

# Clements - King Residence

## Portland, Maine



### Relevant Zoning Ordinances

|                                    |                                                                                                                                                 |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 46 Merrill Street, Portland, Maine |                                                                                                                                                 |
| Zone                               | R-6                                                                                                                                             |
| Section 14-139.                    | Dimensional requirements                                                                                                                        |
| Setbacks                           | Front - 5'<br>Back - 10'<br>Side 2.5+ story - 5'                                                                                                |
| Lot Coverage                       | 60% Structure<br>20% non-permeable Surfaces<br>minimum of 20% of the lot must be maintained as "Landscaped Open Space"                          |
| Maximum Height                     | 45'<br>portions of the building above 35' in height must be no closer than 10' from the side property line and 15' from the rear property line. |
| Minimum Lot Size                   | 2,000 sf                                                                                                                                        |
| Minimum Street Frontage            | 20'                                                                                                                                             |
| Minimum lot Width                  | 20'                                                                                                                                             |
| Maximum Garage Opening             | not to exceed the greater of 9' or 40% of front facades. not to exceed 20'                                                                      |

### Relevant MUBEC Codes

|                           |                                                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2009 IRC                  |                                                                                                                                                                                                                                                                                                       |
| R302.5                    | dwelling/ garage opening/ penetration protection. Openings and penetrations through the walls or ceilings separating the dwelling from the garage shall be in accordance with sections R302.5.1 through R302.5.3                                                                                      |
| R302.5.1                  | Opening protection, openings between garage and residence shall be equipped with solid wood doors, not less than 1 3/8" in thickness, solid or honeycomb core steel doors not less than 1 3/8" thick, or 20 min fire-rated                                                                            |
| R302.6                    | Dwelling/ garage fire separation. The garage shall be separated as required by Table R302.6.                                                                                                                                                                                                          |
| Table R302.6              | Separation - from all habitable rooms above the garage. Material - Not less than 5/8" Type X gypsum board or equivalent                                                                                                                                                                               |
| 2009 NFPA 101             |                                                                                                                                                                                                                                                                                                       |
| 24.3.5.1                  | All new one- and two-family dwellings shall be protected throughout by an approved automatic sprinkler system in accordance with 24.3.5.2                                                                                                                                                             |
| 24.3.5.2                  | Where an automatic sprinkler system is installed, either for total or partial building coverage, the system shall be in accordance with section 9.7; in buildings of four or fewer stories in eight above grade plane, systems in accordance with NFPA 13R, and with NFPA 13D shall also be permitted |
| 2009 IECC Climate Zone 6  |                                                                                                                                                                                                                                                                                                       |
| -Penetration U-Factor     | 0.35                                                                                                                                                                                                                                                                                                  |
| -Ceiling R-Value          | 49                                                                                                                                                                                                                                                                                                    |
| -Wood Framed Wall R-Value | 20 or R-13 in cavity +R-5 insulated sheathing, Mass wall R-Value R-15/19 the second R-value applies when more than half the insulation is on the interior of the mass wall                                                                                                                            |
| -Floor R-Value            | 30 or insulation sufficient to fill the framing cavity R-19 min,                                                                                                                                                                                                                                      |
| -Basement wall R-Value    | 15/19 R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall.                                                                                                                                                     |
| -Slab R-Value & depth     | R-10, 4ft                                                                                                                                                                                                                                                                                             |

### Relevant City of Portland - Code of Ordinances

|                                           |                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chapter 10 Fire Prevention and Protection |                                                                                                                                                                                                                                                                                                                                       |
| Section 10-3 Amendments                   |                                                                                                                                                                                                                                                                                                                                       |
| (g)                                       | Section 39.3.4.4. Fire department notification shall be accomplished in accordance with section 9.6.4.                                                                                                                                                                                                                                |
| (h)                                       | Stair risers 7 3/4" max, guards 36" min, treads depth 10" min, and tread nosing 3/4" min. to 1 1/4" max.                                                                                                                                                                                                                              |
| (i)                                       | New smoke alarm installations must use photoelectric technology. Further, in new single or multiple-station smoke alarm installations in buildings subject to NFPA 101, Chapter 31, the primary power source must be the building's electrical service and the smoke alarms must be provided with a secondary (standby) power source. |
| (l)                                       | All residential occupancies, and all new multiple occupancies containing parking structures shall be protected in accordance with NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment, 2009 edition.                                                                                      |

### Index of Drawings

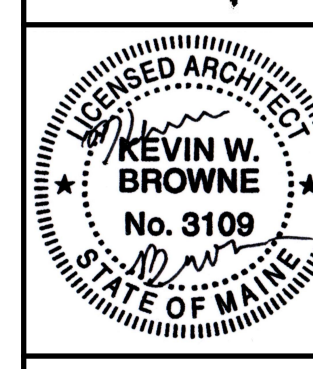
|       |                                          |
|-------|------------------------------------------|
| C1.0  | Cover Sheet                              |
| SP1.0 | 46 Merrill Boundary Survey               |
| L1.0  | Site Preparation Plan                    |
| L2.0  | Site Layout & Utility Plan               |
| L3.0  | Site Materials, Grading, & Drainage Plan |
| L4.0  | Landscape Plan                           |
| A1.1  | First Floor Plan                         |
| A1.2  | Second Floor Plan                        |
| A1.3  | Third Floor Plan                         |
| A1.4  | Fourth Floor Plan                        |
| A1.5  | Roof Floor Plan                          |
| A2.1  | Elevations                               |
| A2.2  | Elevations                               |
| A3.1  | Section                                  |
| A3.2  | Section                                  |
| A3.3  | Section                                  |
| A4.1  | Arch Details                             |
| A4.2  | Arch Details                             |
| A4.3  | Stair Details                            |
| S1.1  | Foundation Plan                          |
| S1.2  | Entry and Side Porch Framing Plans       |
| ?S1.2 | Second & Third Floor Framing Plans       |
| ?S1.3 | Fourth Floor & Roof Framing Plans        |

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**REVISIONS:**  
9-19-2017: Issue for permit  
1-17-2018: Reissue for permit

**CONSULTANTS:**

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**Cover Sheet**  
DRAWN: KBA  
SCALE: As Noted  
DATE: 1/17/18  
PROJECT NO.: 2017-10

**C1.0**