

**CITY OF SAINT PAUL
HERITAGE PRESERVATION COMMISSION STAFF REPORT**

FILE NAME: 397 Ashland Avenue
APPLICANT: Nick Carmichael
OWNER: Nick Carmichael
DATE OF APPLICATION: January 11, 2016
DATE OF PUBLIC HEARING: January 28, 2016
HPC SITE/DISTRICT: Historic Hill Heritage Preservation District
CATEGORY: Contributing **WARD:** 1 **DISTRICT COUNCIL:** 8
INVENTORY NUMBER: RA-SPC-0134
CLASSIFICATION: Building Permit
STAFF INVESTIGATION AND REPORT: Christine Boulware
DATE OF REPORT: January 25, 2016

A. SITE DESCRIPTION:

The residence at 397 Ashland Avenue is a two-story, wood-frame building constructed c.1880. This Italianate-style residence is rectangular in plan with an early or original, one-story, rectangular projection at the back of the east (side) elevation. The foundation is coursed limestone with a wide watertable above. Narrow lap siding surrounds the two stories up to the top of the one-over-one wood double hung windows where shingle detailing continues up to the central gable that contains a set of three fixed windows. The slightly bellcast hipped roof has bracketed eaves with large corner brackets. The full-width front porch was constructed in the 1980s. The property is categorized as contributing to the character of the Hill Heritage Preservation District.

B. PROPOSED CHANGES:

The applicant is proposing to:

- Install a curb cut and driveway apron at Western Avenue
- Install a grass paver driveway
- Slope the grade to create a below grade, tuck-under one-stall garage
- Cut into the foundation to create an opening and install a garage door and framing
- Install retaining walls to support the slope
- Install a railing at the top of the retaining walls

C. GUIDELINE CITATIONS:

The Secretary of the Interior's Standards for Rehabilitation:

1. A property will be used as it was historically or be given a new use that requires minimal changes to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in

design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize a property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Historic Hill Heritage Preservation District Guidelines

Sec. 74.64. - Restoration and Rehabilitation

(a) General Principles:

- 1. Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.*
- 2. The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.*
- 3. All buildings, structures, and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.*
- 4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.*
- 5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site shall be treated with sensitivity.*
- 6. Deteriorated architectural features shall be repaired rather than replaced, whenever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.*
- 7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.*
- 8. Every reasonable effort shall be made to protect and preserve archaeological resources affected by, or adjacent to any project.*
- 9. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural or cultural material, and such design is compatible with the size, scale, color, material, and character of the property, neighborhood, or environment.*
- 10. Wherever possible, new additions or alterations to structures shall be done in such a manner that if such alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.*

(b) *Masonry and Foundations:*

(1) Whenever possible, original masonry and mortar should be retained without the application of any surface treatment. Masonry should be cleaned only when necessary to halt deterioration and always with the gentlest method possible, such as low-pressure water and soft natural bristle brushes. Brick and stone surfaces should not be sandblasted because it erodes the surface of the material and accelerates deterioration. Chemical cleaning products which could have an adverse chemical reaction with the masonry material should not be used.

(2) Original mortar joint size and profile should be retained and replacement mortar should match the original mortar in color and texture. Materials and ingredient proportions similar to the original mortar should be used when repointing, with replacement mortar softer than the masonry units and no harder than the historic mortar. This will create a bond similar to the original and is necessary to prevent damage to the masonry units. Repointing with mortar of high portland cement content often creates a bond stronger than is appropriate for the original building materials, possibly resulting in cracking or other damage. Mortar joints should be carefully washed after setup to retain the neatness of the joint lines and keep extraneous mortar off of masonry surfaces.

(3) The original color and texture of masonry surfaces should be retained. While unpainted masonry surfaces should not be painted, paint should not be indiscriminately removed from masonry surfaces because some brick surfaces were originally meant to be painted.

Sec. 74.65. - New construction.

(f) *Site:*

(2) *Landscaping:*

a. Typically, open space in the Historic Hill District is divided into public, semipublic, semiprivate and private space. The public space of the street and sidewalk is often distinguished from the semipublic space of the front yard by a change in grade, a low hedge or a visually open fence. The buildings, landscaping elements in front yards, and boulevard trees together provide a "wall of enclosure" for the street "room." Generally, landscaping which respects the street as a public room is encouraged. Enclosures which allow visual penetration of semipublic spaces, such as wrought-iron fences, painted picket fences, low hedges or limestone retaining walls, are characteristic of most of the Historic Hill area. This approach to landscaping and fences is encouraged in contrast to complete enclosure of semipublic space by an opaque fence, a tall "weathered wood" fence or tall hedgerows. Cyclone fence should not be used in front yards or in the front half of side yards. Landscape timber should not be used for retaining walls in front yards.

b. For the intimate space of a shallow setback, ground covers and low shrubs will provide more visual interest and require less maintenance than grass. When lots are left vacant as green space or parking area, a visual hole in the street "wall" may result. Landscape treatment can eliminate this potential problem by providing a wall of enclosure for the street. Boulevard trees mark a separation between the automobile corridor and the rest of the streetscape and should be maintained.

(3) *Garages and parking:*

a. If an alley is adjacent to the dwelling, any new garage should be located off the alley. Where alleys do not exist, garages facing the street or driveway curb cuts may be acceptable. Garage doors should not face the street. If this is found necessary, single garage doors should be used to avoid the horizontal orientation of two-car garage doors.

b. Parking spaces should not be located in front yards. Residential parking spaces should be located in rear yards. Parking lots for commercial uses should be to the

side or rear of commercial structures and have a minimum number of curb cuts. All parking spaces should be adequately screened from the street and sidewalk by landscaping. The scale of parking lots should be minimized and the visual sweep of pavement should be broken up by use of planted areas. The scale, level of light output and design of parking lot lighting should be compatible with the character of the district.

(g) *Public infrastructure:*

(1) The traditional pattern of public streets, curbs, boulevards and sidewalks in the area should be maintained. Distinctive features of public spaces in the area such as brick alleys, stone slab sidewalks, granite curbs and the early twentieth century lantern-style street lights should be preserved. The same style should be used when new street lights are installed. New street furniture such as benches, bus shelters, telephone booths, kiosks, sign standards, trash containers, planters and fences should be compatible with the character of the district.

(2) Brick alleys and stone slab sidewalks generally should be maintained and repaired as necessary with original materials; asphalt and concrete patches should not be used. When concrete tile public sidewalks need to be replaced, new poured concrete sidewalks should be the same width as the existing sidewalks and should be scored in a two-foot square or 18-inch square pattern to resemble the old tiles; expansion joints should match the scoring. Handicap ramps should be installed on the inside of curbs as part of the poured concrete sidewalk; where there is granite curbing, a section should be lowered for the ramp.

(Ord. No. 17815, § 3(II) 4-2-91)

D. FINDINGS:

1. On April 2, 1991, the most recent expansion of the Historic Hill Heritage Preservation District was established under Ordinance No. 17815, § 3(II). The Heritage Preservation Commission shall protect the architectural character of heritage preservation sites through review and approval or denial of applications for city permits for exterior work within designated heritage preservation sites §73.04.(4).
2. The residence was constructed c. 1880 and is categorized as contributing to the character of the Historic Hill Heritage Preservation District.
3. The Sanborn Fire Insurance Map from 1903-1925 shows the one-story projection into the east side yard. The garage stall is proposed in the basement of this portion of the house and a driveway from Western Avenue is proposed to access the parking space.
4. Leg. Code §74.64(a)(1) The proposal to create a curb cut, construct a driveway, alter the grade, install retaining walls, and construct a garage in the basement of the house mostly alters the site and building at or below grade. The opening for the garage entrance will project above grade, but not taller than the existing basement windows. Railings proposed along the slope to the driveway are the other alteration above grade. The proposed hardscaping uses little surface material to allow as much green space and permeability to remain along the driveway. The creation of the garage in the basement requires minimal alteration of the building and moderate alteration of the site while allowing the property to continue use as a residence.
5. Leg. Code §74.64(a)(2) The installation of the driveway and garage stall will not destroy distinguishing original qualities or character of a building, structure, or site and its environment. The removal of limestone from the foundation for the installation of a garage door will not result in the loss of distinctive architectural features of the property.
6. Leg. Code §74.64(a)(10) The alterations and additions to residence and site are being undertaken in a manner that if they were to be removed in the future, the essential form and integrity of the building and site would be unimpaired.

7. **Masonry and Foundations** Leg. Code §74.64(b)(2) &(3) The application does not address how the limestone foundation on the house will be repaired and/or repointed once the garage door opening is cut and framed. Replacement mortar should be softer than the masonry units and no harder than the historic mortar. The original color and texture of masonry surfaces should be retained and unpainted masonry surfaces should not be painted. A scope-of-work and mortar specifications will be required for final review and approval.
8. **Site: Landscaping** Leg. Code §74.65(f)(2)a. Details for the fence/railing proposed along the top of the retaining wall was not provided. Enclosures which allow visual penetration of semipublic spaces, such as wrought-iron fences, painted picket fences, low hedges or limestone retaining walls, are characteristic of most of the Historic Hill area and wood privacy fences and taller hedges are permitted in the rear yard. This approach to landscaping and fences is encouraged and final details will be required. The proposed retaining wall block has a beveled edge which does not relate to the foundation material or traditional stone walls in the historic district. The block should resemble the foundation in color and the block face should be flat with a rock- or split-faced texture. The cast-iron, ornamental fence at 385 Ashland, adjacent to the driveway, is a historic, character defining feature of 385 Ashland Avenue and precautions should be taken to avoid damage.
9. **Site: Landscaping** Leg. Code §74.65(f)(2)b. While there are no boulevard trees in the location where the curb cut and driveway apron are proposed, there are a cluster of trees on the property, next to the sidewalk, that will most likely be removed. The paving material is a Turfstone ribbon driveway until the grade slopes to the garage entrance. The paver design allows for vegetation to grow through it which will lessen the visual and physical disturbance of the driveway strip between the apartment building and house on the corner.
10. **Site: Garages and Parking** Leg. Code §74.65(f)(3)a. The rear-half of the lot was split off from the front-half at some point after the period of significance. The residence does not have alley access, thus the driveway curb cuts at Western Avenue is acceptable. The single garage doors face the street, but will be below grade.
11. **Site: Garages and Parking** Leg. Code §74.65(f)(3)b. By accessing the site from the east and locating the parking under the building, the parking space will not be located in front yard as the guideline advises against.
12. **Public Infrastructure** Leg. Code §74.65(g)(1) The guideline states that the traditional pattern of public streets, curbs, boulevards and sidewalks in the area should be maintained. Distinctive features of public spaces in the area such as brick alleys, stone slab sidewalks, granite curbs and the early twentieth century lantern-style street lights should be preserved. Staff will conduct a site visit prior to the public hearing to determine if sandstone or granite curbs are present at the location where the curb cut is proposed. There do not appear to be stone slab sidewalk or a streetlight in the area curb cut/driveway area.
13. **Public Infrastructure** Leg. Code §74.65(g)(2) The new, poured concrete sidewalk at the driveway area will need to match the existing sidewalk width along with color and scoring pattern.
14. The proposal to install a curb cut and apron at Western Avenue, install a grass-paver driveway, slope the grade, alter the limestone foundation on the east elevation to create a garage opening, and install retaining walls to support the slope with railings on top at 397 Ashland Avenue will not adversely affect the Program for the Preservation and architectural control of the Historic Hill Heritage Preservation District (Leg. Code §73.06 (e)) so long as the conditions are met.

E. STAFF RECOMMENDATION:

Based on the findings, staff recommends approval of the application to install a curb cut and apron

at Western Avenue, install a grass-paver driveway, slope the grade, alter the limestone foundation on the east elevation to create a garage opening, and install retaining walls to support the slope with railings on top with the following conditions:

1. A masonry scope-of-work and mortar specifications shall be provided to HPC staff for final review and approval
2. A detailed plan for the proposed railing/fencing along the retaining walls shall be provided to HPC staff for final review and approval.
3. The new retaining walls shall be a limestone color to match the foundation, have a flat face with a rock- or split-faced texture. The wall shall have a cap. Final retaining wall materials and details shall be submitted to HPC staff for final review and approval.
4. The historic, cast iron fence at 385 Ashland Avenue shall be protected throughout the construction process.
5. The applicant shall obtain all necessary approvals from Public Works to install a driveway curb cut and apron. If granite or sandstone curb is present at the location, it shall be salvaged by the contractor and stored by Public Works for reuse in the heritage preservation districts and sites.
6. The new framing and garage doors, if not pre-finished, shall be painted within one year of permit issuance.
7. All final materials, colors and details shall be submitted to the HPC and/or staff for final review and approval.
8. Any revisions to the approved plans shall be reviewed and approved by the HPC and/or staff.

F. ATTACHMENTS:

1. HPC design review application
2. Supporting information submitted by applicant
3. 1903-1925 Sanborn Fire Insurance Map – Sheet 50



Saint Paul Heritage Preservation Commission
Department of Planning and Economic Development
25 Fourth Street West, Suite 1400
Saint Paul, MN 55102
Phone: (651) 266-9078
ApplyHPC@stpaul.gov

HERITAGE PRESERVATION COMMISSION DESIGN REVIEW APPLICATION

This application must be completed in addition to the appropriate city permit application if the affected property is an individually designated landmark or located within an historic district. For applications that must be reviewed by the Heritage Preservation Commission refer to the HPC Meeting schedule for meeting dates and deadlines.

1. CATEGORY

Please check the category that best describes the proposed work

- | | | |
|--|---|---|
| <input type="checkbox"/> Repair/Rehabilitation | <input type="checkbox"/> Sign/Awning | <input type="checkbox"/> New Construction/Addition/ Alteration |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Fence/Retaining Wall | <input type="checkbox"/> Pre-Application Review Only |
| <input type="checkbox"/> Demolition | <input checked="" type="checkbox"/> Other <u>paver driveway/ tuckunder garage</u> | |

2. PROJECT ADDRESS

Street and number: 397 Ashland Avenue Zip Code: 55102

3. APPLICANT INFORMATION

Name of contact person: Nick Carmichael

Company: _____

Street and number: 397 Ashland Avenue

City: St. Paul State: MN Zip Code: 55102

Phone number: 651 262 7809 e-mail: carm0026@yahoo.com

4. PROPERTY OWNER(S) INFORMATION (If different from applicant)

Name: _____

Street and number: _____

City: _____ State: _____ Zip Code: _____

Phone number: _____ e-mail: _____

5. PROJECT ARCHITECT (If applicable)

Contact person: _____

Company: _____

Street and number: _____

City: _____ State: _____ Zip Code: _____

Phone number: _____ e-mail: _____

6. PROJECT DESCRIPTION

Completely describe ALL exterior changes being proposed for the property. Include changes to architectural details such as windows, doors, siding, railings, steps, trim, roof, foundation or porches. Attach specifications for doors, windows, lighting and other features, if applicable, including color and material samples.

- Curb cut
- Grass paver driveway
- Slope to below grade tuck under garage
- New retaining walls supporting slope
- New garage door
- Railing at the top of the retaining wall

Attach additional sheets if necessary

7. ATTACHMENTS

Please list any attachments that are included in this application. Refer to the [Design Review Application Process Checklist](#) for required information or attachments.

- Ashland driveway photos and notes ppt/pdf
- Site, Section Plan pdf
- 397 Ashland Survey

Attach the above listed to this application or attach in an email to ApplyHPC@stpaul.gov

Will any federal money be used in this project? YES NO

Are you applying for the Investment Tax Credits? YES NO

I, the undersigned, understand that the Design Review Application is limited to the aforementioned work to the affected property. I further understand that any additional exterior work to be done under my ownership must be submitted by application to the St. Paul Heritage Preservation Commission. Any unauthorized work will be required to be removed.

Signature of applicant:  Date: 1/11/2016

Signature of owner:  Date: 1/11/2016

Send completed application with the necessary attachments to ApplyHPC@stpaul.gov or to:
 Saint Paul Heritage Preservation Commission
 Department of Planning and Economic Development
 25 Fourth Street West, Suite 1400
 Saint Paul, MN 55102

FOR HPC OFFICE USE ONLY

Date received: _____

FILE NO. _____

Date complete: _____

District: _____/Individual Site: _____

Pivotal/Contributing/Non-contributing/New Construction/Parcel

Requires staff review

Supporting data: **YES NO**
Complete application: **YES NO**
The following condition(s) must be met in order for application to conform to preservation program:

It has been determined that the work to be performed pursuant to the application does not adversely affect the program for preservation and architectural control of the heritage preservation district or site (Ch.73.06).

HPC staff approval

Date _____

Requires Commission review

Submitted:

- 3 Sets of Plans
- 15 Sets of Plans reduced to 8 1/2" by 11" or 11" by 17"
- Photographs
- CD of Plans (pdf) & Photos (jpg)
- City Permit Application
- Complete HPC Design Review application

Hearing Date set for: _____

City Permit # ____ - _____

HPC Staff Notes

[Empty box for HPC Staff Notes]

ADVANCE SURVEYING & ENGINEERING CO.

5300 S. Hwy. No. 101 Minnetonka, MN 55345 Phone (952) 474 7964 www.advsur.com

SURVEY FOR: NICK CARMICHAEL

SURVEYED: October 21, 2015 **DRAFTED: October 22, 2015**

ADDRESS: 397 Ashland Avenue, St. Paul.

LEGAL DESCRIPTION:

The West 4.52 feet of the South half of Lot 2, Block 12, Woodland Park Addition.
That part of Lot 3, which lies South of the North 55.00 feet and West of the East 1.00 feet of said Lot 3, Block 12, Woodland Park Addition.

The East 1.00 foot of Lot 3, which lies South of the North 72.51 feet of said Lot 3, Block 12, Woodland Park Addition, Ramsey County, Minnesota.

The North 18 feet of the South one-half of Lot 1 and the North 18 feet of the South one-half of Lot 2, except the West 4.52 feet of said Lot 2, all in Block 12, Woodland Park Addition to the City of St. Paul according to the recorded plat thereof, Ramsey County, Minnesota.

SCOPE OF WORK:

1. Showing the length and direction of boundary lines of the above legal description. The scope of our services does not include determining what you own, which is a legal matter. Please check the legal description with your records or consult with competent legal counsel, if necessary, to make sure that it is correct, and that any matters of record, such as easements, that you wish shown on the survey, have been shown.
2. Showing the location of existing improvements we deemed important.
3. Setting new monuments or verifying old monuments to mark the corners of the property.

STANDARD SYMBOLS & CONVENTIONS:

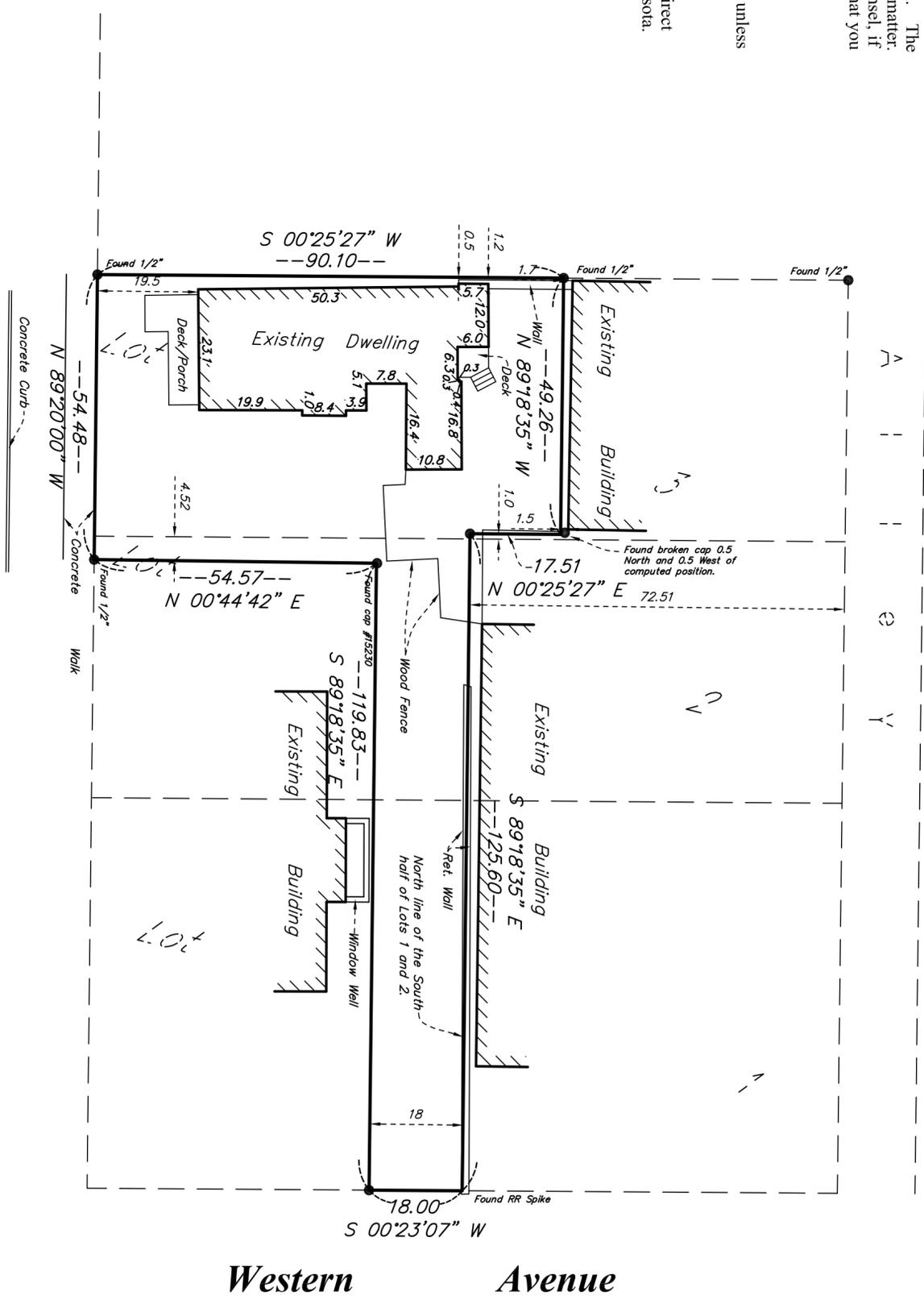
● " Denotes 1/2" ID pipe with plastic plug bearing State License Number 9235, set, unless otherwise noted.

CERTIFICATION:

I hereby certify that this plan, specification, report or survey was prepared by me or under my direct supervision and that I am a licensed Professional Surveyor under the laws of the State of Minnesota.

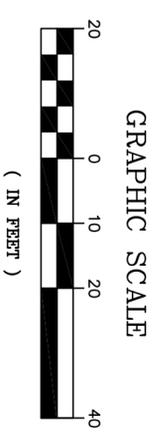
Signature: Thomas M. Bloom Typed Name: Thomas M. Bloom

Date: October 22, 2015 Reg. No. 42379

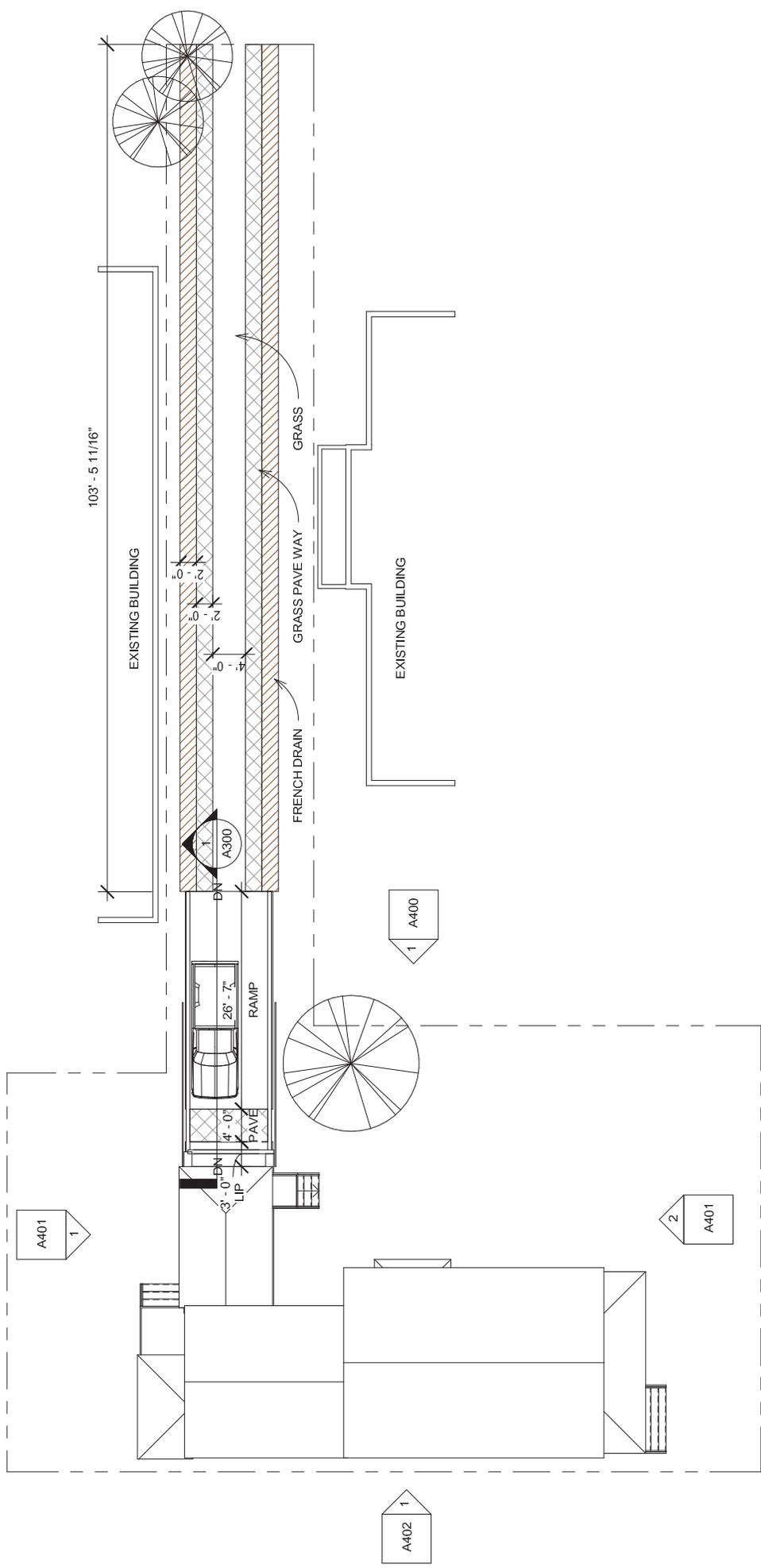


Ashland Avenue

Western Avenue



Drw. No. 151074 TB



1 Site Plan
1" = 12'-0"

Carmichaels'
397 Ashland Ave

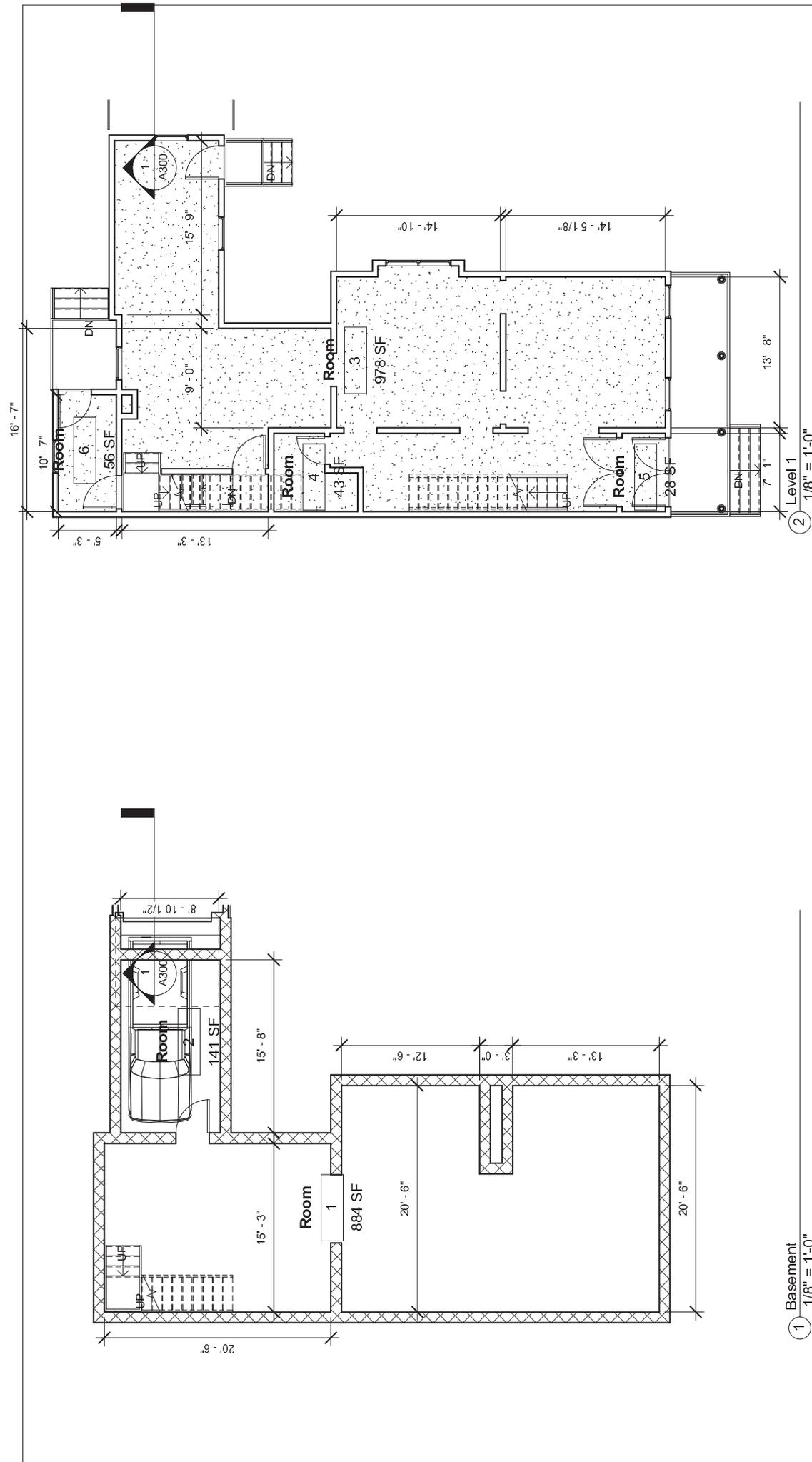
www.capitalcommercialpartners.com

Site Plan

| No. | Description | Date |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | | |
|----------------|----------------|------|
| Project number | Project Number | A100 |
| Date | Issue Date | |
| Drawn by | Author | |
| Checked by | Checker | |

Scale 1" = 12'-0"

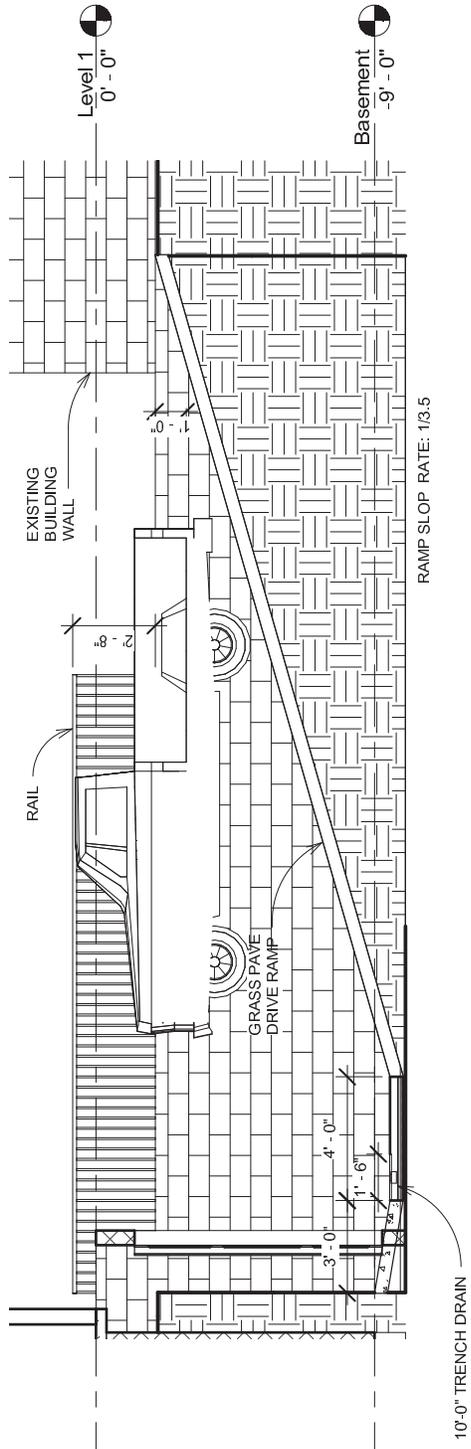


Carmichaels'
397 Ashland Ave

www.capitalcommercialpartners.com

| No. | Description | Date |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |

| Basement and Level 1 Floor Plan | | | |
|---------------------------------|----------------|------|--------------------|
| Project number | Project Number | A101 | |
| Date | Issue Date | | |
| Drawn by | Author | | |
| Checked by | Checker | | |
| | | | Scale 1/8" = 1'-0" |



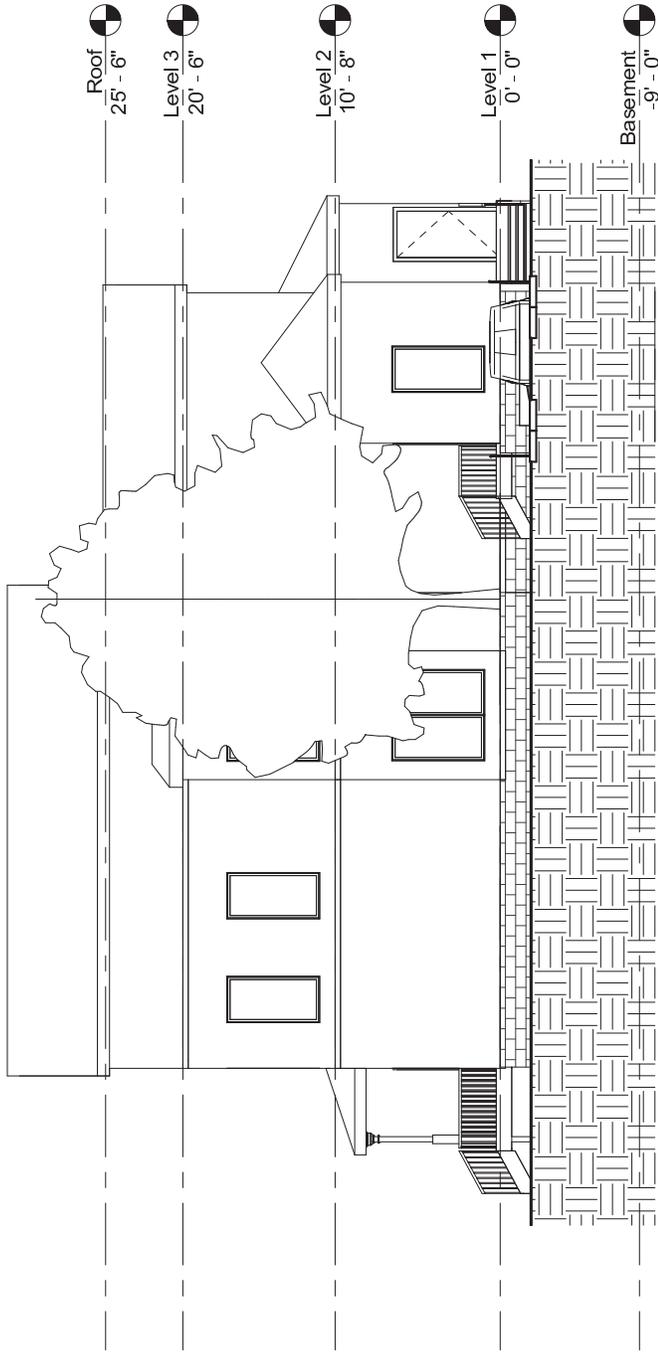
1 Driveway Section
1/4" = 1'-0"

| Driveway Ramp Section | | | |
|-----------------------|----------------|------|--------------------|
| Project number | Project Number | A300 | |
| Date | Issue Date | | |
| Drawn by | Author | | |
| Checked by | Checker | | |
| | | | Scale 1/4" = 1'-0" |

| No. | Description | Date |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |

Carmichaels'
397 Ashland Ave

www.capitalcommercialpartners.com



① East
1/8" = 1'-0"

| No. | Description | Date |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |

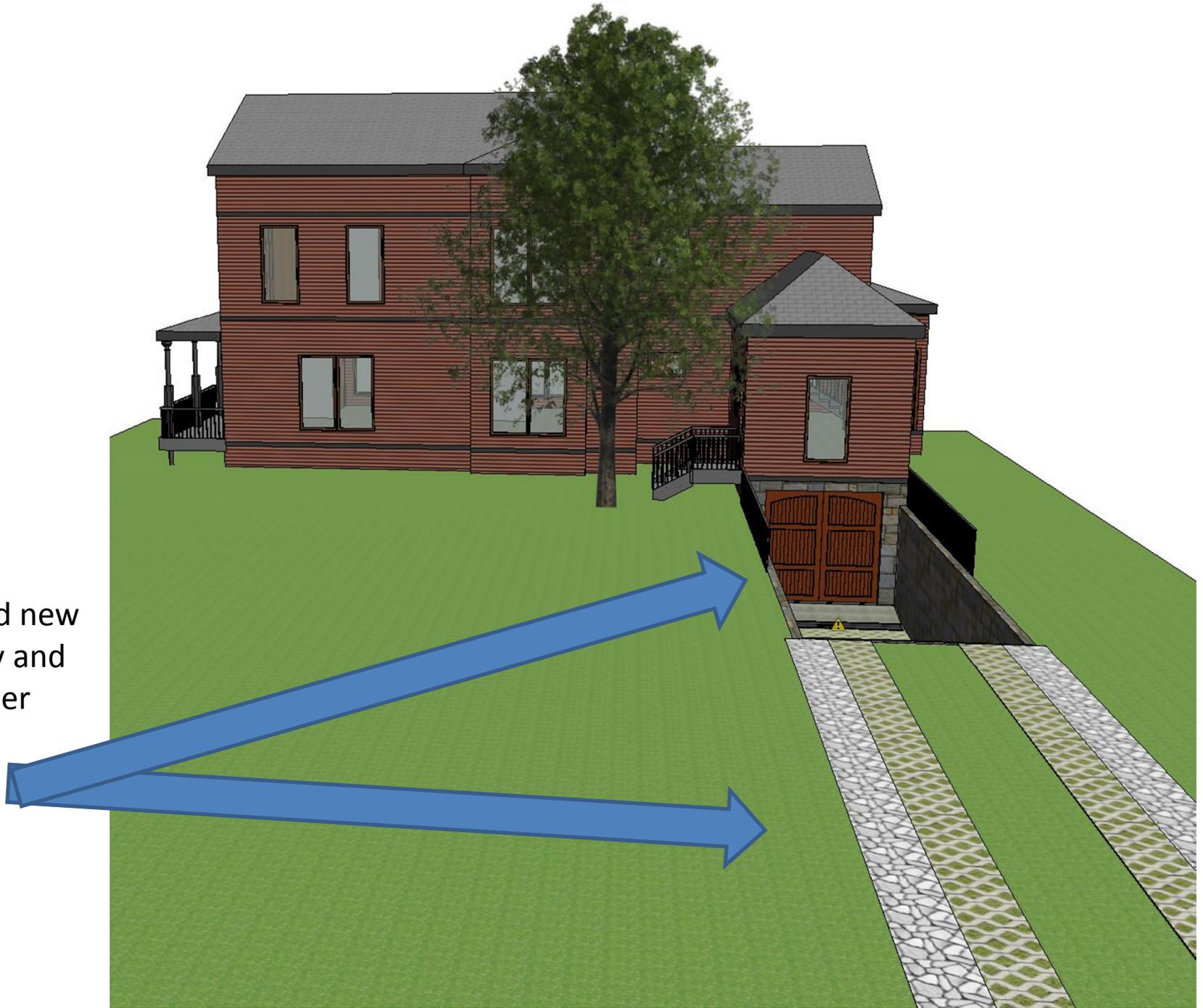
| East Elevation | | | |
|--------------------|----------------|------|--|
| Project number | Project Number | A400 | |
| Date | Issue Date | | |
| Drawn by | Author | | |
| Checked by | Checker | | |
| Scale 1/8" = 1'-0" | | | |

Carmichaels'
397 Ashland Ave

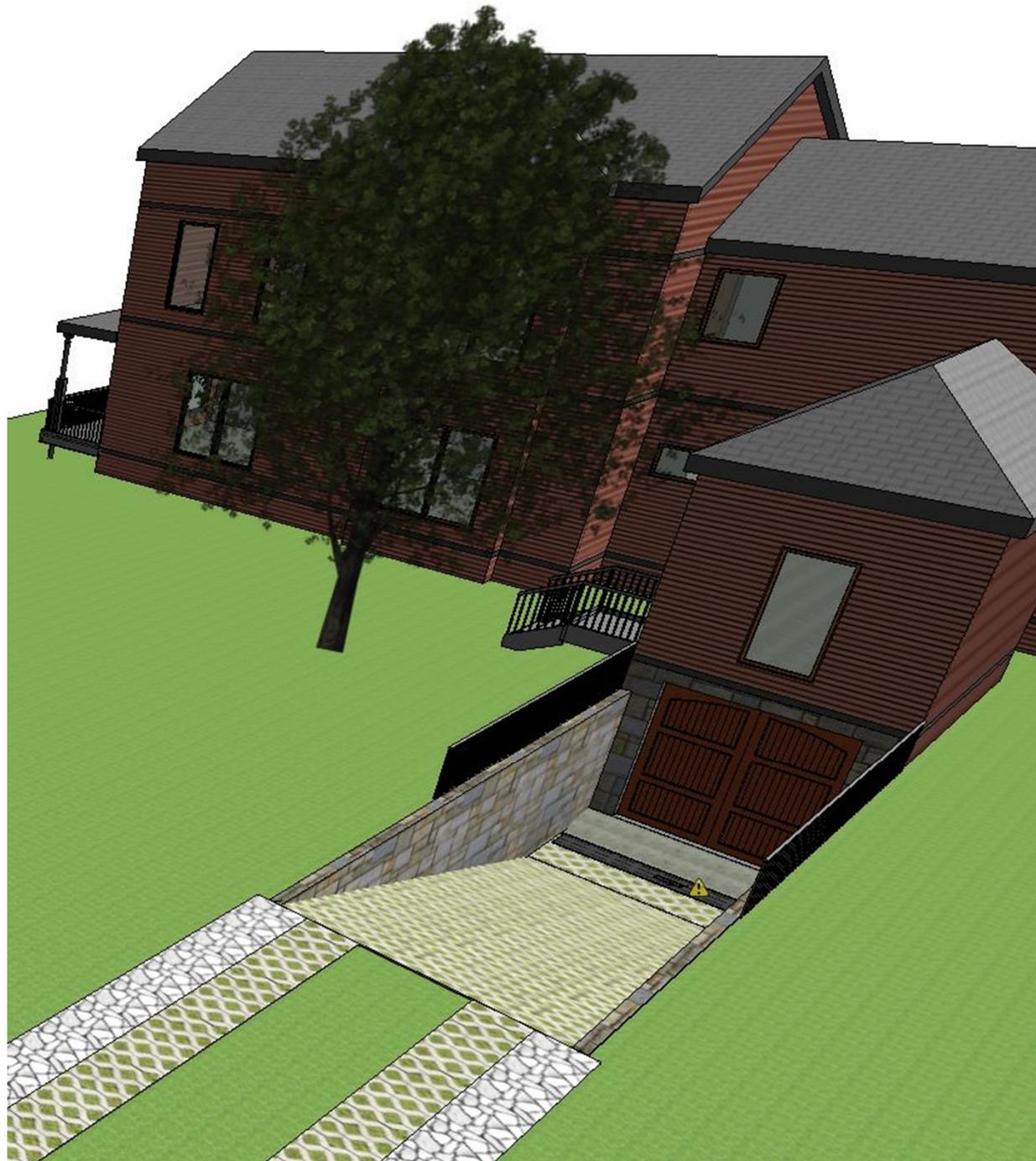
www.capitalcommercialpartners.com

**397 Ashland:
Proposed Grass
Paver Driveway
and Tuck Under
Garage Plans**

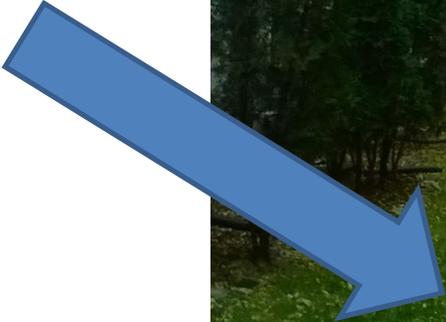
Proposed new
driveway and
tuck under
garage.



Below grade drive
with retaining wall
and railing on top of
retaining wall.



Path for new paver driveway





Proposed curb cut for
future paver driveway

Top of window line
Would be top frame
of new tuck under
garage.



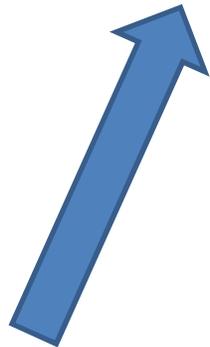


Current parking

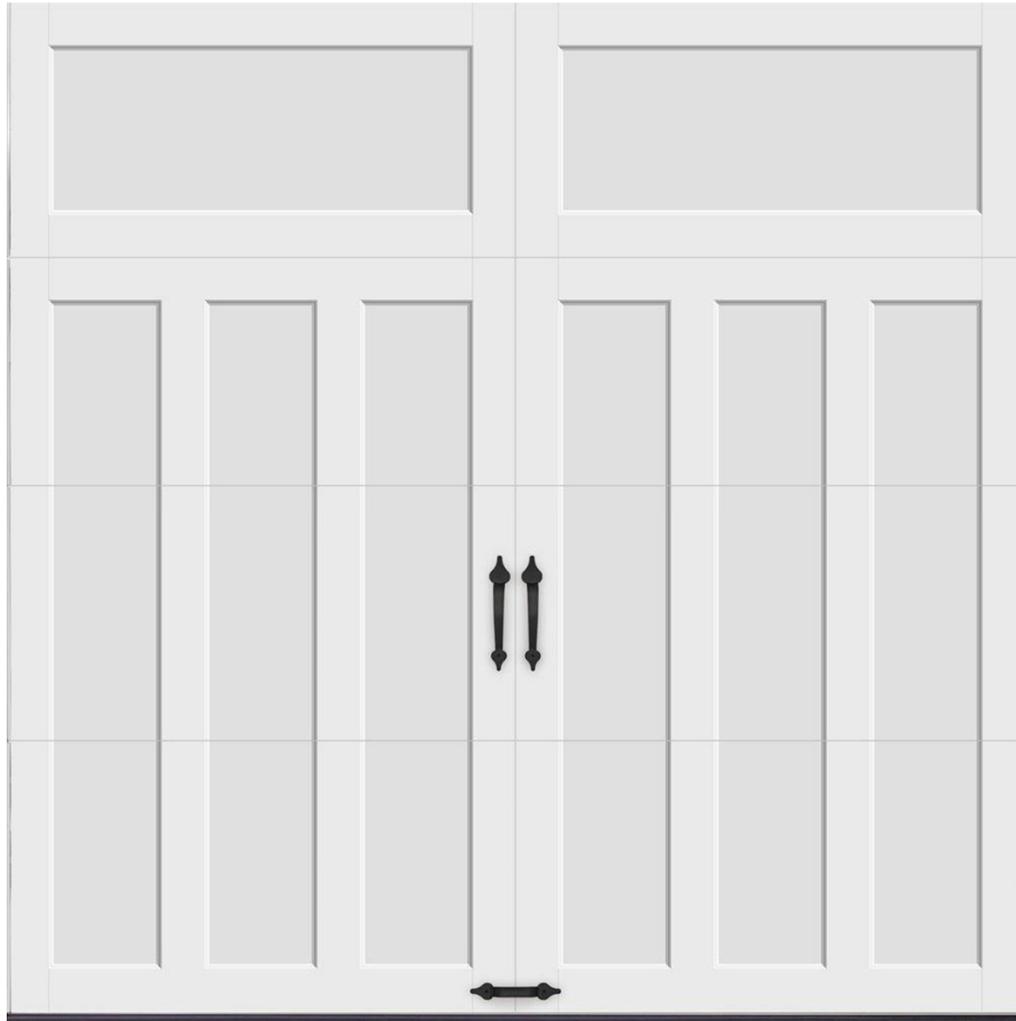
Proposed tuck under garage area



Proposed split rock
retaining wall block :
3-1/2" x 11-1/2" x 7"
Crestone Beveled
Retaining Wall Block



Proposed concrete
paver system



Proposed garage door: Coachman Collection 8 ft. x 8 ft. 18.4 R-Value
Intellicore Insulated Solid White Garage Door

LAUREL AV. 6" W.P.

ASHLAND AV. 6" W.P.

HOLLY AV. 6" W.P.

PORTLAND AV. 6" W.P.

WESTERN AV. N. 6" W.P.

ARUNDEL

