will be labeled 236C-4. This system will be utilized in the same order where transom windows are present. The interior stop will be labeled with 236C and differentiated by an “L,” “C,” or “R” to designate its original location (Left, Center, or Right). The parting stop is not typically labeled or restored as it is most often time damaged beyond repair during the removal process and new parting stop will be fabricated to match the existing for every opening.
5.) When required per EPA regulations, bag or wrap all components; including sash, interior stop, parting stop and trash in heavy duty poly-sheeting or poly-bags to assure containment of any dust or debris during transport.
6.) When required per EPA regulations, cleaning verification will be provided following a thorough cleaning of the area using damp wipes and/or HEPA vacuums; including, but not limited to, all sills, stools, floors, weight pockets, poly-bags and poly-sheeting.

**Installation of Temporary Enclosures:**
1.) The material selected for use as the temporary enclosure, “Verolite” or similar, will be cut to fit inside the existing opening whenever possible. If not specified, plywood or OSB will be utilized. When required, the perimeter of the Verolite, plywood, or OSB will be wrapped in foam tape in an effort to create the most effective weather seal possible. The wood backing for this will be screwed to the existing frame where the interior stop and/or parting stop was located. The screw holes created will be hidden by the interior stop or parting stop upon reinstallation of the restored components and causes little to no damage to the frame. The verolite will then be attached to this backing material utilizing screws.

**Existing Frame Restoration:**
1.) Loose and Flaking or failed paint is removed following the National Park Service Preservation Brief number 10. A “wet method” utilizing chemical strippers, carbide scrapers, or HEPA approved mechanical sanders (or a combination of all three) will ensure that no lead based paint dust is created. Following the paint stripping process, a thorough visual and tactile examination of the existing wood substrate will be performed.
2.) If there are any pieces or components that have shifted or become loose on the frame, counter-sunk
coated screws and/or galvanized brad nails will be utilized to restore the integrity of the components.

3.) If it is determined that the existing substrate is beyond repair through the use of epoxy, the deteriorated wood will be “cut” out of the existing frame and a replacement piece fabricated to replicate the removed component, commonly referred to as a “Dutchman,” will be installed in its place. After all of the Dutchmen have been installed, epoxy will be utilized to make any other repairs that are deemed necessary.

4.) When the epoxy has dried, it will be sanded to shape. A thorough review by our staff will determine if any additional epoxy consolidate is required.

5.) All window frame components will then be primed, and an additional review completed to ensure that we have achieved the acceptable criteria set forth by the “Mock-up Review.” If more consolidation is deemed necessary, the primer at that location will be removed and steps 5-7 will be repeated.

6.) A modified polyurethane sealant will then be applied to any and all areas that require it. The sealant will either be color matched and/or paintable. It will be a low-modulus elastomeric product.

7.) A minimum of two finish coats of paint will then be applied and given ample drying time before the restored sash will be installed.

Sash Installation:

1.) The sash will be delivered pre-finished to site and will be installed per the plans and specifications. Depending on the specifications, metal interlocking weather stripping will be utilized in conjunction with compression bulb weatherstripping for casement sash. The sashes are installed in a manner which attempts to balance the ease of operation while still maintaining the best possible seal against air infiltration.

2.) The locking hardware will then be installed.

3.) All necessary caulking and paint touch up will be performed after installation to provide a clean and seamless finished product.

4.) After the owner and architect have reviewed the finished product, all necessary punch-list items will be corrected.

Off-site Method of Procedure

Receiving Sash:

1.) When the sashes and interior stop arrive at the “Shop” the window designation numbers are “stamped” into the sash at the same location. This is to ensure that the number is not inadvertently removed during the restoration process.

Glazing Putty, Glass Removal, and Glass Cleaning:

1.) Steam ovens are utilized to soften the historic glazing putty and all existing putty is removed. This ensures a wet method technique that is non-invasive and is the best method to avoid breakage of the glass during this process.

2.) When the glass has been removed, the corresponding sash number is written on a piece of tape and applied to the surface of the glass.

3.) This number will be removed temporarily when the glass is cleaned, but will be reattached after the cleaning is complete. Typical glass cleaners such as Windex are utilized. All glass that can be reused will be reused. Existing scratches on the glass that were not created during the removal or cleaning process will not dictate replacement of the glass unless directed by the architect and/or owner.

4.) When the sash has completed the restoration process in the shop, the original piece of glass will be installed in the same location from which it came.
**Sash Restoration:**
1.) All sashes, after they have been stripped, are re-squared prior to applying epoxy consolidates. This is achieved by clamping the sash and when 90 degree internal angles are achieved, dowels are utilized to maintain the shape.
2.) Before the glass is set and bedded, and after the sanding of the epoxy is completed, the glazing rabbit is primed.
3.) After sanding the epoxy consolidates, kerfs are cut for future installation of the bulb seal and, when specified, t-rail weather stripping.

**Sash Replication:**
1.) Where window sash are missing the jambs are carefully measured, including the diagonals to allow for adjustments for out-of-square openings and with careful notation of hinge and hardware location.
2.) Lumber is selected to match the existing wood, with care being taken regarding grain direction to prevent warping or twisting.
3.) Using the existing sash as a template, new sash are constructed mimicking the stile and rail dimensions, joinery details, and profiles
4.) Once constructed, the replica sash join the restored sash at the sanding phase and continue through the same steps in the Glazing and Painting and Staining processes.

**Interior Stop Restoration:**
1.) This process is similar to the Existing Frame Restoration section but may include some new fabrication to replace pieces which were damaged beyond repair during the sash removal process.

**Parting Stop Fabrication:**
1.) All parting stop will be fabricated to match existing and will be prefinished in the shop prior to installation on-site.

**Glazing Process:**
1.) Dap Glazing compound is applied to the glazing rabbit and the glass is installed using push points when traditional glazing putty is utilized. Push points are not used when glass stops (wood or other) are utilized.
2.) The residual Dap compound that “oozes” out is cleaned from the glass and wood sash surfaces.
3.) When the Dap has “set-up” Glazing putty or wood glass stop is applied.
4.) The sash is then placed vertically in a drying rack.
5.) Depending on the type of glazing compound utilized, dry time can range from a little as a few days to as long as 6 weeks.

**Painting and Staining Process:**
1.) The sashes are masked to protect the glass but still allow the finish paint to extend very slightly beyond the glazing bed to create a seal.
2.) They are transferred to painting racks, and the primer and two finish coats are applied with an airless or a HVLP paint sprayer.
3.) When the finish coat is dry, the masking is removed, the bulb seal installed, glass cleaned, and the sash delivered to the site for installation.
Thank you for the opportunity to visit this property. If you have any questions or comments please contact me at 303-746-1602, or barlowpl@gmail.com

Regards,

Phillip Barlow, Owner

Enclosed Materials:
- Labeled Elevations
- Window Evaluation Matrix
- Photo Documentation
<table>
<thead>
<tr>
<th>Location</th>
<th>Opening Number</th>
<th>Description/Notes</th>
<th>Operation</th>
<th>Material</th>
<th>Sill</th>
<th>Jamb</th>
<th>Exterior trim &amp; stops</th>
<th>Stool</th>
<th>Interior trim &amp; stops</th>
<th>Interior wall surfaces</th>
<th>Lowest Rail</th>
<th>Other rails &amp; mullions</th>
<th>Mullions and muntions</th>
<th>Meeting Rails</th>
<th>Glazing putty &amp; gaskets</th>
<th>Operators &amp; handles</th>
<th>Movement Mechanics</th>
<th>Locks</th>
<th>Square</th>
<th>Weatherstripping</th>
<th>Operation Impaired?</th>
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<tbody>
<tr>
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<td>1-1</td>
<td>5' 4 1/2&quot; x 5' 3 3/4&quot; overall</td>
<td>HS</td>
<td>W</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>W</td>
<td>2</td>
<td>1</td>
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<td>Y</td>
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</tbody>
</table>

**KEY**

**FRAME/SASH/FUNCT**
3- Advanc. Deterior.
2- Unstable
1- Maintenance Req.
0- Excellent

**MATERIAL**
S- Steel
W- Wood
A- Aluminum
O- Other
GB- Glass Block

**OPERATION**
SH- Single hung
DH- Double hung
C- Casement
HS- Horizontal Slider
FX- Fixed
O- Other

**MISC.**
PS- Painted Shut
UPS- Upper painted shut
REYNOLDS RESIDENCE
655 N GAYLORD ST
DENVER, COLORADO

PATRICK CASHEN ARCHITECT
4155 EAST JEWELL AVENUE # 1106
DENVER, COLORADO 80222-4516
303.759.0650
pc@cashenarchitect.com

SEPTEMBER 9, 2019
JANUARY 9, 2020

SHEET INDEX

COVER
0 - APPLICATION FORM
1 - EXISTING SITE PLAN
2 - EXISTING & PROPOSED FIRST FLOOR PLANS
3 - EXISTING & PROPOSED SECOND FLOOR PLANS
4 - PROPOSED SITE PLAN
5 - EXISTING & PROPOSED NORTH ELEVATIONS
6 - EXISTING & PROPOSED EAST ELEVATIONS
7 - EXISTING & PROPOSED SOUTH ELEVATIONS
8 - EXISTING & PROPOSED WEST ELEVATIONS
9 - CLAD WOOD SLIDING WINDOW, WOOD REPLACEMENT SASH, WOOD FRENCH DOOR PRODUCTS
10 - PHOTOGRAPHS
11 - PHOTOGRAPHS
12 - WINDOW PHOTOGRAPHS
13 - WINDOW PHOTOGRAPHS
14 - WINDOW PHOTOGRAPHS
LANDMARK CERTIFICATE OF APPROPRIATENESS - Application

3/15/16

DENVER THE MILE HIGH CITY
Community Planning & Development
Application

Landmark Preservation

SUBJECT: PROPERTY INFORMATION

Property Address: 655 N Gaylord Stree

Property Type/Use: [ ] 1 or 2 Unit Building (Single Family Home, Duplex); [ ] Commercial; [ ] Multi-Unit Residential; [ ] Other

Applicants: Patrick Cashen

Historic District: East 7th Avenue

Email: Patrick Cashen Architect

Applications: 303.759.0650

City: Denver CO

Replaced non-original windows enclosing the front porch

Flagstoned and brick exterior landing and steps

Specify location of old windows and new windows:

Replace sashes with textured glass in non-original windows with sashes with clear glass

Stoned and brick exterior BBQ enclosure

Replace one non-original west window with French doors, replace exterior landing and steps

Clad wood windows at the front porch, painted wood sash replacements, painted wood French doors

Materials of work:

Amount of demolition: [ ] of original facade materials

40 sf of wall to add French door

APPLICATIONS ARE NOT CONSIDERED COMPLETE UNTIL ALL INFORMATION REQUIRED. ON THE APPROPRIATE SUBMITTAL CHECKLIST IS SUBMITTED

I attest that no additional exterior work or windows work will occur under this application (sign and print application).

City of Denver
Community Planning & Development
Landmark Preservation
307 W. Colfax Ave., Dept. 201
Denver, CO 80205
720-865-2539 or landmark@denvergov.org

Design Review Deadline: The filing deadline is 45 days prior to a scheduled Landmark Preservation Committee (LPC) meeting, and 30 days (1 week) and 3 days prior to the first Tuesday of each month for the Lower Downtown Design Review Board (LDDRB). A complete application, including full supporting documentation, is due to the Landmark Preservation office by the LPC or LDDRB deadline. Landmark staff will determine whether LPC or LDDRB review is required based on an adopted design guideline. Staff will contact the applicant regarding staff comments, meeting dates (if applicable) and any additional materials that may be required. To submit electronically, visit the form and supporting materials to landmark@denvergov.org. Electronic submittals should include two attachments: one pdf with the completed form ("Landmark Appr Request" or "LDDRB Appr Request") and one pdf that explains all supporting materials ("Landmark-matter.pdf") file size should not exceed 25MB.

Contact: [ ] if you are having trouble with your electronic submittal.

The applicant may submittal the form and supporting materials to the Records Counter between 7:30am and 4:30pm on the 2nd floor of the Wheeler-Municipal Building, 213 W. Colfax Ave.

All submittals become the property of the City of Denver; therefore, copies are not returned. Submittals will be posted online or made available to any party that requests a copy.
EXISTING FIRST FLOOR PLAN

PROPOSED FIRST FLOOR PLAN

REYNOLDS RESIDENCE 655 N GAYLORD ST PATRICK CASHEN ARCHITECT SEPTEMBER 9 2019
PROPOSED SITE PLAN

2 STORY SFR

REYNOLDS RESIDENCE  655 N GAYLORD ST  PATRICK CASHEN ARCHITECT  SEPTEMBER 9 2019
EXISTING NORTH ELEVATION
1/8"=1'-0"

PROPOSED NORTH ELEVATION
1/8"=1'-0"

LEGEND
OW = ORIGINAL WINDOW
NOW = NON-ORIGINAL WINDOW IN ORIGINAL OPENING
TG = TEXTURED GLASS

SLIDING CLAD WOOD WINDOW REPLACEMENT

REPLACE TEXTURED GLASS WITH CLEAR GLASS

REYNOLDS RESIDENCE  655 N GAYLORD ST  PATRICK CASHEN ARCHITECT

JANUARY 9, 2020  SEPTEMBER 9 2019
EXISTING SOUTH ELEVATION

PROPOSED SOUTH ELEVATION

LEGEND
OW = ORIGINAL WINDOW
NOW = NON-ORIGINAL WINDOW IN ORIGINAL OPENING
TG = TEXTURED GLASS

NEW BRICK & STONE
LANDING & STEPS
NEW BRICK BBQ ENCLOSURE

REPLACE TEXTURED GLASS
WITH CLEAR GLASS

SLIDING CLAD
WOOD WINDOW
REPLACEMENT

REYNOLDS RESIDENCE  655 N GAYLORD ST  PATRICK CASHEN ARCHITECT  JANUARY 9, 2020
SEPTEMBER 9 2019
EXISTING WEST ELEVATION
1/8"=1'-0"

LEGEND
DW = ORIGINAL WINDOW
NOW = NON-ORIGINAL WINDOW
IN ORIGINAL OPENING
TG = TEXTURED GLASS

PROPOSED WEST ELEVATION
1/8"=1'-0"

REMOVE WINDOW
ADD WOOD CLAD FRENCH DOOR

NEW BRICK & STONE
LANDING & STEPS
NEW BRICK BBQ ENCLOSURE

REYNOLDS RESIDENCE  655 N GAYLORD ST  PATRICK CASHEN ARCHITECT  JANUARY 9, 2020
NOTE: Triple sash not available with CE mark.

Square sticking is the default for the contemporary product.

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Daylight Opening</th>
<th>Head Jamb and Sill</th>
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</thead>
<tbody>
<tr>
<td>1 3/4&quot;</td>
<td>5 21/32&quot;</td>
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<tr>
<td>1 3/4&quot;</td>
<td>4 9/16&quot;</td>
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</tr>
<tr>
<td>1 5/8&quot;</td>
<td>3 9/32&quot;</td>
<td>1 3/4&quot; (44)</td>
</tr>
</tbody>
</table>

CLAD FRENCH DOOR

CLAD WOOD SLIDING WINDOWS

MARVIN Ultimate Glider

Section Details: Operating/Triple Sash
Scale: 3" = 1' 0"
W4, W5, W6

W7