



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

**PLANNING BOARD AGENDA
TUESDAY, JULY 2, 2024, 7:00 P.M.**

PENOBSCOT ROOM, LOWER LEVEL OF PENQUIS C.A.P., 262 HARLOW STREET

LAND DEVELOPMENT CODE AMENDMENTS

1. **Zone Change – 193 Warren Street – Map-Lot 035-081 - Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to Urban Residence 2 District (URD-2)** - To amend the Land Development Code by changing a parcel of land, located at 193 Warren Street, at Map-Lot 035-081, from both Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). Said area of land contains approximately .29 acres total and is more particularly indicated on the map attached hereto and made part hereof. Applicant/Owner: Christopher Proulx.
2. **Zone Change – Fourteenth Street – Map-Lot R35-054-B - Urban Residence 1 District (URD-1) to Multifamily and Service District (M&SD)** - To amend the Land Development Code by changing a parcel of land, located on Fourteenth Street, at Map-Lot R35-054-B, from Urban Residence 1 District (URD-1) to Multifamily and Service District (M&SD). Said area of land contains approximately 2.59 acres total and is more particularly indicated on the map attached hereto and made part hereof. Applicant/Owner: City of Bangor. **Postponement requested**

LAND DEVELOPMENT PERMITS

3. **Land Development Permit – Major Site Development – 327 Odlin Rd – Map-Lot R18-009** - Land Development Permit Application – Major Site Development for renovation of existing parking and landscaped area, at property located on 327 Odlin Road, Map-Lot R18-009, in the General Commercial & Service District (GC&S). Applicant/Owner: Giri Bangor Odlin LLC.

OTHER BUSINESS

4. **Adoption of Notice of Decision for Land Development Permit for 931 Union Street – Northern Light Health**
5. **Adoption of Notice of Decision for Land Development Permit for 287 Godfrey Boulevard – Bangor International Airport**

City of Bangor Planning Division

Planning Board Agenda Tuesday, July 2, 2024

Zoom meeting information posted day of the meeting at bangormaine.gov

- 6. Adoption of Notice of Decision for Land Development Permit for Hillside Avenue – Penquis CAP, Inc**
- 7. Meeting Minutes - June 4, 2024 and June 18, 2024**
- 8. Adjournment**



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

STAFF MEMO

PLANNING BOARD MEETING

TUESDAY, JUNE 18, 2024, 7:00 P.M.

PENOBSCOT ROOM, LOWER LEVEL OF PENQUIS C.A.P., 262 HARLOW STREET

NEW BUSINESS

LAND DEVELOPMENT CODE AMENDMENTS

This is a reminder that the Planning Board's action on Land Development Code amendments takes the form of a recommendation to City Council. The motion is constructed to recommend to the City Council that the proposed amendment ought to pass or ought not to pass. If the Board votes that it ought to pass then the Council needs a majority to pass the amendment. If the Board votes that it ought not to pass, then the Council needs a super majority (2/3 vote) to pass the amendment.

1. **Zone Change – 193 Warren Street – Map-Lot 035-081 - Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to Urban Residence 2 District (URD-2)** - To amend the Land Development Code by changing a parcel of land, located at 193 Warren Street, at Map-Lot 035-081, from both Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). Said area of land contains approximately .29 acres total and is more particularly indicated on the map attached hereto and made part hereof. Applicant/Owner: Christopher Proulx.
 - A. The applicant is seeking a zone change for their property located on 193 Warren Street from a combination of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). The area around the property consists of primarily residential uses (both single family and multi-family), with both URD-1 and URD-2 abutting the property. The change to URD-2 would allow for up to 4 units to exist on the lot.
 - B. This area is within the growth boundary shown in the 2022 Comprehensive Plan and the future land use map in the Plan shows this property in the Urban Neighborhood area, which consists of “medium to high-density residential neighborhoods” with limited complementary commercial and institutional uses. The Planning Division finds this proposed change to be in alignment with the Comprehensive Plan.
2. **Zone Change – Fourteenth Street – Map-Lot R35-054-B - Urban Residence 1 District (URD-1) to Multifamily and Service District (M&SD)** - To amend the Land Development Code by changing a parcel of land, located on Fourteenth Street, at Map-Lot R35-054-B, from Urban Residence 1 District (URD-1) to Multifamily and Service District (M&SD). Said area of land contains approximately 2.59 acres total and is more particularly indicated on the map attached

hereto and made part hereof. Applicant/Owner: City of Bangor.

- A. Staff request that the Planning Board postpone consideration of this item until the July 16th meeting in order to provide adequate notice to abutters.

LAND DEVELOPMENT PERMITS

- 3. **Land Development Permit – Major Site Development – 327 Odlin Rd – Map-Lot R18-009** - Land Development Permit Application – Major Site Development for renovation of existing parking and landscaped area, at property located on 327 Odlin Road, Map-Lot R18-009, in the General Commercial & Service District (GC&S). Applicant/Owner: Giri Bangor Odlin LLC.

- A. The applicant is proposing to modify a previously approved site plan for this property by altering the landscaping, patio area, and parking layout on the north side of the site at 327 Odlin Road. This application is for Phase 2 of the previously approved plans.
- B. Staff comments and questions related primarily to providing minor clarifications on the plans, changing the proposed landscaping to meet the various buffer requirements for the property, changing the lighting to reduce trespass onto Odlin Road, providing a sidewalk connection to Odlin Road, and ensuring that ADA-accessible parking spaces are adequately distributed on the site. The applicant adequately addressed these requests in their plan revisions.
- C. As of the writing of this memo, the applicant notified staff that they would be revising the plans to remove the separate fire and water services and would be using a shared fire and water service. Staff will be working to coordinate this with the Water District prior to Tuesday since this could present an issue for water quality per communication from the Fire Department; however, if this issue is not resolved by then, staff recommend that the Planning Board postpone consideration of this item to the July 16th meeting.

OTHER BUSINESS

- 4. **Adoption of Notice of Decision for Land Development Permit for 931 Union Street – Northern Light Health**

A vote is needed to adopt the Notices of Decision for this item and items 5 and 6.

- 5. **Adoption of Notice of Decision for Land Development Permit for 287 Godfrey Boulevard – Bangor International Airport**
- 6. **Adoption of Notice of Decision for Land Development Permit for Hillside Avenue – Penquis CAP, Inc**

City of Bangor Planning Division

Staff Memo – June 18, 2024 Planning Board meeting

Zoom meeting information posted day of the meeting at bangormaine.gov

7. **Meeting Minutes** – The meeting minutes from your June 4th and June 18th meetings are in the packet.

We appreciate the Board's service and attention to these matters.



CITY OF BANGOR
PLANNING DIVISION

APPLICATION
FOR ZONING
AND MAP AMENDMENT

Paid 1771.00
by check #522
on 5-31-24
(SM)

Date: 5/20/2024

Date of Required Pre-Application Meeting with Staff: _____
(please call (207) 992-4280 to set up an appointment if you have not had a pre-application meeting with staff)

To: The Planning Board & The City Council of the City of Bangor, Maine

1. Applicant Name: Christopher M. Proulx

2. Applicant Address: 2111 Exeter RD Exeter, ME 04435
Address City, State, Zip Code

379-2130 Telephone Number
chrispru20@gmail.com Email Address

3. PROPERTY ADDRESS and Map & Lot 193 Warren ST. 035-081
Address Map Lot

Total Area: 0.29 acres (both lots included)

4. GENERAL PROPERTY LOCATION (Example: South side of State Street 400 yards. East of Pine Street):
Northerly side of Parker Street - beginning @ Lot #26

5. LEGAL DESCRIPTION OF PROPERTY - Book 10134 Page 268 @ Book 7145 Page 3

6. EXISTING ZONING DISTRICT: URD-1

7. PROPOSED ZONING DISTRICT: URD-2

8. NAME AND ADDRESS OF OWNER OF RECORD: Same
Name (if different than applicant)

Address

Telephone Number Email Address

9. NAME AND ADDRESS OF CONTRACT OWNER NONE
Name

Address

Telephone Number Email Address

10. SIGNATURE OF Applicant: Christopher M. Proulx

11. REPRESENTATIVE OF APPLICANT: Christopher M. Proulx
Name

Address

12. IS THIS A CONTRACT ZONING CHANGE? IF SO, ATTACH ANY CONDITIONS PROPOSED FOR A CONTRACT ZONE REQUEST.

13. ATTACH DOCUMENT SUPPORTING ZONING CHANGE AND RELATION TO CITY COMP PLAN.

RETURN FORM & EXHIBIT TO PLANNING DIVISION, CITY HALL, BANGOR, ME.

(PLEASE READ OTHER SIDE FOR FEES AND PROCESSING PROCEDURE)

* Zone Change: 1/2 acre OR Less

(35)



CITY COUNCIL ACTION

Council Meeting Date: June 24, 2024

Item No: 24-215

Responsible Dept: Planning

Action Requested: Ordinance

Map/Lot: 035-081

Title, Ordinance

Amending Chapter 165, Land Development Code, District Map to Re-zone a Property Located at 193 Warren Street from Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to Urban Residence 2 District (URD-2)

Summary

This ordinance would amend the Land Development Code, District Map to re-zone the property at Map-Lot 035-081, located at 193 Warren Street, from a combination of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). The total area requested to be changed is approximately 0.29 acres. The applicant and owner of record is Christopher Proulx.

This area is within the growth boundary shown in the 2022 Comprehensive Plan and the future land use map in the Plan shows this property in the Urban Neighborhood area which consists of "medium to high-density residential neighborhoods surrounding the Downtown". The Planning Division finds this proposed change to be in alignment with the Comprehensive Plan.

Committee Action

Committee: Planning Board

Meeting Date: July 2, 2024

Action:

For:

Against:

Staff Comments & Approvals

City Manager

City Solicitor

Finance Director

Introduced for: First Reading and Referral



CITY COUNCIL ORDINANCE

Date: June 24, 2024

Assigned to Councilor: Hawes

ORDINANCE, Amending Chapter 165, Land Development Code, District Map to Re-zone a Property Located at 193 Warren Street from Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to Urban Residence 2 District (URD-2).

WHEREAS, the land uses around the property consist primarily of multifamily and single family;

WHEREAS, the zoning around the property consists primarily of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2);

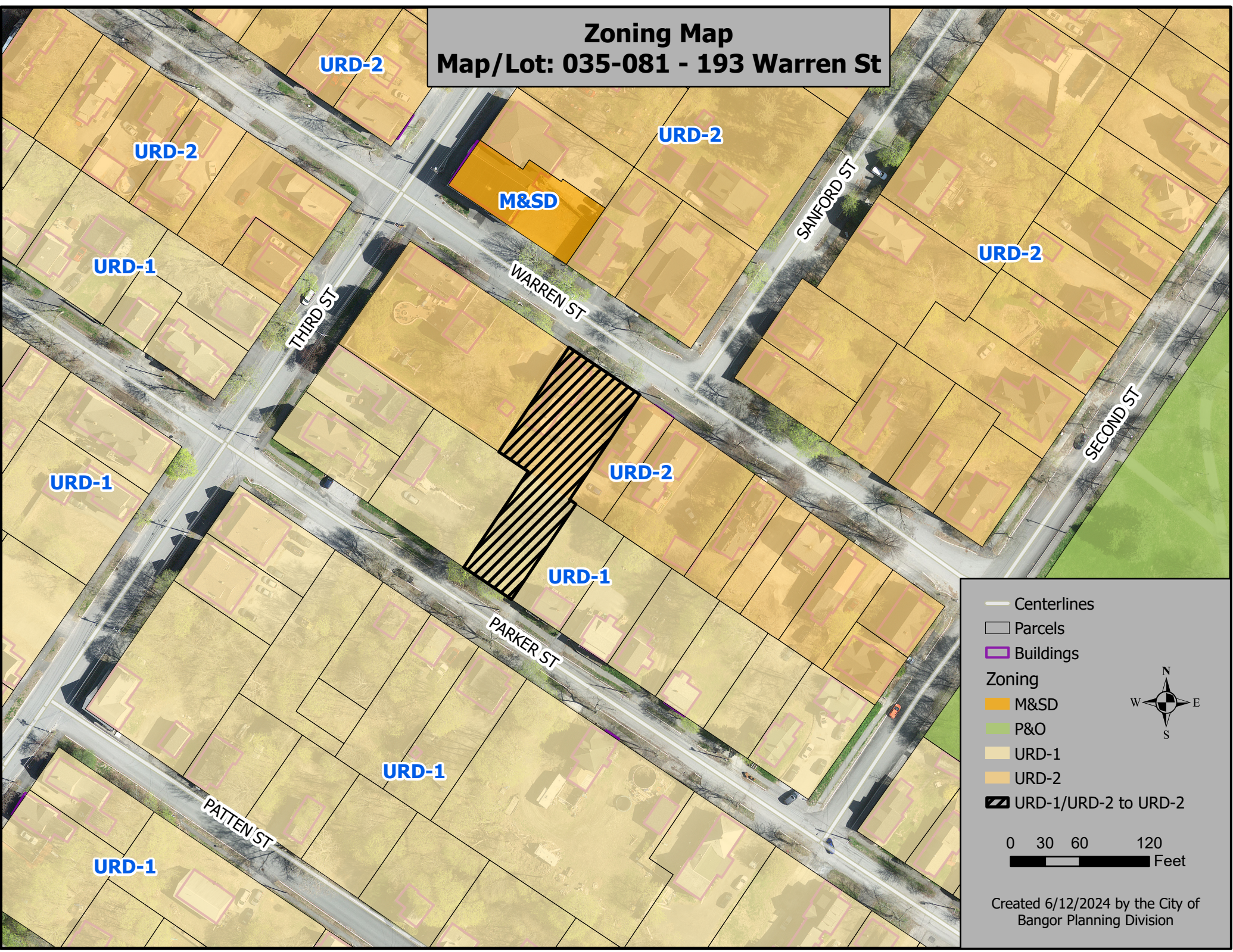
WHEREAS, the 2022 Comprehensive Plan and the future land use map in the Plan shows this property in the Urban Neighborhood area which consists of "medium to high-density residential neighborhoods surrounding the Downtown";

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BANGOR AS FOLLOWS, THAT

Chapter 165 of the Code of the City of Bangor, District Map, is amended to reclassify the property at Map-Lot 035-081, located at 193 Warren Street, from a combination of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). The total area requested to be changed is approximately 0.29 acres and is shown in the attached exhibit.

Zoning Map

Map/Lot: 035-081 - 193 Warren St



Centerlines
Parcels
Buildings

Zoning

- M&SD
- P&O
- URD-1
- URD-2
- URD-1/URD-2 to URD-2

0 30 60 120 Feet

Created 6/12/2024 by the City of Bangor Planning Division

NOTES

193
Warren
URD1 → URD2

RECEIPT

DATE 05/31/24 NO. 018971

RECEIVED FROM Christopher Proulx

ADDRESS 2111 Exeter Rd, Exeter, ME 04435

\$ 1771.09

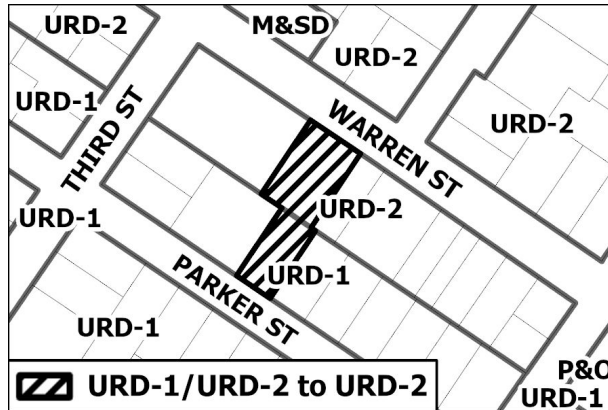
FOR Zone Change Application

ACCOUNT		HOW PAID	
AMT. OF ACCOUNT		CASH	
AMT. PAID		CHECK	522 ✓
BALANCE DUE		MONEY ORDER	

BY Brian Scannell

Please be advised that the Planning Board of the City of Bangor will hold a public hearing on Tuesday, July 2nd, 2024, beginning at 7:00 p.m. in the Lower Floor of Penquis CAP (262 Harlow Street) and will consider the following application:

To amend the Land Development Code by changing a parcel of land, Map-Lot 035-081, located at 193 Warren Street, from a combination of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). Said area of land contains approximately 0.29 acre total and is more particularly indicated on the map attached hereto and made part hereof. Applicant/Owner: Christopher Proulx.



To ask questions or submit comments, please call 207.992.4257 or email planning@bangormaine.gov. Please submit any comments by 4 pm on July 1st. Interested parties can also make an appointment by email or phone to meet with Planning Division staff. Bangor City Hall is open to attend the meeting in person. Interested parties may also attend the meeting on Zoom. Zoom details are published on the city's website (www.bangormaine.gov) on the home page under Public Meetings and Events. The meeting may also be streamed live via the City of Bangor's YouTube page; however, comments are not enabled on this page. Please call our office if you have questions about the process or participation in the hearing process.

Anja Collette,
Planning Officer

Newspaper advertisement dates June 20 & June 25, 2024



CITY OF BANGOR
 Planning Division

COMMUNITY & ECONOMIC DEVELOPMENT

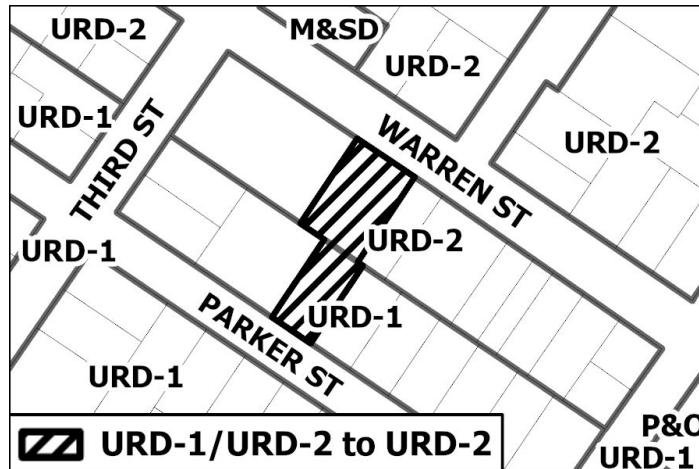
PUBLIC NOTICE

Date: June 18, 2024

Dear Property Owner:

Please be advised that the Planning Board of the City of Bangor will hold a public hearing on Tuesday, July 2nd, 2024, beginning at 7:00 p.m. in the Lower Floor (Back Side) of Penquis CAP (262 Harlow Street) and will consider the following application:

To amend the Land Development Code by changing a parcel of land, Map-Lot 035-081, located at 193 Warren Street, from a combination of Urban Residence 1 District (URD-1) and Urban Residence 2 District (URD-2) to only Urban Residence 2 District (URD-2). Said area of land contains approximately 0.29 acre total and is more particularly indicated on the map attached hereto and made part hereof. Applicant/Owner: Christopher Proulx.



To ask questions or submit comments, please call 207.992.4257 or email planning@bangormaine.gov. Please submit any comments by 4 pm on July 1st. Interested parties can also make an appointment by email or phone to meet with Planning Division staff.

Bangor City Hall is open to attend the meeting in person. Interested parties may also attend the meeting on Zoom. Zoom details are published on the city's website (www.bangormaine.gov) on the home page under Public Meetings and Events. The meeting may also be streamed live via the City of Bangor's YouTube page; however, comments are not enabled on this page. Please call our office if you have questions about the process or participation in the hearing process.

Anja Collette
 Planning Officer
 City of Bangor

ZONE CHANGE PROCESS

1. Applicant files zone change request in the Planning Office.
2. The Planning Office places this ordinance amendment request on the next regularly scheduled meeting of the City Council.
3. The City Council refers the proposed zone change to the Planning Board for public hearing.
4. The Planning Board conducts a public hearing.
5. The Planning Board then makes its recommendations to the City Council.
6. After receipt of the Planning Board's recommendation, the City Council votes to either approve or reject the proposed zone change request.

Only the City Council can change zoning, as it is an ordinance amendment.

ABOUT THIS PROPOSED CHANGE

CURRENT PROPERTY ZONE: Urban Residence District 1 (URD-1) - § 165-88

- **Allowed Uses**
 - One-family detached dwellings, with additional dwelling units permitted given the following:
 - The lot is inside the Growth Boundary defined in the City's most recently adopted Comprehensive Plan.
 - If no dwelling exists on a lot, up to four units are allowed, either detached or attached.
 - If one dwelling unit exists on the lot, up to two additional units are allowed, one being attached to or within the existing dwelling and one being detached.
 - If two dwelling units exist on a lot, no additional units are allowed.
 - If dwelling units are demolished after the date this section is adopted and the demolition results in an empty lot, there can be no increase in the number of units above what existed on the lot prior to demolition.
 - Home occupations or professions (subject to the requirements of Article IV).
 - Community living arrangements, in accordance with 30-A M.R.S.A. § 4357-A, as may be amended.
 - Small day-care center, provided that it is operated at a dwelling by a resident or residents of the dwelling.
 - Accessory dwelling units, under the conditions required by § 165-31.2.
 - Minor essential service facilities, under the conditions required by § 165-80.3.
 - Hosted and non-hosted short-term rentals (subject to licensing requirements in Chapter 1.

- Accessory uses on the same lot and customarily incidental to and subordinate to the above uses or to an approved conditional use under Subsection D below.
- Conditional Uses
 - Places of worship and nursing homes meeting the requirements of § 165-9 and Article XIX, provided that such site developments:
 - Are located on a major arterial street.
 - Have an impervious surface ratio of no more than .30.5
 - Boardinghouses that are located on a major arterial street.

PROPOSED PROPERTY ZONE: Urban Residence District 2 (URD-2) - § 165-89

- Allowed Uses
 - One-family, two-family, three-family and four-family detached dwellings.
 - An affordable housing density bonus may be allowed, subject to the requirements of Article XXI.
 - Small day-care center.
 - Home occupations or professions (subject to the requirements of Article IV).
 - Community living arrangements, in accordance with 30-A M.R.S.A. § 4357-A, as may be amended.
 - Minor essential service facilities, under the conditions required by § 65-80.3.
 - Hosted and non-hosted short-term rentals (subject to licensing requirements in Chapter 254).
 - Accessory uses on the same lot and customarily incidental to and subordinate to the above uses or to an approved conditional use under Subsection D below.
- Conditional Uses
 - Places of worship and nursing homes meeting the requirements of § 165-9 and Article XIX and located on a major arterial street.
 - Boardinghouses that are located on a major arterial street.



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR
Planning Division

	Maximum District Height (Feet)	Minimum Lot Area (Square Feet)	Maximum Lot Coverage	Minimum Lot Width (Feet)	Minimum Front Yard Depth (Feet)	Minimum Side Yard Depth (Feet)	Minimum Rear Yard Depth (Feet)	Maximum Impervious Surface Ratio	Minimum Water Setback (Feet)	Maximum Floor Area Ratio
Urban Residence District 1	35	5,000	35%	50	10*	5	15; 5 for accessory structure	0.75	--	--

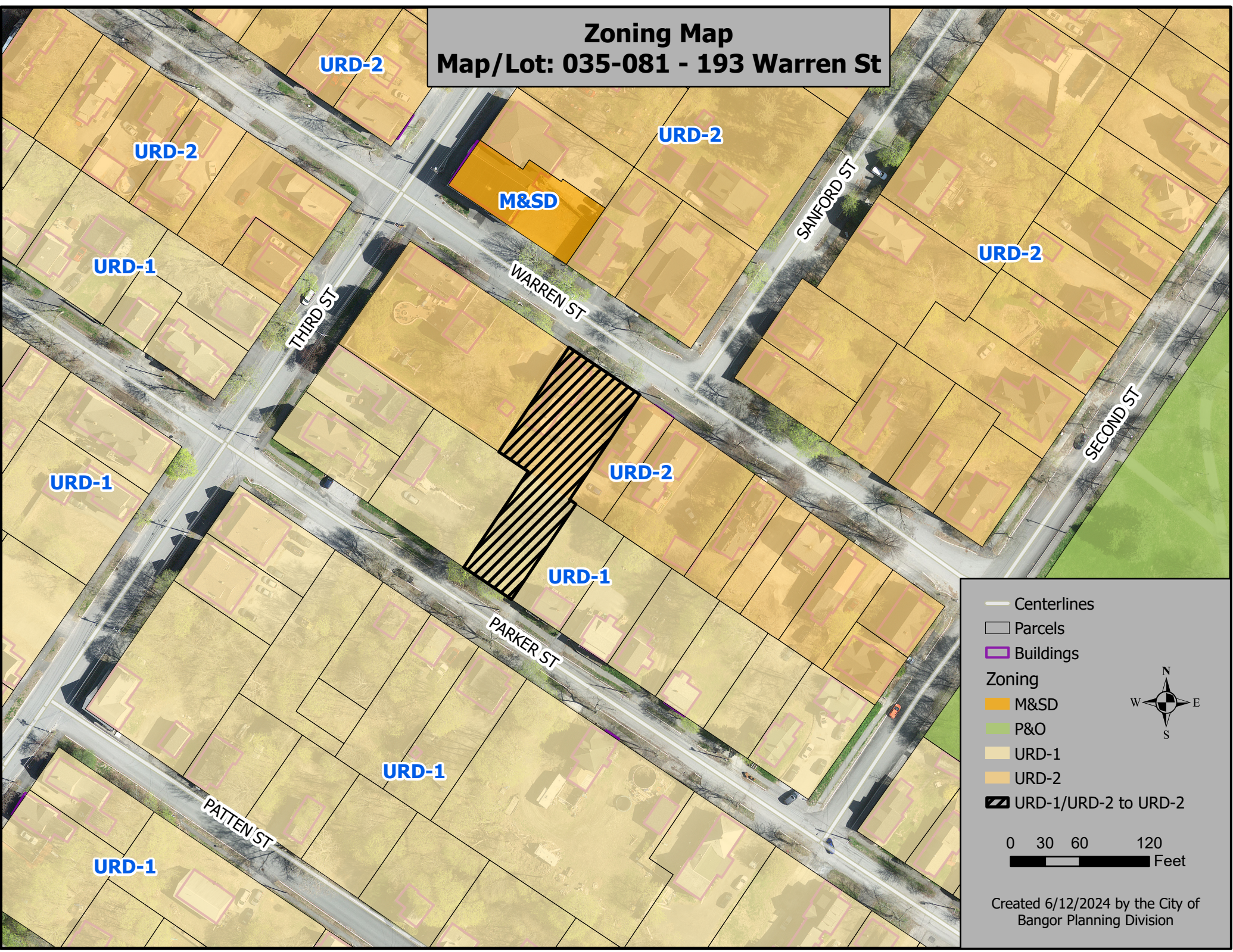
* Minimum setback for open porches from the front property line is 10ft

	Maximum District Height (Feet)	Minimum Lot Area (Square Feet)	Maximum Lot Coverage	Minimum Lot Width (Feet)	Minimum Front Yard Depth (Feet)	Minimum Side Yard Depth (Feet)	Minimum Rear Yard Depth (Feet)	Maximum Impervious Surface Ratio	Minimum Water Setback (Feet)	Maximum Floor Area Ratio
Urban Residence District 2	40	*	40%	50	10*	5	15; 5 for accessory structure	0.8	--	--

* Minimum setback for open porches from the front property line is 10ft

Zoning Map

Map/Lot: 035-081 - 193 Warren St



Centerlines
Parcels
Buildings

Zoning

- M&SD
- P&O
- URD-1
- URD-2
- URD-1/URD-2 to URD-2

0 30 60 120 Feet

Created 6/12/2024 by the City of Bangor Planning Division

193 WARREN STREET - ABUTTERS WITHIN 100FT			
Owner	Owner 2	Owner Address 1	Owner Address 2
Jonnie Jean Morrison	Ruth & Jon Morrison	200 Warren Street	Bangor, Maine 04401
Roople Unia		16 Black Sparrow Drive	Portland, Maine 04102
Massachusetts Mutual Life Insurance Company		1295 State Street	Springfield, MA 01111
R&N Luxury Holding, LLC		122 Third Street	Bangor, Maine 04401
Andrew Sanderson		1815 Randolph Street NW	Washington, DC 20011
Larry D. Dorr		140 Third Street	Bangor, Maine 04401
Abigail Paige Shultz	Hunter Bailey Shultz	83 Parker Street	Bangor, Maine 04401
Lillian Waren	Nathan Warner	69 Parker Street	Bangor, Maine 04401
Richard A. England III	Heidi L. England	65 Parker Street	Bangor, Maine 04401
Tom Hale		61 Parker Street	Bangor, Maine 04401
Timothy L. Kelly	Lisa A. Kelly	132 Third Street	Bangor, Maine 04401
Jill S. Hoelzer		195 Warren Street	Bangor, Maine 04401
Ronald E. Megquier	Pamela A. Megquier	197 Warren Street	Bangor, Maine 04401
Carlotta A. Verge		78 Parker Street	Bangor, Maine 04401
Gilpin Holdings, LLC		19 Sunrise Lane	Hampden, Maine 04444
Christopher M. Gross	Samantha D. Chapman	74 Parker Street	Bangor, Maine 04401
Jan B. Hodgkins		72 Parker Street	Bangor, Maine 04401
Sean M. Sweeney	Rebecca J. Grant Sweeney	62 Parker Street	Bangor, Maine 04401



COMMUNITY & ECONOMIC DEVELOPMENT

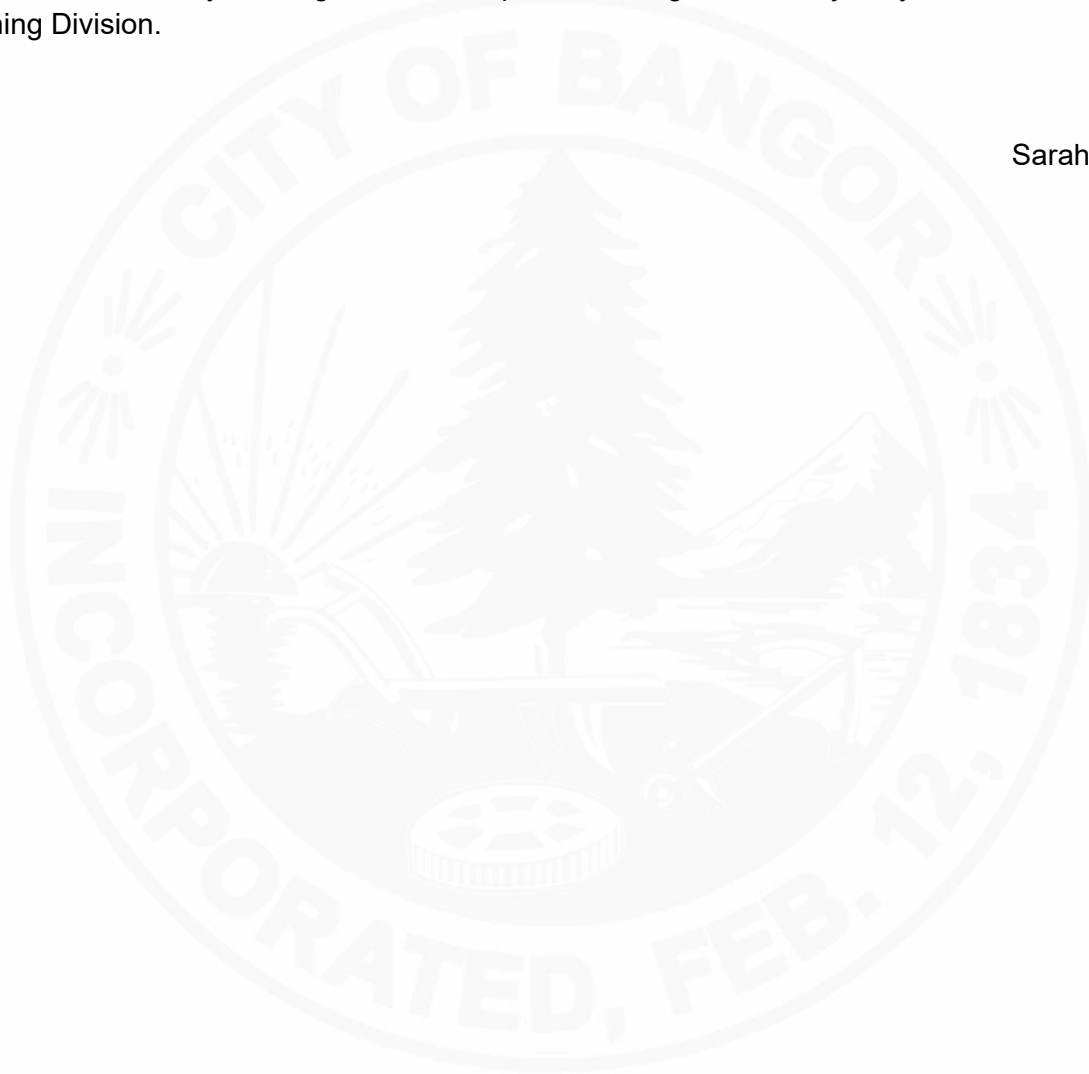
CITY OF BANGOR

PLANNING DIVISION

Re: ZC – 193 Warren Street – Christopher Proulx – Notice of Mailing

On June 20, 2024, the Public Notice for 193 Warren Street – Christopher Proulx, advising that the Planning Board of the City of Bangor will hold a public hearing on Tuesday, July 2, 2024, was mailed by the Planning Division.

Sarah Maquillan





CITY COUNCIL ACTION

Council Meeting Date: June 24, 2024

Item No: 24-214

Responsible Dept: Planning

Action Requested: Ordinance

Map/Lot: R35-054-B

Title, Ordinance

Amending Chapter 165, Land Development Code, District Map to Re-zone a Property Located on Fourteenth Street from Urban Residence 1 District (URD-1) to Multifamily and Service (M&SD).

Summary

This ordinance would amend the Land Development Code, District Map to re-zone the property at Map-Lot R35-054-B, located on Fourteenth Street, from Urban Residence 1 District (URD-1) to Multifamily and Service (M&SD). The total area requested to be changed is approximately 2.59 acres. The applicant and owner of record is City of Bangor.

This area is within the growth boundary shown in the 2022 Comprehensive Plan and the future land use map in the Plan shows this property in the Urban Neighborhood area which consists of "medium to high-density residential neighborhoods surrounding the Downtown and encompassing most of the City's historic residential areas". The Planning Division finds this proposed change to be in alignment with the Comprehensive Plan.

Committee Action

Committee: Planning Board

Meeting Date: July 2, 2024

Action:

For:

Against:

Staff Comments & Approvals

City Manager

City Solicitor

Finance Director

Introduced for: First Reading and Referral



CITY COUNCIL ORDINANCE

Date: June 24, 2024

Assigned to Councilor: Leonard

ORDINANCE, Amending Chapter 165, Land Development Code, District Map to Re-zone a Property Located at 14th Street from Urban Residence 1 District (URD-1) to Multifamily and Service (M&SD).

WHEREAS, the land uses around the property consist primarily of single family and some multi-family homes to the south and east and parks and open space areas to the north and west;

WHEREAS, the zoning around the property consists primarily of Urban Residence District 1 (URD-1), with Resource Protection (RP) and Park and Open Space (P&O) to the north surrounding the Kenduskeag River, and Government & Institutional Service District (G&ISD) to the west encompassing Mount Pleasant Cemetery;

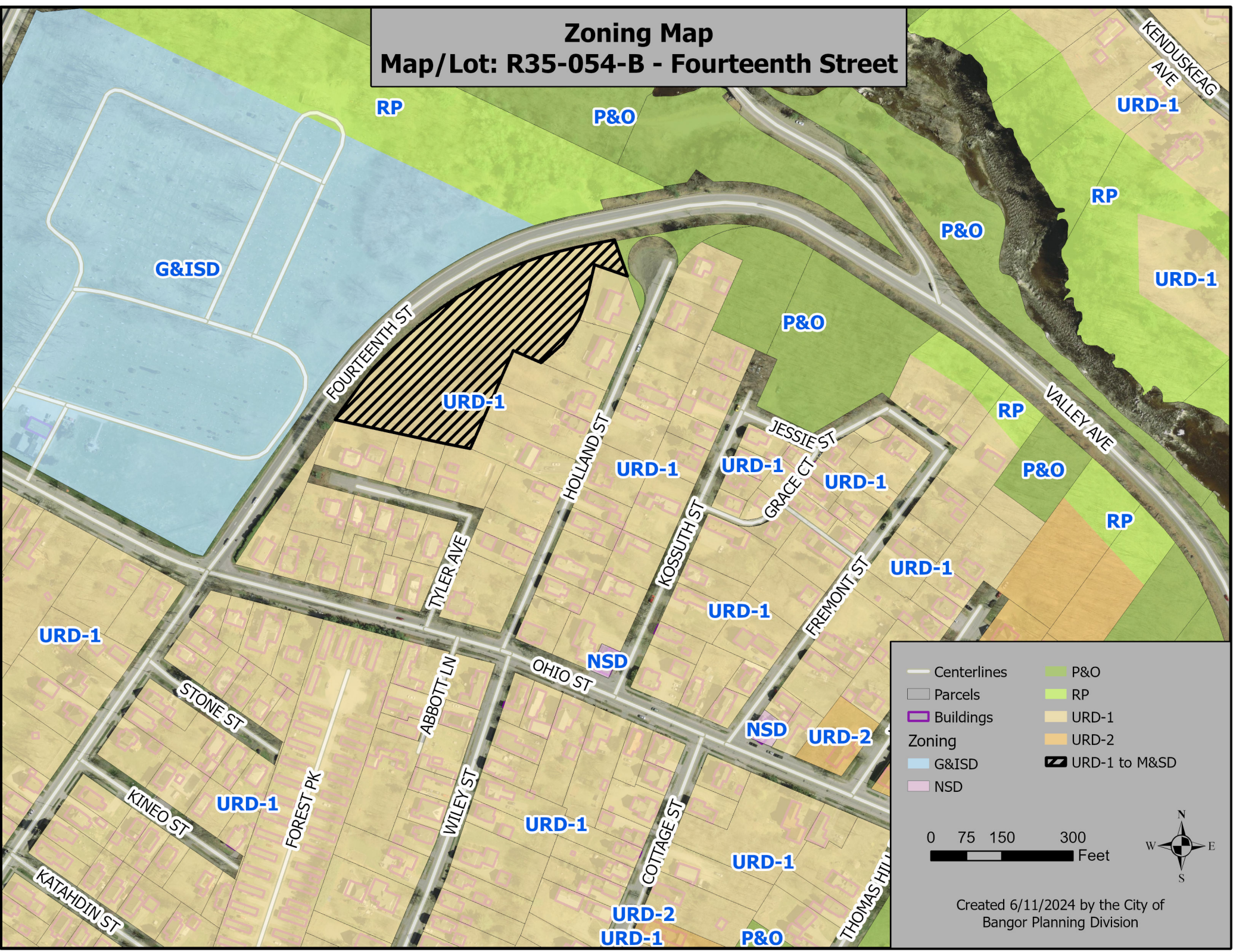
WHEREAS, the future land use map in the 2022 Comprehensive Plan shows this property in the Urban Neighborhood area which consists of "medium to high-density residential neighborhoods surrounding the Downtown and encompassing most of the City's historic residential areas";

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BANGOR AS FOLLOWS, THAT

Chapter 165 of the Code of the City of Bangor, District Map, is amended to reclassify the property at Map-Lot R35-054-B, located on Fourteenth Street, from Urban Residence 1 District (URD-1) to Multifamily and Service (M&SD). The total area requested to be changed is approximately 2.59 acres and is shown in the attached exhibit.

Zoning Map

Map/Lot: R35-054-B - Fourteenth Street



— Centerlines	■ P&O
▭ Parcels	■ RP
▭ Buildings	■ URD-1
Zoning	■ URD-2
■ G&ISD	▨ URD-1 to M&SD
■ NSD	

0 75 150 300 Feet

Created 6/11/2024 by the City of Bangor Planning Division



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

July 2, 2024

Bangor Planning Board

Findings and Decision

Applicant/Owner: Giri Bangor Odlin LLC
225 West Squantum Street, Suite 200
Quincy, MA 02171

Agent: Acorn Engineering
158 Danforth Street
Portland, ME 04102

Property Address: 327 Odlin Road, Map-Lot R18-009

Zoning District: General Commercial and Service District (GC&S)

Permit Request: Land Development Permit – Major Site Development

Description: Renovation of existing parking and landscaped area

Public Hearing Date: July 2, 2024

Permitting Requirements: §165-111.A(3)(4)(5)

Board Members Present:

Board Vote:

I. The Record

The Planning Board reviewed the following exhibits:

1. Final Land Development Permit application, received from Acorn Engineering on 06.26.2024
2. Final site plans, received from Acorn Engineering on 06.24.2024
3. Receipt for payment received on 05.31.2024
4. Cover letter, received from Acorn Engineering on 05.31.2024
5. Deed, received from Acorn Engineering on 05.21.2024

6. Certificate of good standing, received from Acorn Engineering on 05.31.2024
7. Land Development Permit checklist sent to Acorn Engineering on 06.13.2024
8. Fire Prevention sign-off, received via email on 06.14.2024
9. Applicant response to staff comments, received on 06.20.2024
10. Comments from Bangor Water District, received via email on 06.20.2024
11. Code Enforcement sign-off, received via email on 06.24.2024
12. Engineering sign-off, received via email on 06.24.2024
13. Stormwater sign-off, received via email on 06.25.2024
14. Water District sign-off, received via email on 06.25.2024
15. Public notice sent to abutters within 100ft of subject property on 06.25.2024
16. List of abutters within 100ft of subject property, generated by staff on 06.25.2024
17. Notice of mailing by Planning Analyst Brian Scannell on 06.25.2024
18. Lighting Technical Sheets, received via email on 06.20.24
19. Correspondence with applicant and Fire Department regarding fire/water service, received via email on 06.27.24

II. Project Description and Permit Requirements

The Project will consist of the renovation of existing parking and landscaped area, disturbing 21,000 square feet of land. This is a modification of a previously approved site plan for the lot.

The project will take place on Map-Lot R18-009, which is in the General Commercial and Service District (GC&S). The lot is currently used as a hotel. Since the project creates off-street parking containing 20 or more spaces; requires filling, grading, and earth moving; and is a permitted use in the GC&S district, the proposed development must meet the requirements for Land Development Permit (§165-111.A(3-5)).

III. Procedural Background

1. The Application was deemed complete on July 2, 2024.
2. The Applicant paid all applicable fees (Exhibit 3).
3. The proposed Project is a Major Site Development

IV. Applicable Provisions and Findings

Part 1 – The Project meets the requirements of Articles II through XII

1. The Board finds that, based on Exhibits 2 and 13, the applicant satisfied Land Development Code §165-33's requirements regarding filling, grading and earthmoving activities and §165-33.1's requirements regarding Erosion and Sediment Control best practices.
2. The Board finds that, based on Exhibits 2 and 11, the applicant satisfied Land

Development Code §165-68's requirements for lot frontage.

3. The Board finds that, based on Exhibits 2, 9, and 11, the applicant satisfied Land Development Code §165-72 requiring adequate parking spaces and a minimum of 4 distributed handicapped accessible spaces.
4. The Board finds that, based on Exhibits 2, 9, 11, and 12, the applicant satisfied Land Development Code §165-73 regarding parking area location, setbacks, and screening and §165-74 regarding minimum design standards for surface parking and parking lot design.
5. The Board finds that, based on Exhibits 2 and 11, the applicant satisfied Land Development Code §165-76 requiring 1 loading space and §165-77 through §165-78 specifying the loading zone dimensions and general requirements.
6. The Board finds that, based on Exhibits 2 and 14, the applicant satisfied Land Development Code §165-79 & §165-80, requiring adequate connection to necessary utilities, including public water and sewer when possible.
7. The Board finds that, based on Exhibits 2 and 18, the applicant satisfied Land Development Code §165-81 requiring appropriate outdoor lighting and the prevention of light trespass onto adjacent properties and streets.
8. The Board finds that, based on Exhibits 2, 8, 9, and 14, the applicant satisfied the Land Development Code §165-82 requiring adequate fire protection.
9. The Board finds that, based on Exhibits 2 and 18, the applicant satisfied the Land Development Code §165-83 requiring adequate electrical services.
10. The Board finds that, based on Exhibits 2 and 13, the applicant satisfied the Land Development Code §165-84 requiring provisions for surface water and storm drainage.

Part 2 – The Project meets the District Site Development Standards under Article XIX

The Board finds that, based on Exhibits 2, 9, and 11, the applicant satisfied §165-135 of the Land Development Code regarding impervious surface ratio, buffer yards, and plantings.

Part 3 – The Project meets the requirements of §165-102 – General Commercial and Service (GC&S)

The Board finds that, based on the findings made in Parts 1 and 2 of Section IV of this document, the Project meets the requirements of §165-102 for a permitted use (hotel) within the General Commercial and Service District (GC&S).

Part 4 – The Project meets the requirements of §165-114 – Land Development Approval Standards

1. The Board finds that, based on Exhibits 2, 11, and 12, the applicant satisfied the requirements of Land Development Code §165-114.B-C, regarding the proposed parking and loading layout and the proposed access drives from the site to any public right-of-way being arranged in a reasonable and safe configuration, including the provision for safe pedestrian travel to all on-site uses.
2. The Board finds that, based on Exhibits 2 and 13, the applicant satisfied Land Development Code §165-114.D's requirements for preventing adverse effects from stormwater runoff and ensuring adequate capacity of stormwater collection systems to handle runoff from the development.
3. The Board finds that, based on Exhibits 2 and 18, the applicant satisfied Land Development Code §165-114.E's requirement that all outdoor lighting shall be designed, installed, and maintained to avoid unreasonable adverse effects from light pollution.
4. The Board finds that, based on Exhibits 2, 9, and 11, the applicant satisfied Land Development Code §165-114.F's requirements for landscaping.

V. Decision

The Board finds that the project meets the requirements for a Land Development Permit for a Major Site Development and therefore, the Board grants the Land Development Permit for the proposed Project.

VI. General Permit Requirements:

- A. This permit does not relieve the applicant from any other state or federal permits that may be required for the project.
- B. Prior to construction, the applicant should contact the Code Enforcement Office for any additional permits that may be required.
- C. Applicant must commence construction within one year from the date of approval and complete the project by July 2, 2026, unless extensions of time are granted per the provision of Chapter 165-113E.

- D. No certificate of occupancy for any structure will be issued by the Code Enforcement Division until the property for which the certificate is sought is in compliance with all applicable regulations, including but not limited to building, zoning, and stormwater requirements. A temporary certificate of occupancy may be issued when necessary under the provisions of § [165-113G of the City's Land Development Code](#).
- E. Upon completion, a digital as-built plan or plans shall be submitted to the Code Enforcement Officer. Additionally, a certificate of compliance stamped by a registered professional engineer or a registered land surveyor must be submitted to the Code Enforcement Office indicating that the site development has been completed in accordance with the approved revised plan.

Failure to comply with the conditions listed above constitutes a violation of the Bangor Land Development Code as prescribed in Chapter 165-10G.

This If you should have any questions or desire further information, please do not hesitate to give the Planning Division a call at 207.992.4280.

Sincerely,

City of Bangor Planning Board

_____	_____
_____	_____
_____	_____

CC: City of Bangor Planning Division
City of Bangor Code Enforcement Division

CITY OF BANGOR
LAND DEVELOPMENT PERMIT APPLICATION

Paid 798.00
via CC in
Treasury on 5.31.24
SM

Permit No.: _____
Date: May 22, 2024

Site Development Plan: *Conditional Use: _____ *Both: _____
Subdivision Development: _____ *Preliminary: _____ Final: _____
*Mobilehome Park: _____ Note: This submission is a modification of a previously approved
Land Development Permit approved August 8, 2018.

Applicant: ~~Giri Hotel Management, C/O Jon Ketchum~~ Giri Bangor Odlin LLC* Telephone No.: (207) 290-2478
Address: 225 W. Squantum St. Suite 200 Quincy, MA 02171

Location of Site: 327 Odlin Rd. Map: R18 Lot: 09

Watershed: Sucker Brook Total Area Proposed to be Disturbed: 21,000 SF

Owner of Site if different from applicant: NA Zoning District: GC & S

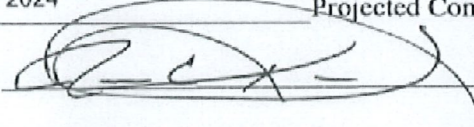
Address: NA

Description of interest of applicant in site, if not owner (e.g., owner, lease, option, purchase & sales agreement):
Owner If not owner include copy of said agreement

Describe proposed use and indicate floor area (If combination of uses, give floor area devoted to each):
Renovation of existing parking and landscaped area at Home2 Suites Hotel
Existing GFA = 52,283 | No proposed increase in GFA

LID techniques help retain stormwater on site. They include such things as pervious pavement, rain gardens, bioretention cells, and infiltration systems.
Were LID techniques used on this project? Yes If not, why? _____

Projected Starting Date: Summer 2024 Projected Completion Date: Fall 2024

Signature of applicant(s) or agent: 

Submittal Requirements

- Submittal Requirements of development types are described in the Land Development Code for:
1. Site Development Plan, Chapter 165, Article XVI, Section 112
 2. Subdivisions, Chapter 165, Article XVIII, Sections 126 and 128
 3. Mobilehome Parks, Chapter 165, Article XVIII, Section 19

Processing Fees: \$798.00 Advertising Fees: _____

A COMPLETED APPLICATION FORM, PLAN SUBMITTALS, EVIDENCE OF STANDING, PROCESSING AND ADVERTISING FEES ARE ALL REQUIRED IN ORDER TO HAVE A COMPLETE APPLICATION.

Date Received by Planning Division Office: _____

Decision and reason of Code Enforcement Office for Conditional Use: _____

Action taken by Planning Board: _____

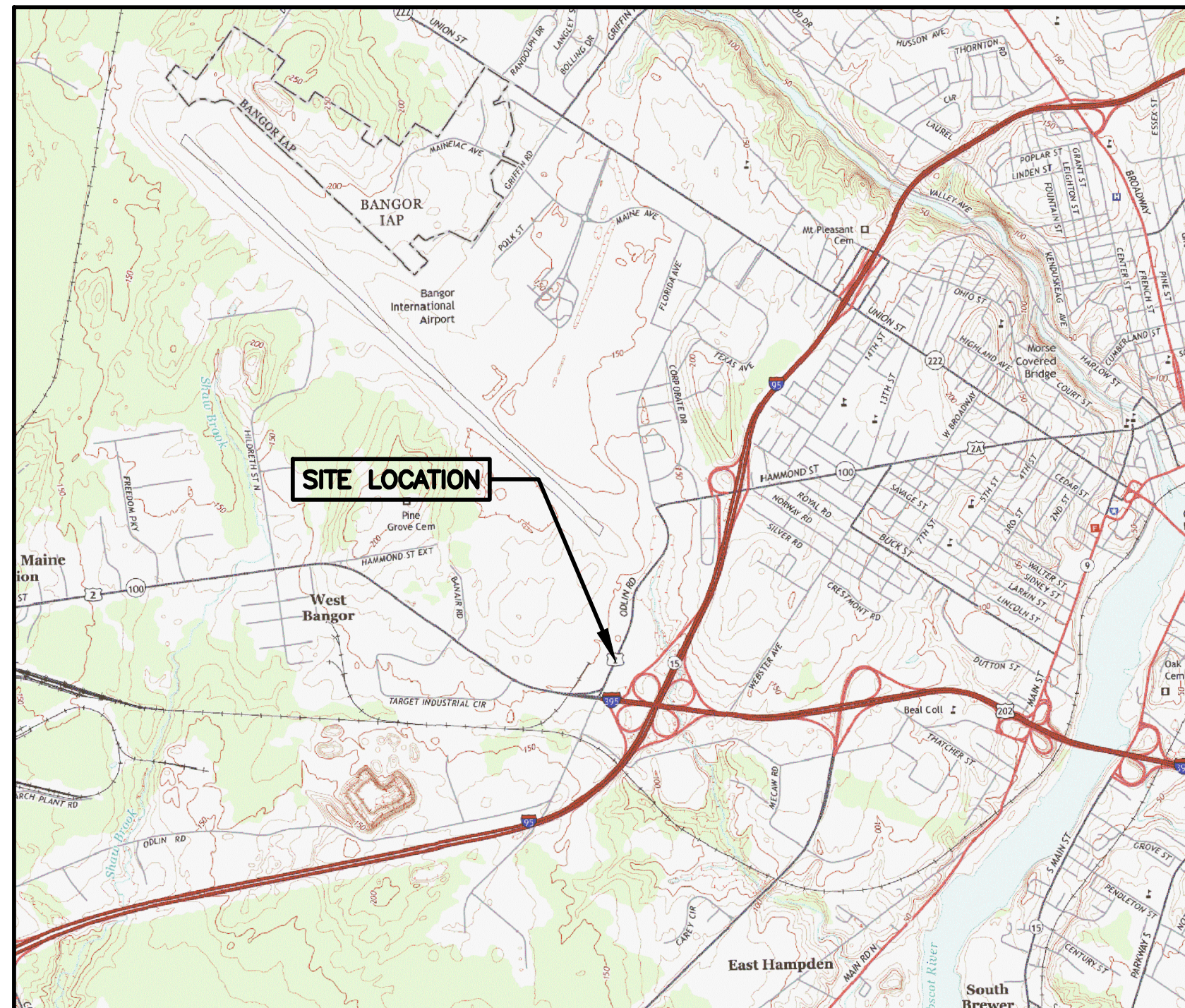
* Projects requiring a Public Hearing also require Advertising Fees

* applicant updated 6.26.2024 SM

HILTON HOME2 REDEVELOPMENT

GIRI HOTEL MANAGEMENT
BANGOR, MAINE

ISSUED FOR	BY	DATE
PDR	WHS	7/17/16
100% REVIEW	WHS	4/20/18
FIRE MARSHALL	WHS	5/11/18
PRELIM SITE PLAN	WHS	6/6/18
FINAL SET	WHS	7/24/18
CONSTRUCTION	WHS	8/23/21
PH II REVIEW	WHS	4/28/24
PH II PERMIT	WHS	5/22/24
PH II PERMIT RESPONSE	WHS	8/18/24



LOCATION MAP
N.T.S.

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- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX 2005 EXISTING CONDITIONS PLAN - BY PLISGA & DAY
- C-10 SITE PLAN
- L-1 LANDSCAPE PLAN
- I-1 IRRIGATION PLAN
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- C-30 GRADING, DRAINAGE, & EROSION CONTROL PLAN
- C-40 SITE DETAILS - 1
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CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

LEGEND

EXISTING

REFER TO THE EXISTING CONDITIONS PLAN FOR ADDITIONAL INFORMATION

- PAVERS
- GREEN SPACE
- CONCRETE SIDEWALK
- UTILITY PAVEMENT CUTS
- STRIPING
- SEDIMENTATION BARRIER
- EDGE OF EX. PAVEMENT
- CURB
- SIGN
- LAMP OR LIGHT POLE
- UTILITY POLE
- GUY WIRE
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE
- CATCH BASIN
- DRAIN MANHOLE
- FIELD DRAIN
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- MINOR CONTOURS (1 FT)
- MAJOR CONTOURS (5 FT)
- GAS LINE
- STORM DRAIN LINE
- SEWER LINE
- EXISTING/PROPOSED BUILDING
- FOUNDATION DRAIN
- OVERHEAD ELECTRICAL/TELEPHONE/CABLE
- PROPERTY LINE
- SETBACKS

PROPOSED

- PAVERS
- GREEN SPACE
- CONCRETE SIDEWALK
- UTILITY PAVEMENT CUTS
- STRIPING
- SEDIMENTATION BARRIER
- EDGE OF EX. PAVEMENT
- CURB
- SIGN
- LAMP OR LIGHT POLE
- UTILITY POLE
- GUY WIRE
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE
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- STORM DRAIN LINE
- SEWER LINE
- EXISTING/PROPOSED BUILDING
- FOUNDATION DRAIN
- OVERHEAD ELECTRICAL/TELEPHONE/CABLE
- PROPERTY LINE
- SETBACKS

UTILITIES

SEWER:

DEPARTMENT OF WATER QUALITY
614 STATE STREET
BANGOR, MAINE 04401
CONTACT: ANDY RUDZINSKI
(207) 992-4477

WATER:

BANGOR WATER DISTRICT
614 STATE STREET
BANGOR, MAINE 04401
CONTACT: KYLE KILLIP
(207) 947-4516 EXT. 417

ELECTRIC:

VERSANT MAINE
970 ILLINOIS AVENUE
BANGOR, MAINE 04402-0932
CONTACT: DON KING
(207) 973-2696

TELEPHONE:

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT COMMUNICATIONS)
SOUTH CHINA, MAINE 04101
CONTACT: BRIAN SMITH
(207) 991-6723

CABLE:

SPECTRUM CABLE
444 PERRY ROAD
BANGOR, MAINE 04401
CONTACT: MARK PELLETIER

NATURAL GAS:

BANGOR NATURAL GAS
498 MAINE AVENUE
BANGOR, ME 04401
CONTACT: ANDREW BARROWMAN
(207) 922-6211

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FEE	FINISH FLOOR ELEVATION
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TWC	TIME WARNER CABLE
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
UGE/T/C	UNDERGROUND ELECTRIC/TELEPHONE/CABLE

PROJECT TEAM

DEVELOPER:

GIRI HOTEL MANAGEMENT
QUINCY, MASSACHUSETTS
CONTACT: ASH SANGANI
(617) 770-0045

ARCHITECT:

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414

SURVEYOR:

PLISGA & DAY LAND SURVEYORS
BANGOR, MAINE
(207) 947-0019

STRUCTURAL ENGINEER:

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

CONSTRUCTION MANAGEMENT CO.:

DEVELOPMENT SERVICES OF NEW ENGLAND, LLC
FREEPORT, MAINE
CONTACT: ALAN NICHOLS
(207) 522-0688

TRAFFIC ENGINEER:

TRAFFIC SOLUTIONS
PORTLAND, MAINE
CONTACT: BILL BRAY, P.E.
(207) 774-3603

PERMIT LEVEL
NOT FOR
CONSTRUCTION

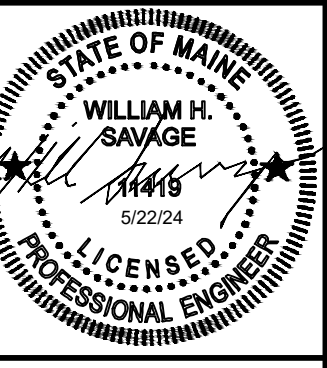
DRAWING NAME: COVER SHEET & LEGEND
PROJECT NAME: HILTON HOME2 REDEVELOPMENT
CLIENT: GIRI HOTEL MANAGEMENT
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC. ENGINEERING, INC.

158 DANFORTH ST. PORTLAND MAINE 04102
(207) 775-2855

THIS PLAN SHALL NOT BE ADOPTED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS AUTHORIZED WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1071_CIVIL
JN:	1071
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	SJL/FAB
CHECKED BY:	WHS



DRAWING NO.
C-01

GENERAL NOTES:

- PHASING OF PROJECT AND ANY ASSOCIATED PERMITTING TO BE COMPLETED BY CONTRACTOR.
- THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE, ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
- ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF BANGOR, AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
- THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS STAMPED "AS-BUILT".
- THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
- EXISTING CONDITIONS, BOUNDARY SURVEY AND TOPOGRAPHIC FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY PLUSGA & DAY LAND SURVEYORS FOR LODGING EQUITIES LLC, DATED JULY 11, 2005.
- STRUCTURAL ENGINEER MAY REQUIRE A GEOTECHNICAL REPORT. THE CONTRACTOR SHALL REQUEST AND REVIEW THE GEOTECHNICAL REPORT PRIOR TO SUBMITTING A BID. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT IF ONE IS DEVELOPED FOR THE STRUCTURAL ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AND ALL ADJACENT PROPERTIES AT ALL TIMES INCLUDING ACCESS THROUGH THE PROPERTY VIA EXISTING EASEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE BANGOR PUBLIC SAFETY DEPARTMENT ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
- CONTRACTOR SHALL REMAIN RESPONSIBLE ANTICIPATED PROJECT SCHEDULE AND CLOSURES. CONTRACTOR SHALL REMAIN RESPONSIBLE FOR CONSTRUCTION MANAGEMENT, MEANS AND METHODS, TRAFFIC CONTROL, ETC. SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
- THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. PHOTOGRAPHS SHALL BE DOCUMENTED AT A MINIMUM.

CIVIL SITE NOTES:

- THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
- ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
- CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
- DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
- ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
- ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
- UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
- THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
- DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED.
- TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE.
- THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

SPECIAL INSPECTION NOTES:

- ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS, AS WELL AS SITE DRAINAGE, SHALL BE REVIEWED BY THE PROJECT ENGINEER AND/OR THE PROJECT GEOTECHNICAL ENGINEER.
- NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT.
- NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
- REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
- SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
- SPECIAL INSPECTION FIRM SHALL BE EMPLOYED BY GIRI HOTEL MANAGEMENT AND COORDINATED BY THE CONTRACTOR.

LAYOUT NOTES:

- MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, OR ELEVATION AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A REGISTERED LAND SURVEYOR.
- ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
- SIGNAGE, STRIPING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF BANGOR, MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED FOUNDATION CORNERS.
- CONTRACTOR TO ENSURE THAT DRIVEWAYS AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND IN USE AT ALL TIMES.

PERMITTING NOTES

- CONSTRUCTION ACTIVITIES UNDERTAKEN IN 2021 AS PART OF PHASE I OF THIS PROJECT WERE SUBJECT TO THE TERMS AND CONDITIONS OF THE SITE DEVELOPMENT PLAN APPROVAL ADDRESSED TO GIRI HOTEL MANAGEMENT FROM THE CITY OF BANGOR PLANNING DIVISION, ISSUED AUGUST 8, 2018. AS THIS APPROVAL HAS LAPSED, THE PHASE II PROJECT ACTIVITIES PROPOSED HEREIN ARE SUBJECT TO SITE DEVELOPMENT PLAN AMENDMENT APPROVAL BY THE CITY OF BANGOR PLANNING DIVISION. IT IS ANTICIPATED THAT THE AMENDED SITE PLAN WILL UNDERGO REVIEW BY BANGOR PLANNING STAFF IN THE SECOND QUARTER OF 2024.
- THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

GRADING AND DRAINAGE NOTES:

- TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY LOAM WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
- THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE OWNER. PRIOR TO THE CONTRACTOR PRICING THE WORK THE CONTRACTOR SHALL REQUEST PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
- THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
- NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS.
- ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N=0.012 OR LESS.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

EROSION CONTROL NOTES:

- ALL ROUTINE MAINTENANCE ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
- PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
- ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY OF BANGOR. THE CONTRACTOR SHALL REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET..
- PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
- REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

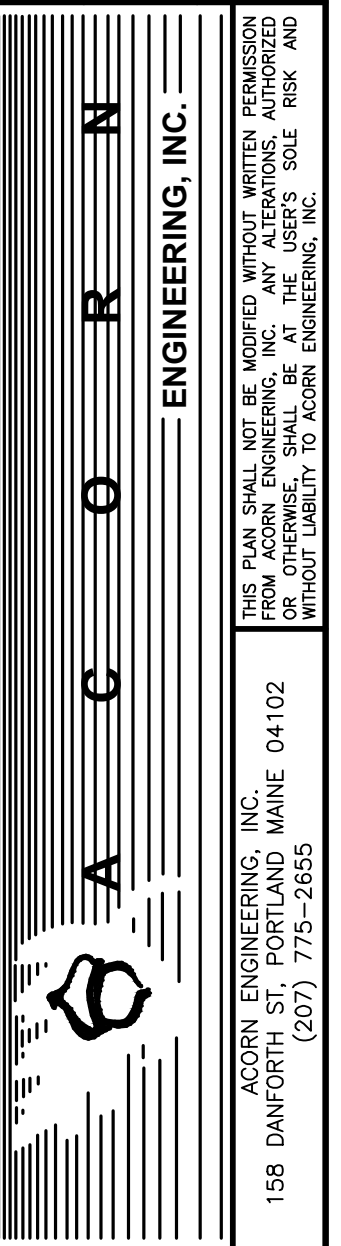
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
- CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES.
- ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
- SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
- CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
- THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN ON SHEET C-4.3.
- WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE BANGOR WATER DISTRICT DOCUMENT "WATER CONSTRUCTION SPECIFICATIONS AND PROCEDURES", MOST RECENT REVISION.
- ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF BANGOR, STATE OF MAINE, AND

AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.

- CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE BANGOR WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
- ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE BANGOR WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
- COORDINATE EXIT POINT FOR SECONDARY SERVICE WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN ENGINEERING WITHIN THE UTILITY PLAN.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF BANGOR AND SUBMIT A MAINTENANCE OF TRAFFIC PLAN PRIOR TO ANY WORK.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

ISSUED FOR	BY DATE
PDR	WHS 7/17/16
100% REVIEW	WHS 4/15/18
FIRE MARSHALL	WHS 4/15/18
PRELIM SITE PLAN	WHS 5/11/18
FINAL SET	WHS 7/24/19
CONSTRUCTION	WHS 7/24/19
PH II REVIEW	WHS 7/28/24
PH II PERMIT	WHS 8/22/24
PH II PERMIT RESPONSE	WHS 8/18/24

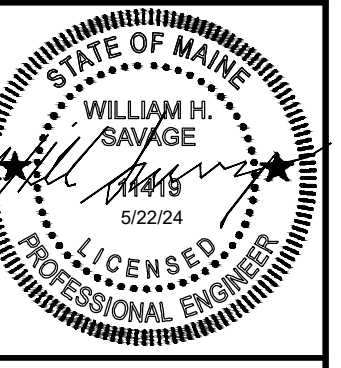
DRAWING NAME:	GENERAL NOTES
	HILTON HOME2 REDEVELOPMENT
PROJECT NAME:	GIRI HOTEL MANAGEMENT
	225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171
CLIENT:	



I/WE PLAN SHALL NOT BE ACCUSED WITHOUT WRITING PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY THE ENGINEER, SHALL BE MADE TO THE ORIGINAL DRAWING WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC. 158 DANFORTH ST. PORTLAND, MAINE 04102 (207) 775-2855

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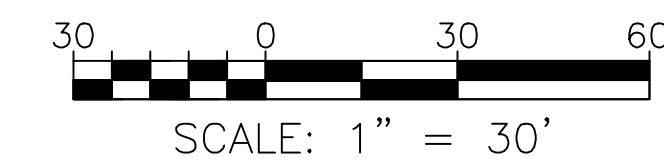
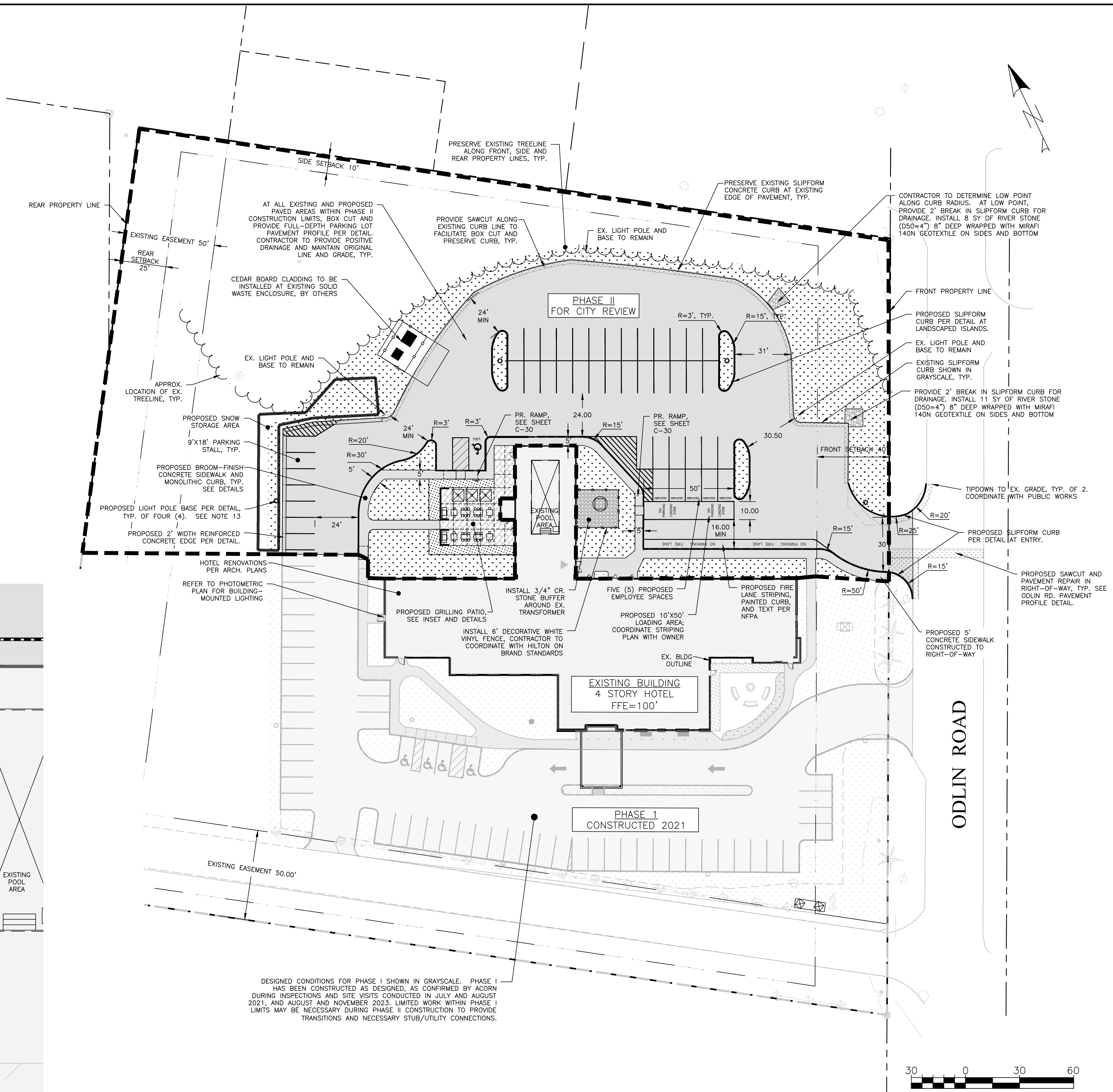
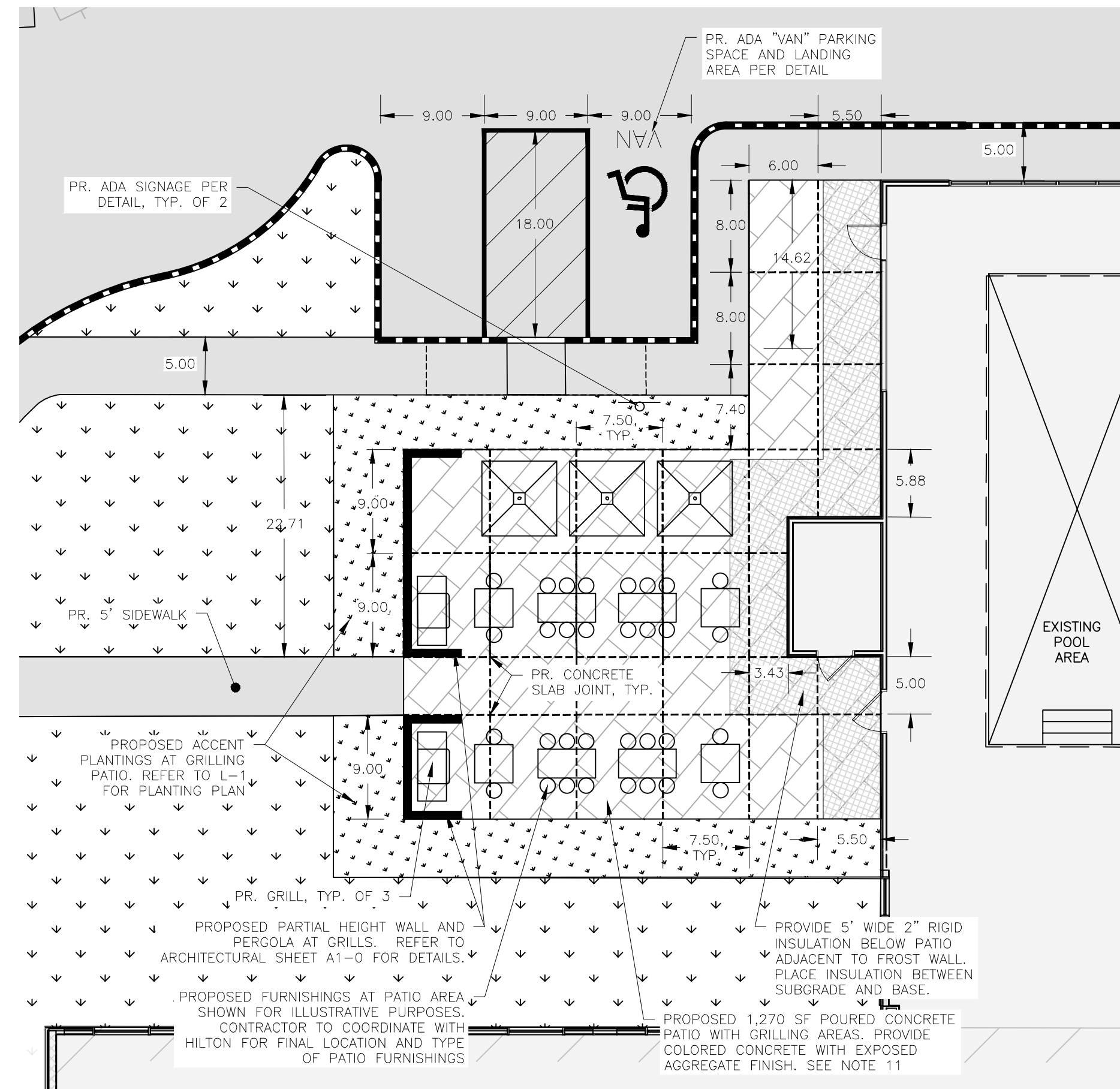
DRAWING NO.
C-02

GENERAL NOTES:

1. REFERENCE: APPROVED PLAN SET TITLED "HILTON HOME 2 REDEVELOPMENT" BY ACORN ENGINEERING, INC., DATED 7/24/18.
2. STRIPING AS INDICATED ON SITE PLAN SHALL BE 4" WIDE. STRIPING SHALL BE WHITE UNLESS OTHERWISE NOTED.
3. DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
4. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
5. EXISTING BITUMINOUS CURB TO BE REMOVED AND PROPERLY DISPOSED OF OFFSITE.
6. PER INTERNAL TRAFFIC ANALYSIS USING AUTOTURN MODELING, ALL PROPOSED VEHICULAR MOVEMENTS ARE PASSABLE BY A 47.75' LONG LADDER TRUCK.
7. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
8. HOSE BIB LOCATION PER ARCH. PLANS.
9. REFER TO SHEETS L-1 & C-42 FOR LANDSCAPING PLANS AND DETAILS.
10. PATIOS SHALL BE EXPOSED AGGREGATE WITH A LIGHT SANDBLAST OR WITH A CONCRETE FINISHING/CURING PRODUCT. THE FINISH MUST BE COMFORTABLE TO WALK ON WITH BARE FEET. DECORATIVE CONCRETE FINISHES MUST BE INTEGRAL WITH THE SLAB. TOPICAL APPLICATIONS ARE NOT PERMISSIBLE.
11. CONTRACTOR TO REVIEW HILTON INN PROPERTY IMPROVEMENT PLAN.
12. REFER TO PHOTOMETRIC PLAN BY HOLBROOK ASSOCIATED FOR MORE INFORMATION ON LIGHTING TYPES. CONTRACTOR TO COORDINATE WITH MEP OR LICENSED ELECTRICIAN FOR CONDUIT LAYOUT.

SPACE AND BULK STANDARDS			
ZONE: GC & S	REQUIRED	EXISTING	PROVIDED PHASES I & II
MINIMUM LOT SIZE	10,000 SF	191,200 SF	191,200 SF
STRUCTURE SETBACKS			
FRONT	40'	50'	50'
SIDE	10'	129'	129'
REAR	25'	168'	168'
PARKING SETBACKS			
STREET LINE	20'	46'	52'
SIDE	5'	37'	31'
REAR	5'	101'	94'
MAXIMUM LOT COVERAGE			
MAXIMUM FLOOR AREA RATIO	0.60	< 0.60	0.27
MAXIMUM BUILDING HEIGHT	40'	< 40'	36.75'
MAXIMUM IMPERVIOUS SURFACE AREA	0.75	0.53	0.42
MINIMUM HOTEL PARKING	1 SPACE PER ROOM = 79 SPACES	145 SPACES	99 SPACES
MINIMUM ADA PARKING SPACES	1 ADA SPACE PER 25 TOTAL SPACES	5 ADA SPACES	5 ADA SPACES
BUFFER YARD TYPE	TYPE E	NONE	TYPE E
MINIMUM PARKING GREEN SPACE	5%	1%	13%

PARKING SUMMARY - 79-ROOM HOTEL				
PARKING DIMENSION	EXISTING	PHASE I (CONST. 2021)	PHASE II (CONST. ANTICIPATED 2024)	TOTAL PROPOSED
STANDARD (9'X18')	145	49	45	94
ADA (9'X18')	5	4	1	5
TOTAL SPACES	150	53	46	99



PERMIT LEVEL
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CONSTRUCTION

ISSUED FOR	BY	DATE
PDR	WHS	7/17/18
100% REVIEW	WHS	8/17/18
FIRE MARSHALL	WHS	9/11/18
PRELIM SITE PLAN	WHS	9/11/18
COMMENT RESPONSE	WHS	7/12/19
FINAL SET	WHS	7/12/19
CONSTRUCTION	WHS	12/12/21
CITY REVIEW	WHS	12/12/21
PH II REVIEW	WHS	1/25/24
PH II PERMIT	WHS	1/25/24
PH II PERMIT RESPONSE	WHS	2/18/24

SITE PLAN

HILTON HOME2 REDEVELOPMENT - PHASE II

GIRI HOTEL MANAGEMENT

225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC. ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102

(207) 775-2855

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JN: 1071

SCALE: 1" = 30'

DESIGNED BY: WHS

DRAWN BY: SJL/FAB

CHECKED BY: WHS

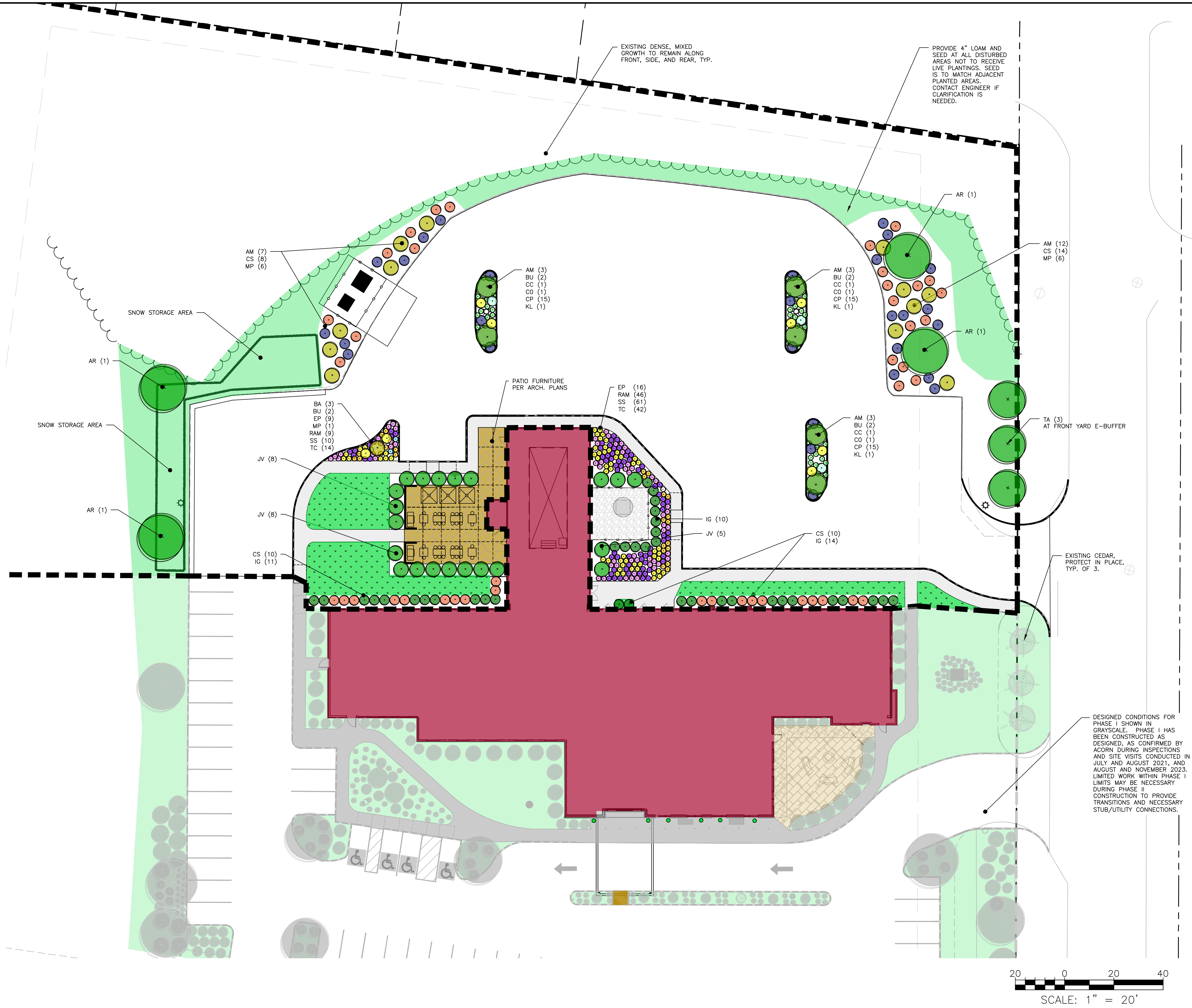


DRAWING NO. **C-10**

- GENERAL NOTES:**
- ALL PROPOSED LANDSCAPE CONSTRUCTION AND PLANT SPECIES SHALL COMPLY WITH CITY OF BANGOR REQUIREMENTS AND CONSTRUCTION STANDARDS. ANY SUBSTITUTIONS TO THE PROPOSED PLAN ARE TO BE REVIEWED FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
 - PLANT QUANTITIES HAVE BEEN PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR; HOWEVER IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL QUANTITIES, IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE PLANS AND SCHEDULE, THE PLANS TAKE PRECEDENCE.
 - CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
 - CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
 - CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS UNTIL PLANTINGS AND LANDSCAPING BECOMES ESTABLISHED.
 - CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
 - THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA ONCE THE PLANTINGS ARE ESTABLISHED. NEW PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY DEFECT GUARANTEE AT NO COST TO THE OWNER.
 - ALL PLANTINGS TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS.
 - ALL LANDSCAPING MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
 - FINAL LOCATION OF TREES TO BE DEFINED BY WINDOW LOCATION; NO TREE IS TO BLOCK ANY PROPOSED OR EXISTING WINDOWS.
 - ALL LANDSCAPING SURROUNDING THE HOTEL AND RESTAURANT SIGNAGE SHALL BE PRUNED AND MAINTAINED AS TO NOT BLOCK OR HINDER THE VISIBILITY OF THE SIGN.
 - ALL NON-PAVED AREAS OF THE SITE MUST BE LANDSCAPED AND SUPPORTED BY AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM. SEE SHEET I-1 FOR IRRIGATION ZONE PLAN.
 - SEE PERMANENT SEEDING TABLE ON SHEET C-46 FOR LAWN AREAS.

PLANT SCHEDULE - PHASE II					
SYMBOL	ID	BOTANICAL NAME	COMMON NAME	PHASE II QTY	SIZE
TREES					
AR	(1)	ACER RUBRUM	RED MAPLE	4	2" CAL. BB
CC	(1)	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3	2" CAL. BB
CO	(1)	COTINUS OBOVATUS	AMERICAN SMOKETREE	3	2" CAL. BB
JV	(8)	JUNIPERUS VIRGINIANA	EASTERN JUNIPER	21	5-6 FT.
TA	(3)	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	3	2" CAL. BB
SHRUBS					
AM	(7)	ARONIA MELANOCARPA 'LOW-SCAPE MOUND'	CHOKEBERRY	28	5 GAL.
BU	(2)	BUXUS 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	8	5 GAL.
CS	(1)	CORNUS SERCEA 'CARDINAL'	RED OSIER DOGWOOD	42	5 GAL.
IG	(10)	ILEX GLABRA 'CHAMZIN'	NORDIC INKBERRY HOLLY	35	5 GAL.
KL	(1)	KALMIA LATIFOLA	MOUNTAIN LAUREL	3	5 GAL.
MP	(6)	MYRICA PENNSYLVANICA	BAYBERRY	13	5 GAL.
PERENNIAL / GROUNDCOVER					
BA	(3)	BAPTISIA AUSTRALIS	FALSE INDIGO	3	2 GAL.
CP	(9)	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	45	8" POT
EP	(1)	ECHINACEA PALLIDA	PALE CONEFLOWER	25	1 GAL.
RAM	(9)	RUDBECKIA 'AMERICAN GOLD RUSH'	BLACK EYED SUSAN	55	1 GAL.
SS	(10)	SALVIA SYLVESTRIS	SAGE MAY NIGHT	71	1 GAL.
TC	(14)	TEUCRIUM CHAMAEDRYIS	GERMANDER	56	1 GAL.
SEEDING					
—		FESTUCA RUBRA GRASS MIX	RED FESCUE GRASS MIX	N/A	N/A

LEGEND	
STYLE	ASSOCIATED AREAS
	LANDSCAPED OR GRASSED AREA
	STRUCTURES
	PAVEMENT
	BROOM-FINISHED CONCRETE SIDEWALK
	CRUSHED STONE
	PATIO AREA



SCALE: 1" = 20'

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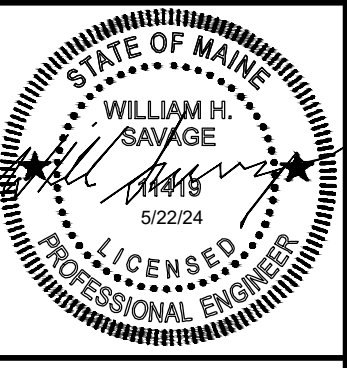
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100% REVIEW	WHS	8/9/16
FIRE MARSHALL	WHS	8/11/16
PRELIM SITE PLAN	WHS	8/11/16
COMMENT RESPONSE	WHS	8/11/16
FINAL SET	WHS	8/11/16
CONSTRUCTION	WHS	8/11/16
PH II REVIEW	WHS	7/28/24
PH II PERMIT	WHS	7/22/24

LANDSCAPE PLAN
HILTON HOME2 REDEVELOPMENT
GIRI HOTEL MANAGEMENT
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

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ENGINEERING, INC.

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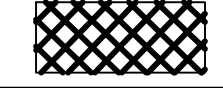

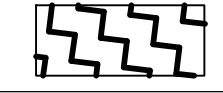
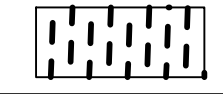
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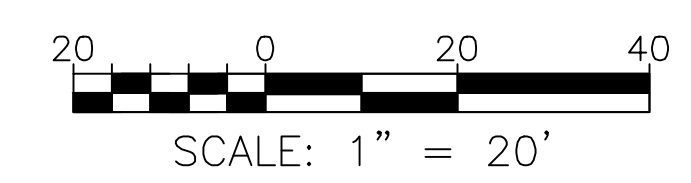
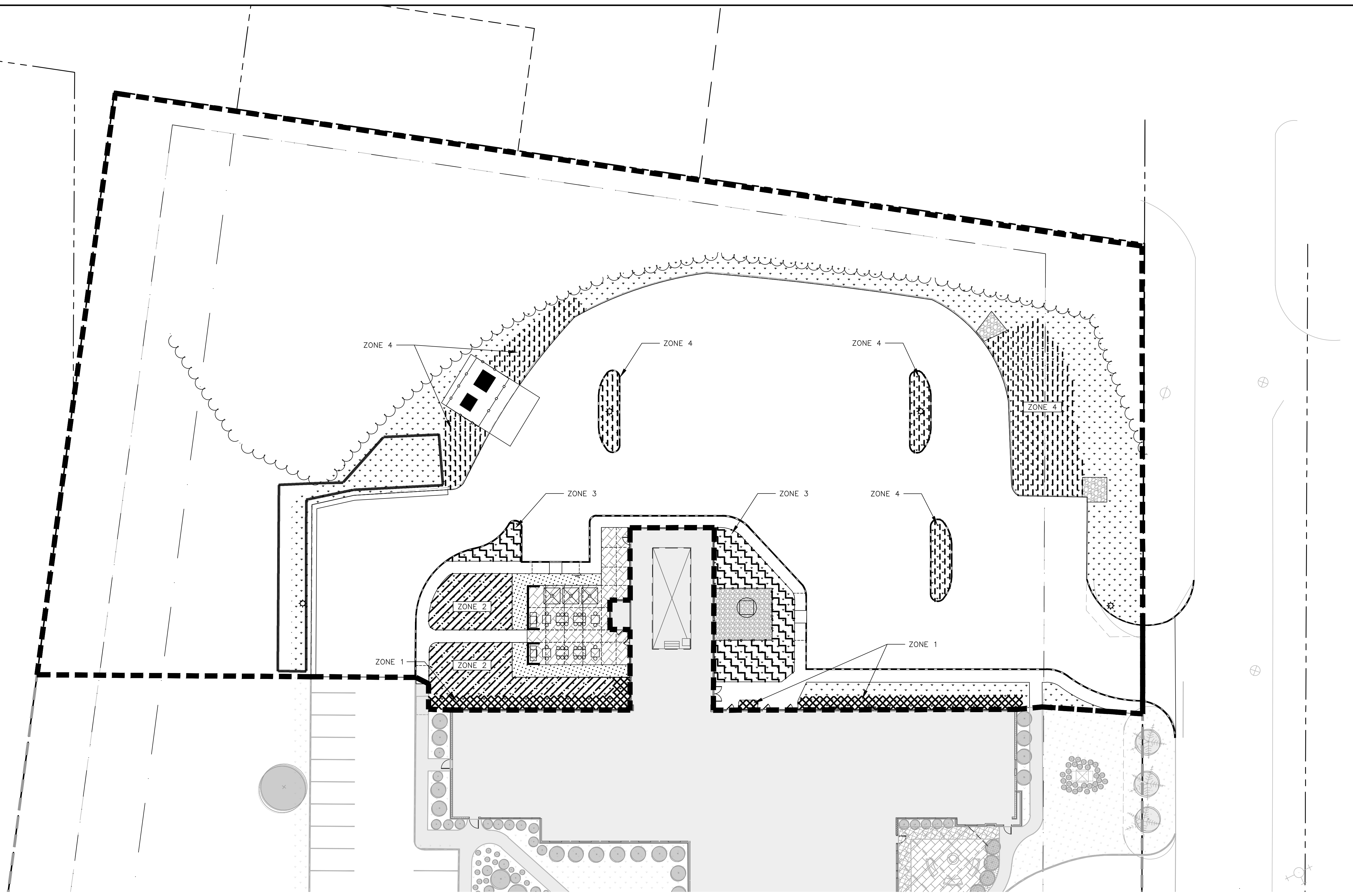


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L-1

IRRIGATION NOTES:

1. IRRIGATION IS TO BE DESIGN BUILD, BASED ON THE PROVIDED ZONE PLAN. CONTRACTOR IS TO COMPLY WITH ALL LOCAL CODE AND REGULATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR CREATING A COMPLETE AND WORKING SYSTEM AND SHALL BE RESPONSIBLE FOR IDENTIFYING LOCATIONS AND TYPES OF ALL EXISTING VALVES, CONTROL WIRE, COMMUNICATION WIRE, LATERAL LINES, MAINLINES AND OTHER EQUIPMENT.
3. SLEEVING IS REQUIRED FOR ALL IRRIGATION AND CONTROL WIRE UNDER ALL PAVEMENTS, WALLS, ETC. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF SIZE OF ALL SLEEVING REQUIRED FROM COMPLETE INSTALLATION OF WORK. SLEEVING SHALL BE PVC SCHEDULE 40 PIPE OR APPROVED EQ. PLACE CONTROL WIRE IN SEPARATE SLEEVE.
4. VERIFY SITE DIMENSIONS AND EXISTING CONDITIONS INCLUDING LOCATIONS OF UNDERGROUND UTILITIES SUCH AS GAS LINE AND WATER LINES PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF EXISTING CONDITIONS TO REMAIN AND REPAIR OR REPLACEMENT OF ANY SITE DAMAGES.
5. PROVIDE (2) HOSE BIBS ON THE EXTERIOR OF THE BUILDING FACE, LOCATED ON WEST AND EAST BACK SIDES OF THE BUILDING. CONFIRM EXACT LOCATION WITH CLIENT.
6. PROVIDE FLOW SENSOR FOR IRRIGATION SYSTEM.
7. PROVIDE A WEATHER-SMART CONTROLLER FOR ALL NEWLY INSTALLED IRRIGATION. CONTROLLER IS TO BE LOCATED PER THE DIRECTION OF THE CLIENT AND ENGINEER.
8. LOCATIONS OF ALL EXTERIOR VALVE BOXES ARE TO BE APPROVED BY THE CLIENT AND ENGINEER PRIOR TO INSTALLATION.
9. CONTRACTOR IS TO PROVIDE AS-BUILT DIAGRAM TO CLIENT SUBSEQUENT TO INSTALLATION.
10. FOR RE-SEEDED AREAS THAT ARE NOT IRRIGATED EITHER BY NEW OR EXISTING HEADS, CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY IRRIGATION UNTIL PLANTING IS FULLY ESTABLISHED.

STYLE	ASSOCIATED AREAS
	ZONE 1: DRIP IRRIGATION AT FOUNDATION PLANTINGS
	ZONE 2: OVERHEAD SPRAY AT TURF
	ZONE 3: OVERHEAD SPRAY AT PERENNIAL BEDS
	ZONE 4: DRIP IRRIGATION AT NATIVE SHRUB PLANTING BEDS



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CONSTRUCTION

ISSUED FOR	BY	DATE
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100% REVIEW	WHS	8/9/18
FIRE MARSHALL	WHS	8/12/18
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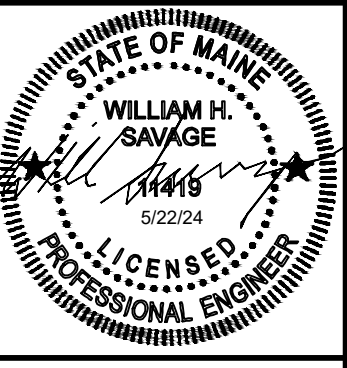
DRAWING NAME: **IRRIGATION ZONE PLAN**
 PROJECT NAME: **HILTON HOME2 REDEVELOPMENT**
 CLIENT: **GIRI HOTEL MANAGEMENT**
 225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

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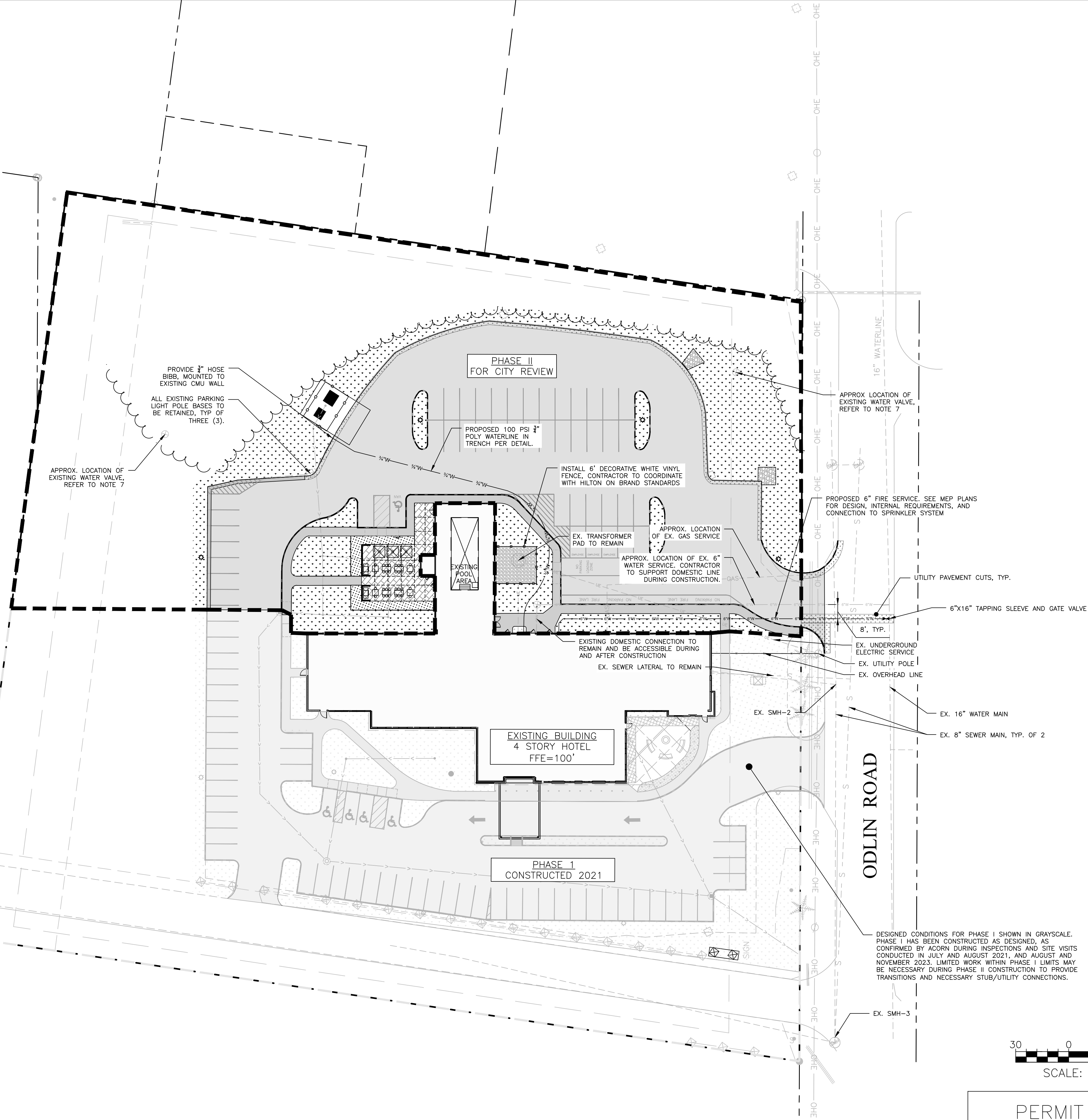
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GENERAL NOTES:

- REFER TO C-30 FOR GRADING AND DRAINAGE PLAN.
- LOCATION OF PROPOSED CONNECTIONS APPROXIMATE BASED ON PLANS DEVELOPED BY WBRC ARCHITECTS ENGINEERS TITLED SITE EXISTING CONDITIONS PLAN, DATED SEPTEMBER 9TH, 2005. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
- CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY SURVEY, PRIOR TO ANY CHANGES.
- FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS EXTEND TO OUTSIDE WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE. REFER TO M.E.P. PLANS WHERE APPLICABLE FOR UTILITY CONNECTIONS.
- WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY MEP ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE BANGOR WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE BANGOR WATER DISTRICT AND CITY OF BANGOR. REFER TO M.E.P. DRAWINGS FOR SPRINKLER PLANS.
- ALL EXISTING UTILITIES SERVING THE HOTEL ARE TO REMAIN.
- CONTRACTOR TO FIELD VERIFY AND LOCATE THE TWO EXISTING WATER VALVES AND THE EXISTING 6" DOMESTIC SERVICE AS IDENTIFIED BY BANGOR WATER DISTRICT. BOTH VALVES AND ANY ASSOCIATED SERVICE LINE(S) ARE TO BE REMOVED IN ACCORDANCE WITH BANGOR WATER DISTRICT TECHNICAL STANDARDS. CONTRACTOR TO COORDINATE WITH BANGOR WATER DISTRICT DURING THE REMOVAL PROCESS.
- BUILDING LIGHTING NOT SHOWN ON THIS SHEET. REFER TO ARCHITECTURAL DRAWINGS, MEP DRAWINGS, AND "SITE LIGHTING LAYOUT" BY SWANEY LIGHTING ASSOCIATES, INC. FOR MORE INFORMATION ON BUILDING-MOUNTED LIGHTING AND LIGHTING TYPES.

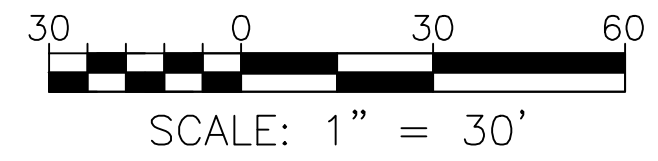
MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	-	6'	5'	4'	6'
WATER	6'	-	10"	6'	3'
SEWER	5'	10"	-	5'	10'
GAS	4'	6'	5'	-	6'
STORMWATER	6'	3'	10'	6'	-

*5' OF HORIZONTAL DISTANCE IS PERMISSIBLE ONLY IF THE FACE OF THE SEWER PIPE IS A MINIMUM OF 18" BELOW THE FACE OF THE WATER PIPE



ODLIN ROAD

DESIGNED CONDITIONS FOR PHASE I SHOWN IN GRAYSCALE. PHASE I HAS BEEN CONSTRUCTED AS SHOWN, AS CONFIRMED BY ACORN DURING INSPECTIONS AND SITE VISITS CONDUCTED IN JULY AND AUGUST 2021, AND AUGUST AND NOVEMBER 2023. LIMITED WORK WITHIN PHASE I LIMITS MAY BE NECESSARY DURING PHASE II CONSTRUCTION TO PROVIDE TRANSITIONS AND NECESSARY STUB/UTILITY CONNECTIONS.



PERMIT LEVEL
NOT FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
ABILITY TO SERVE	WHS	6/2/16
PDR	WHS	7/7/16
100% REVIEW	WHS	2/10/18
FIRE MARSHALL	WHS	2/17/18
PRELIM SITE PLAN	WHS	6/6/18
FINAL SET	WHS	7/24/18
CONSTRUCTION	WHS	8/19/21
PH II REVIEW	WHS	7/20/24
PH II PERMIT	WHS	8/22/24
PH II PERMIT RESPONSE	WHS	8/19/24

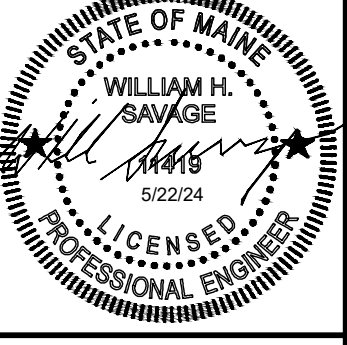
UTILITY PLAN
HILTON HOME2 REDEVELOPMENT
GIRI HOTEL MANAGEMENT
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC. ENGINEERING, INC.

158 DANFORTH ST., PORTLAND, MAINE 04102
(207) 775-2855

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS AUTHORIZED WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: 1071_CIVIL
JN: 1071
SCALE: 1"=30'
DESIGNED BY: WHS
DRAWN BY: SJL/FAB
CHECKED BY: WHS

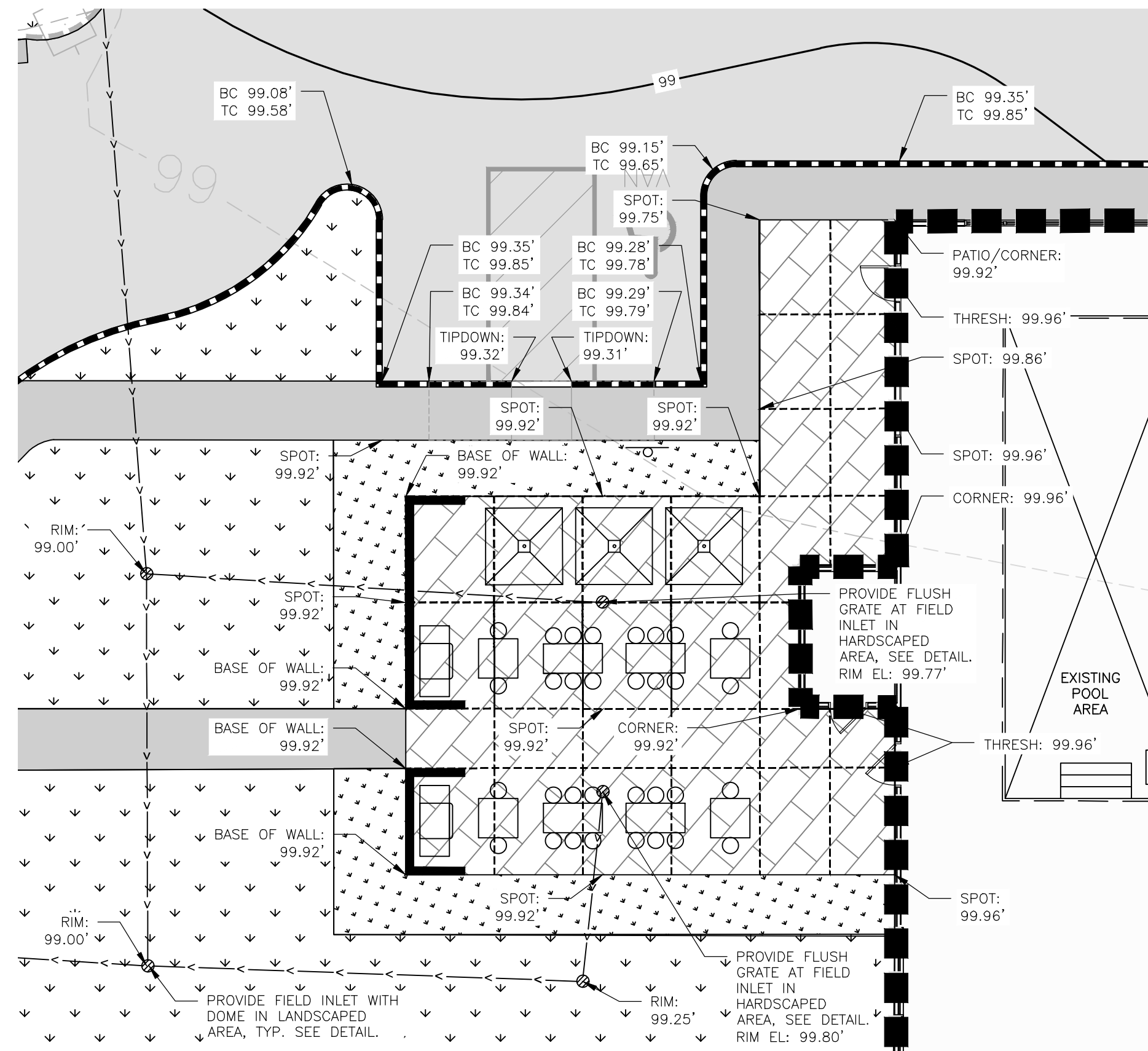


DRAWING NO.
C-20

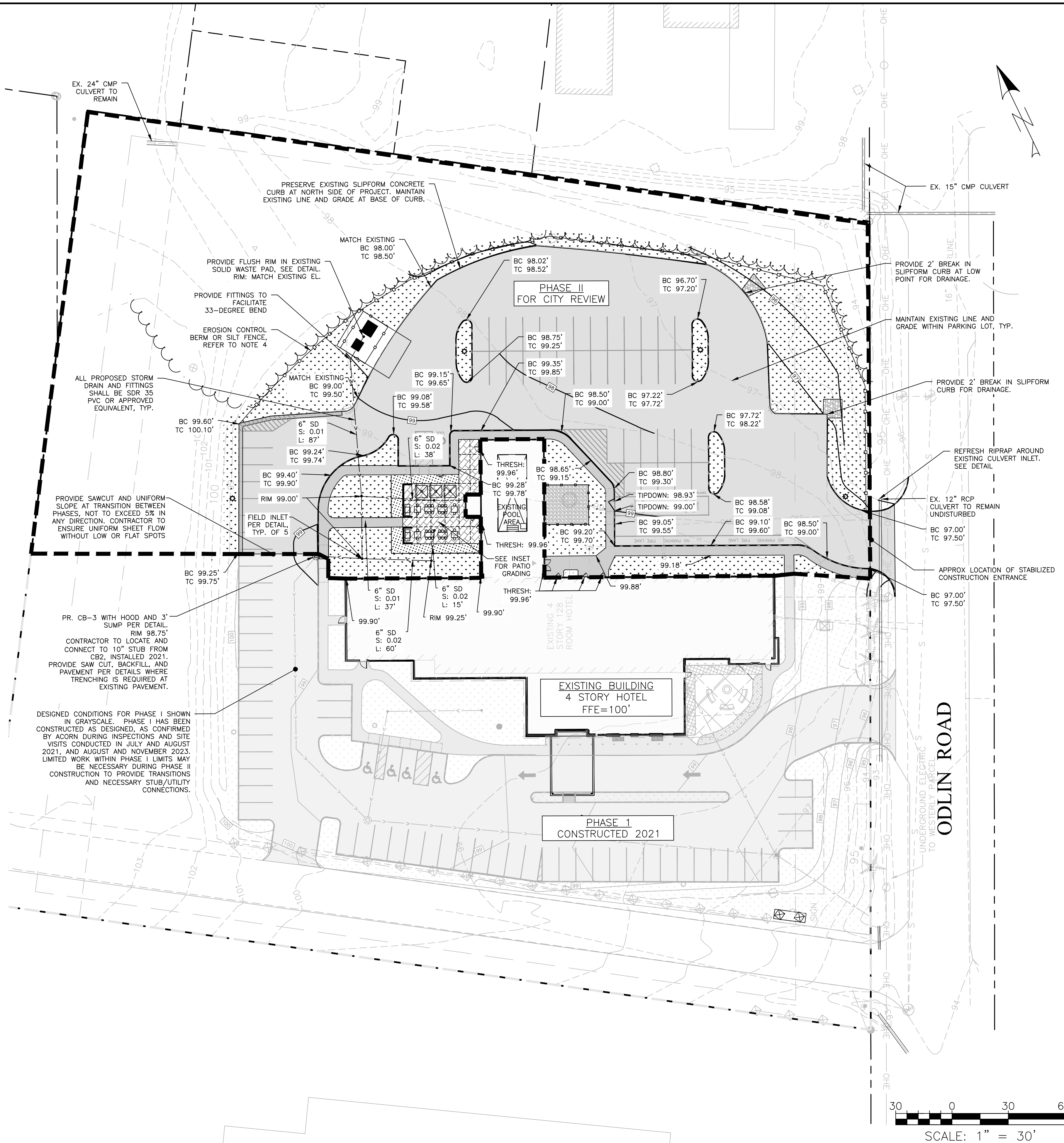
GENERAL NOTES:

- CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADE OF ALL NON-STABILIZED SURFACES, PER DETAIL.
- CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
- REFER TO THE STORMWATER REPORT FOR STORMWATER ANALYSIS AND BMP SIZING CALCULATIONS.
- EROSION CONTROL BERM OR SILT FENCE TO BE INSTALLED DOWN GRADIENT OF ALL ACTIVE EARTHMOVING CONSTRUCTION. REFER TO THE EROSION AND SEDIMENTATION CONTROL DETAILS AND THE EROSION CONTROL REPORT.
- EXISTING CONTOURS ARE DERIVED FROM A SURVEY BY PLUSGA AND DAY. CONTOURS ARE BASED ON A HOTEL FFE BENCHMARK OF 100'. ALL ELEVATIONS AND CONTOURS ARE RELATIVE TO THIS BENCHMARK AND DO NOT REPRESENT THE USGS ELEVATIONS ABOVE MEAN SEA LEVEL.
- PROVIDE CLEANOUTS ON FOUNDATION DRAINS AT ANY 90 DEGREE BEND, WITH A MINIMUM OF TWO DESPITE FINAL ANGLES.
- CONTRACTOR TO FIELD VERIFY EXISTING GRADES AT BOTTOM OF PROPOSED CURB TO CONFIRM THAT PROPOSED TOP OF CURB ELEVATION DOES NOT RESULT IN POOR DRAINAGE OR PONDING WATER.

PROPOSED DRAINAGE STRUCTURE SCHEDULE			
STRUCTURE	RIM	INV. IN	INV. OUT
CB-1 - INSTALLED 2021	97.20'	93.05' (12" PVC) 93.05' (6" PVC)	92.95' (12" PVC)
CB-2 - INSTALLED 2021	98.15'	94.50' (6" PVC) 94.25' (10" PVC)	94.15' (12" PVC)
CB-3 - PH II	98.75'	95.15' (6" PVC)	95.05' (10" PVC)



PATIO INSET
SCALE: 1"=10'



SCALE: 1" = 30'

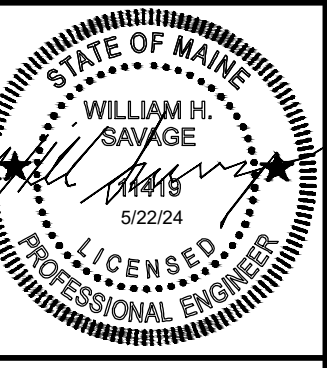
PERMIT LEVEL
NOT FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
PDR	WHS	7/17/16
100% REVIEW	WHS	7/27/16
FIRE MARSHALL	WHS	8/11/18
PRELIM SITE PLAN	WHS	8/27/18
COMMENT RESPONSE	WHS	7/12/19
FINAL SET	WHS	7/24/19
CONSTRUCTION	WHS	7/27/21
PH II REVIEW	WHS	7/29/24
PH II PERMIT	WHS	7/29/24
PH II PERMIT RESPONSE	WHS	8/18/24

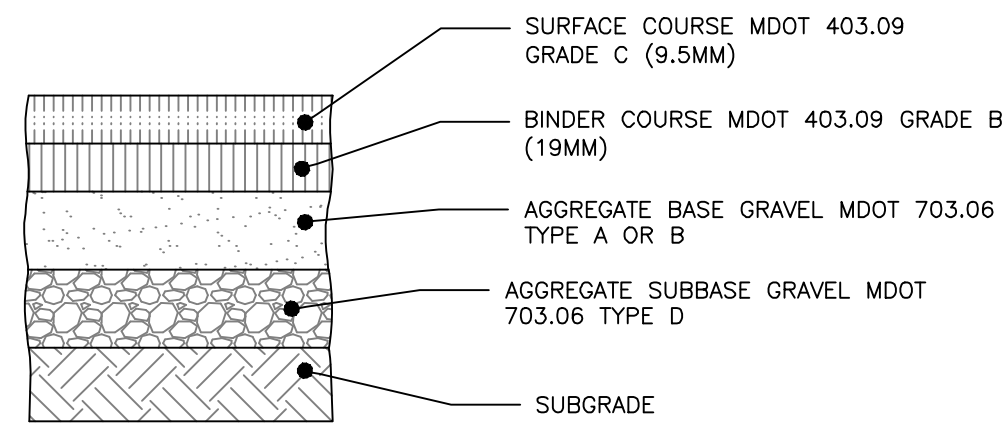
DRAWING NAME: **GRADING, DRAINAGE, & EROSION CONTROL PLAN**
 PROJECT NAME: **HILTON HOME2 REDEVELOPMENT**
 CLIENT: **GIRI HOTEL MANAGEMENT**
 225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ENGINEERING, INC.
A C O R N
 ENGINEERING, INC.
 158 DANFORTH ST. PORTLAND, MAINE 04102
 (207) 775-2855

FILE: 1071_CIVIL
 JN: 1071
 SCALE: 1"=30'
 DESIGNED BY: SJL
 DRAWN BY: SJL/FAB
 CHECKED BY: WHS



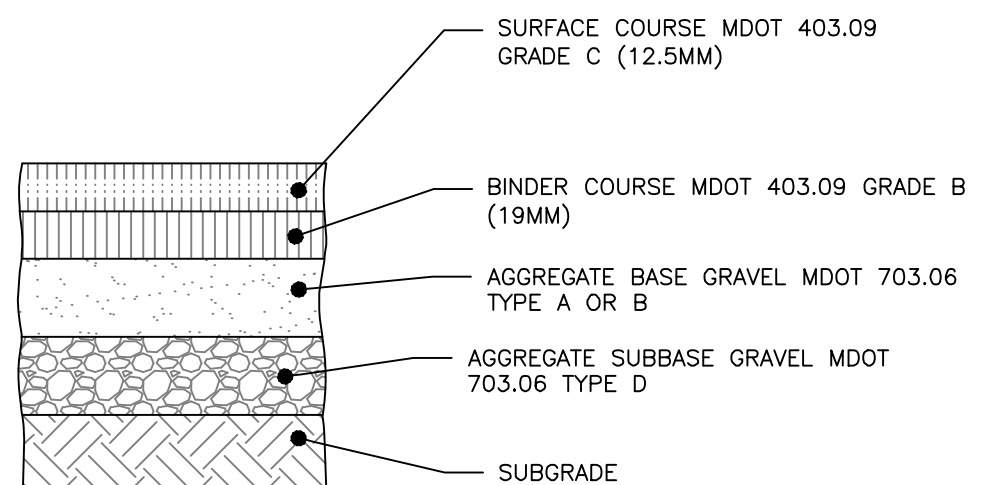
DRAWING NO.
C-30



- NOTES:
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
 2. BITUMINOUS PAVEMENT PROFILE APPLIES TO THE REPAVED AND RECONSTRUCTED PARKING LOT WITHIN THE PROPERTY.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (9.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A OR B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

BITUMINOUS PAVEMENT PROFILE: INTERNAL
NOT TO SCALE

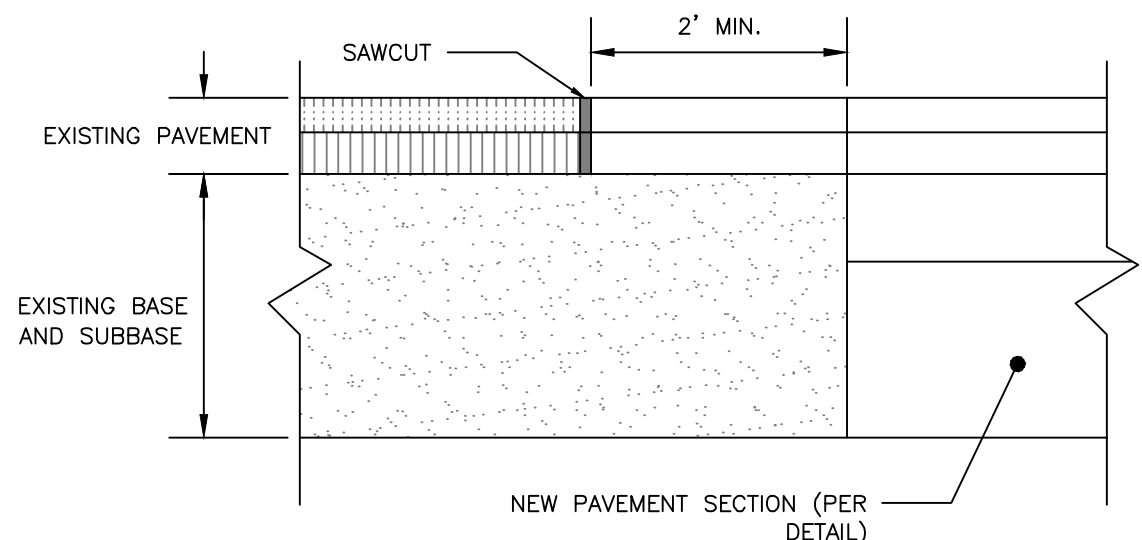


- NOTES:
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
 2. BITUMINOUS PAVEMENT PROFILE APPLIES ONLY WITHIN ODLIN ROAD R.O.W.
 3. IF EXISTING PAVEMENT PROFILE IS MORE STRINGENT, THE EXISTING CONDITION SHALL BE MATCHED.

THICKNESS OF LAYERS	
STANDARD	LAYERS
2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
3"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
6"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A OR B
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

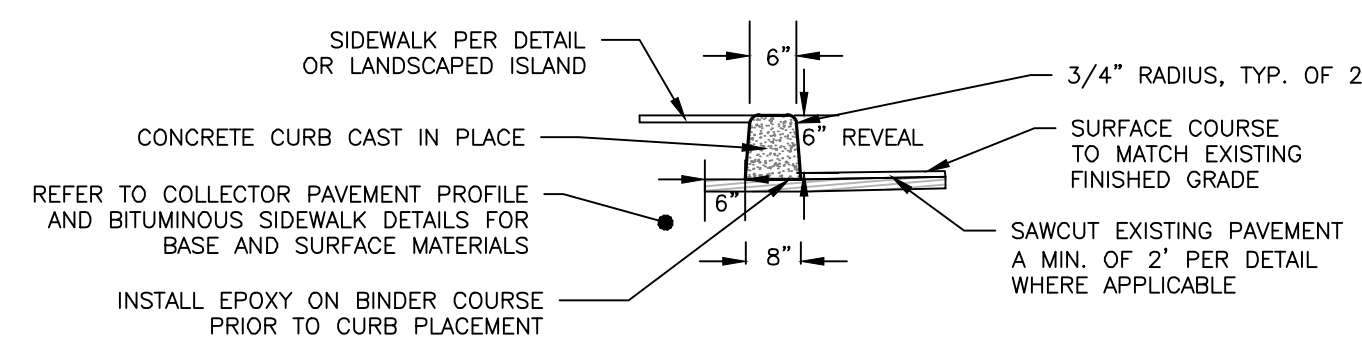
BITUMINOUS PAVEMENT PROFILE: ODLIN ROAD
NOT TO SCALE

- NOTES:
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2" STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
 2. THE NEW PAVEMENT SECTION SHALL MEET THE CORRESPONDING BITUMINOUS PAVEMENT DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.

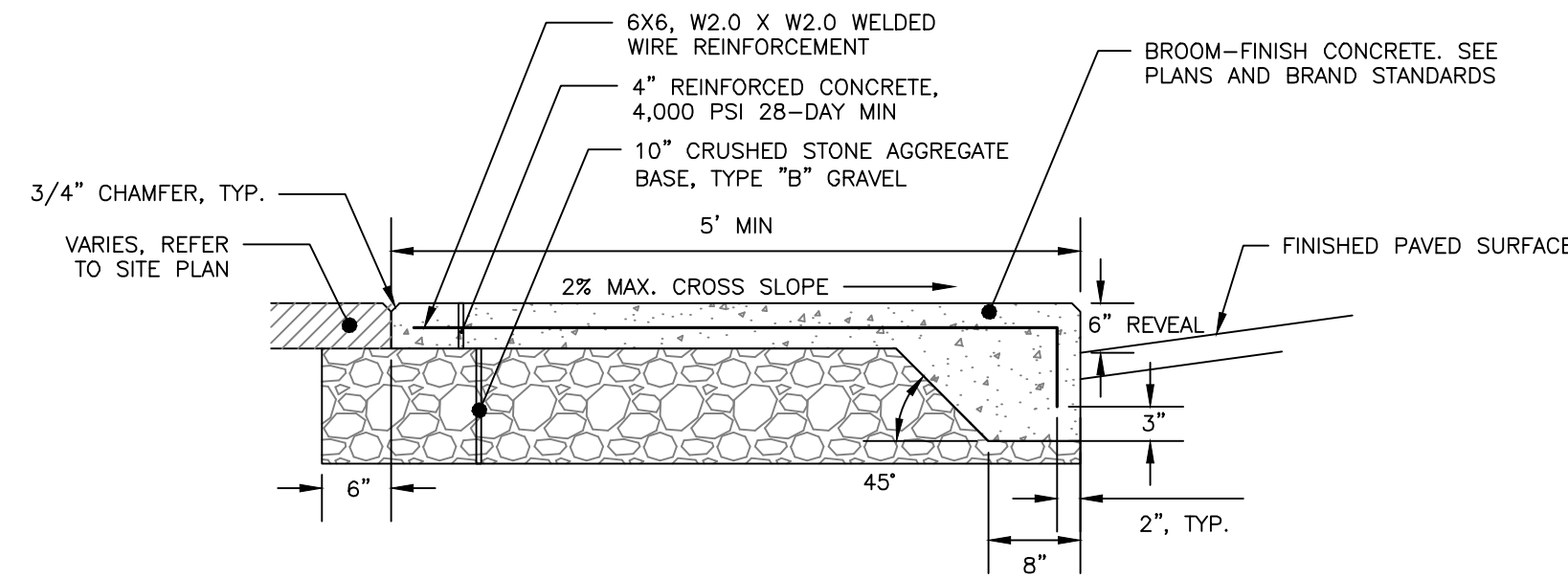


PAVEMENT SAWCUT DETAIL
NOT TO SCALE

- NOTES:
1. TIPDOWNS 7' IN LENGTH SHALL BE PROVIDED AS SEEN ON PLANS.
 2. ALL EXPOSED FACES OF CURB SHALL HAVE A SMOOTH RUBBED FINISH.

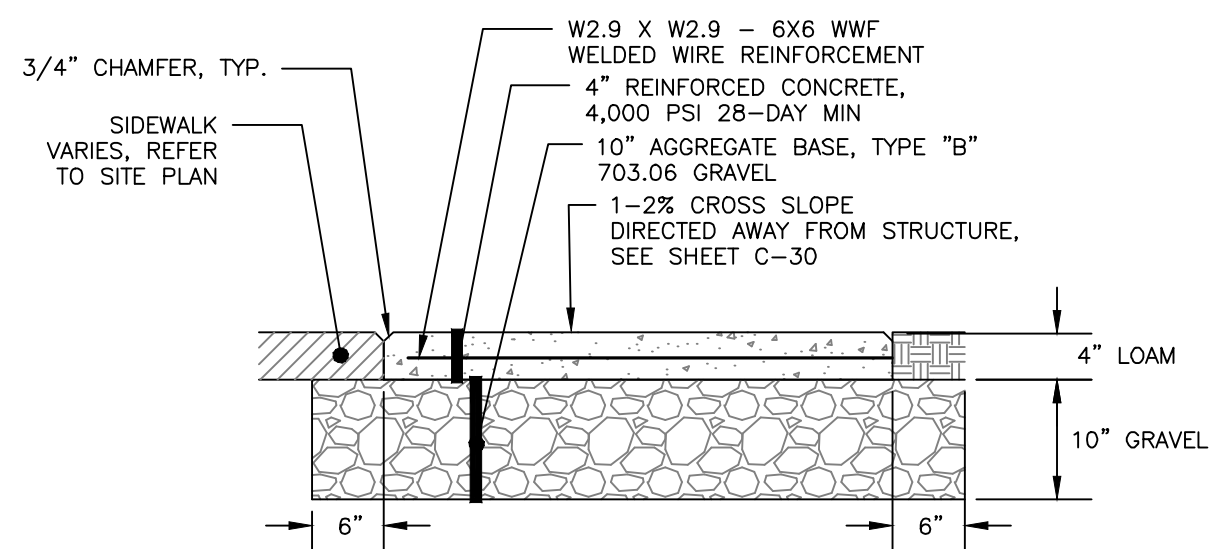


SLIPFORM CONCRETE CURB DETAIL
NOT TO SCALE

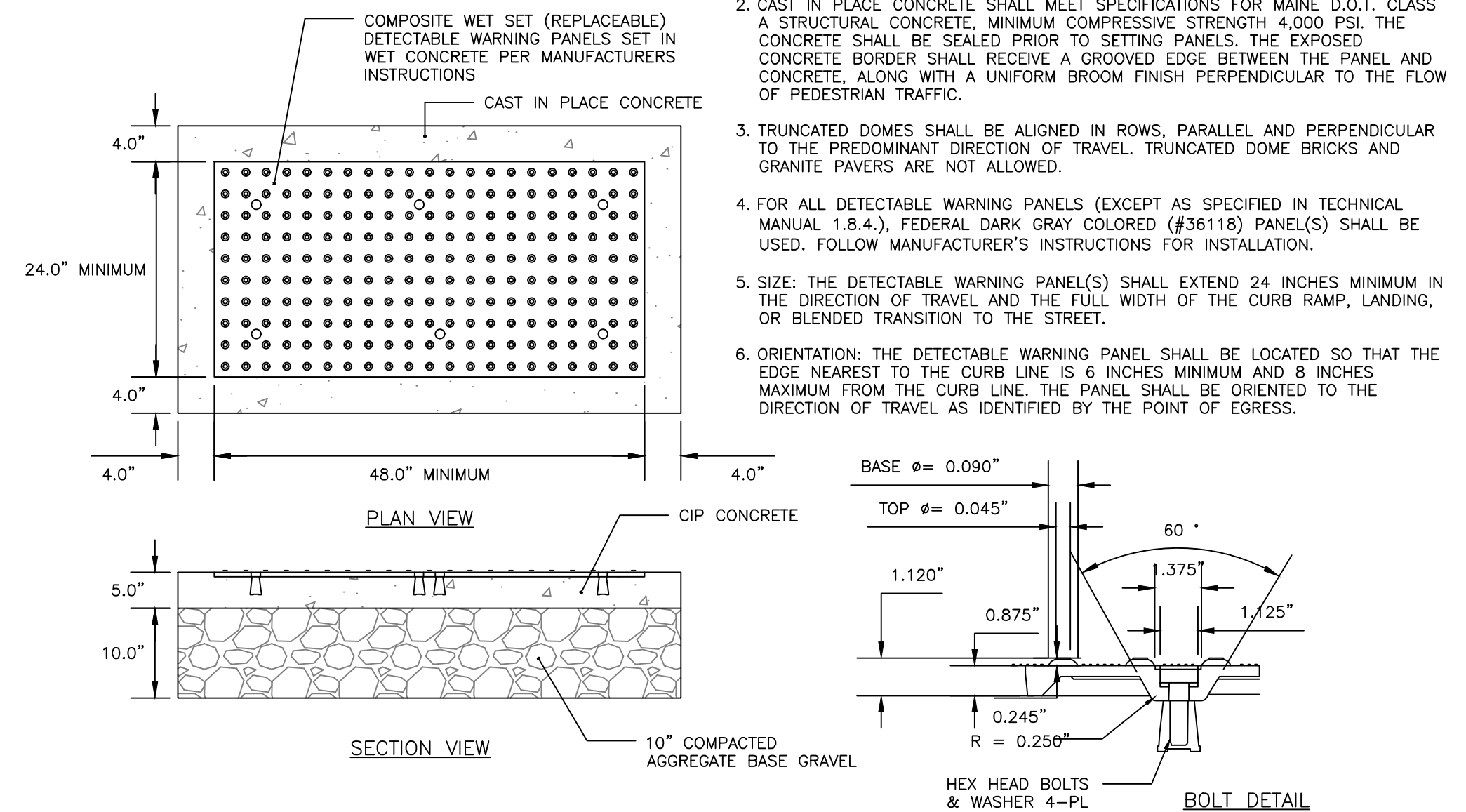


MONOLITHIC CONCRETE CURB AND SIDEWALK
NOT TO SCALE

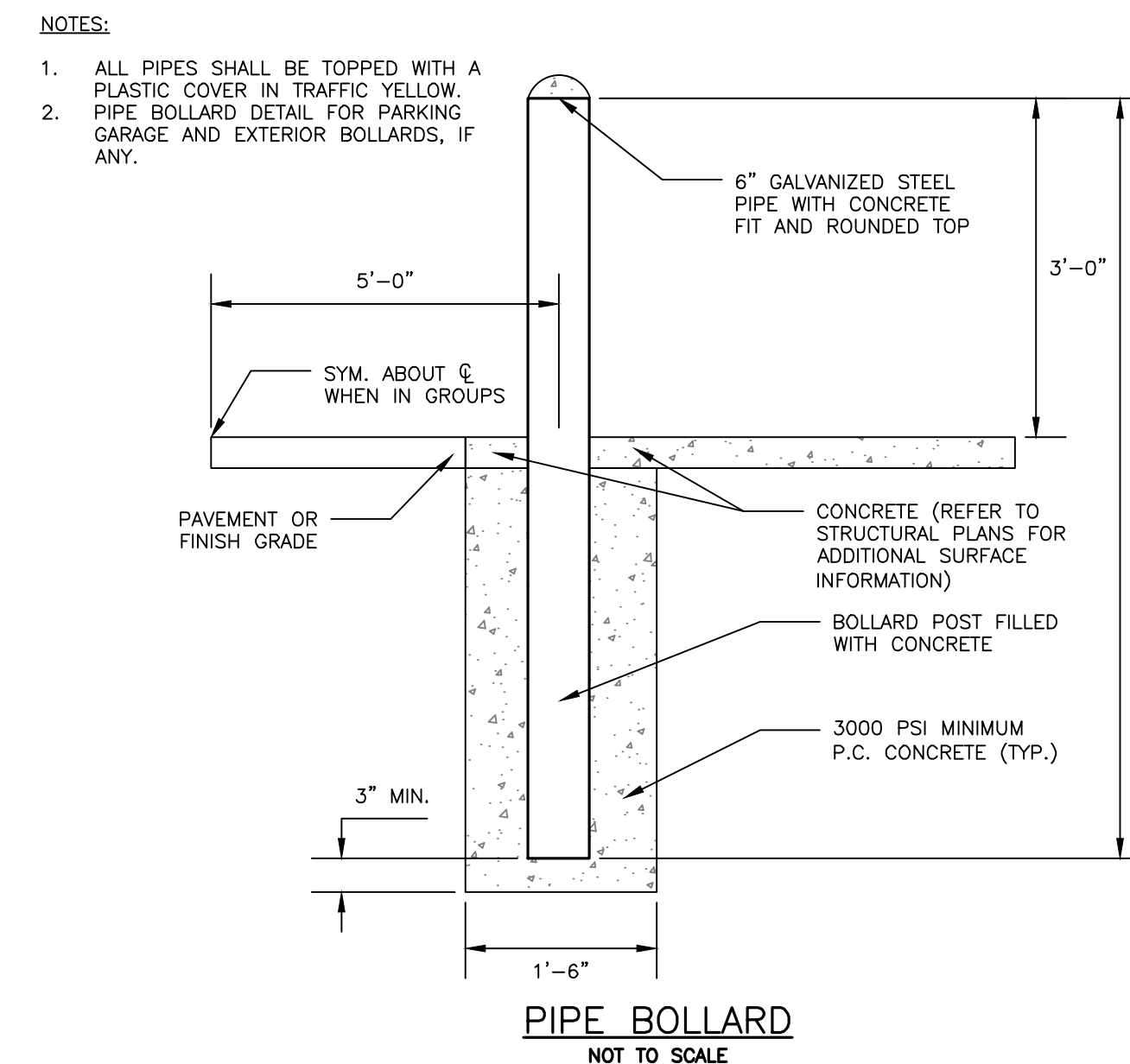
- CONCRETE PATIO NOTES:
1. AT A MINIMUM, TESTING SHALL CONSIST OF ENTRAINED AIR AND SLUMP TESTS ON SITE PRIOR TO POURING THE PATIO. ENTRAINED AIR TESTS SHALL BE DONE IN ACCORDANCE WITH AASHTO T152. TEST FIRST TWO LOADS AND EVERY THIRD LOAD THEREAFTER PROVIDED CONSISTENT RESULTS ARE ACHIEVED.
 2. WELDED WIRE FABRIC SHALL BE PLACED 2 INCHES ABOVE THE CRUSHED GRAVEL, AND 2 INCHES FROM ALL FINISHED EDGES, EXPANSION JOINTS AND CURBS. ALL FABRIC JOINTS SHALL BE OVERLAPPED A MINIMUM OF 1 FOOT AND BE PROPERLY TIED. IF THE CONTRACTOR ELECTS TO USE REBAR, ONLY 4-GAUGE WILL BE ACCEPTABLE. IF THE CONTRACTOR ELECTS TO USE A PRE-MIXED FIBER MESH, A SPECIFICATION SHEET MUST BE SUBMITTED AND PRE-APPROVED BY THE ENGINEER PRIOR TO ITS APPLICATION.
 3. SLABS SHALL BE SEPARATED BY EXPANSION JOINTS AS SHOWN ON THE PLAN WITH PREFORMED EXPANSION FILLER 1/2 INCH IN THICKNESS.
 4. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A 1/4 INCH THICK PREFORMED JOINT FILLER SHALL BE USED BETWEEN THE SLAB AND THE STRUCTURE.
 5. THE PATIO SURFACE SHALL BE SCORED INTO BLOCK UNITS NO GREATER THAN 100 SQUARE FEET AS DIRECTED. THE DEPTH OF THE SCORING SHALL BE AT LEAST ONE QUARTER OF THE THICKNESS OF THE SLAB.
 6. ANY MATCHING INTO EXISTING SIDEWALKS SHALL BE DONE SO WITH A CLEAN VERTICAL FACE CONNECTION.
 7. OUTDOOR PATIO CONCRETE SURFACE SHALL HAVE LIGHT SANDBLASTED EXPOSED AGGREGATE FINISH.
 8. CONCRETE SHALL BE CURED FOR 72 HOURS. CURING SHALL BE BY MEANS OF THOMPSON'S WATER SEAL AS MANUFACTURED BY E.A. THOMPSON CO., INC. OF MEMPHIS, TENNESSEE, BOILED LINSSEED OIL, WHITE PIGMENTED CURING COMPOUND, OR BY OTHER APPROVED METHODS. CONCRETE TO BE SEALED WITH CONSOLIDECK SALTGUARD WB OR APPROVED EQUAL 28 DAYS AFTER PLACEMENT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION.
 9. GENERAL CONTRACTOR TO COLLECT DELIVERY SLIPS AND TRANSFER TO THE OWNER.
 10. PROVIDE 5' WIDE 2" RIGID INSULATION BOARD BELOW PATIO ADJACENT TO FROST WALL. PLACE INSULATION BETWEEN SUBGRADE AND BASE.



CONCRETE PATIO
NOT TO SCALE

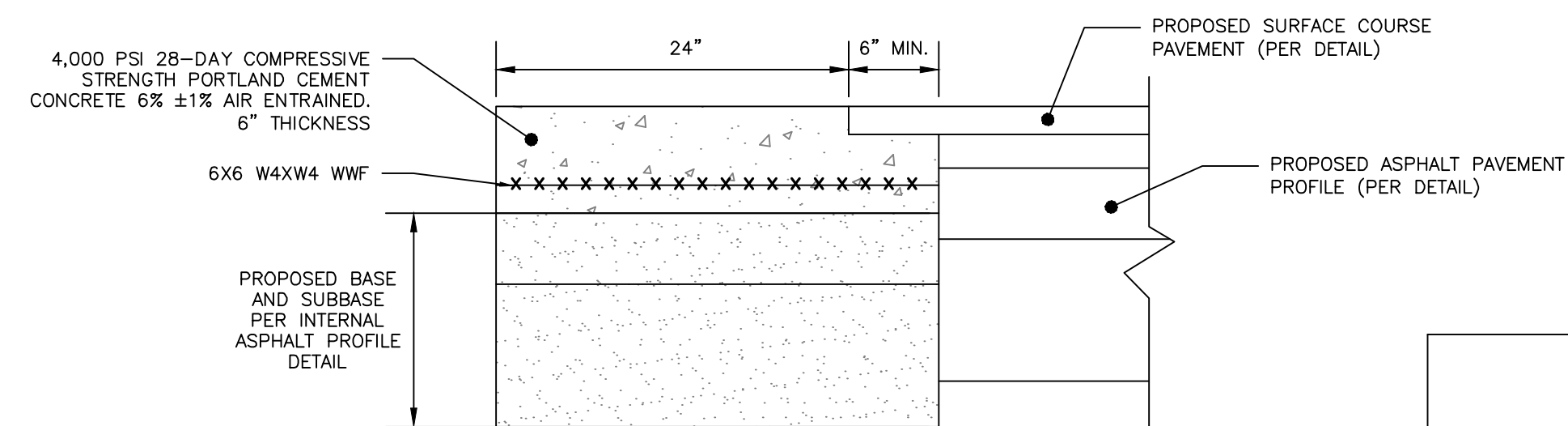


SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE

- NOTES:
1. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF BITUMINOUS PAVEMENT OVERLAP.
 2. PROVIDE CONCRETE EXPANSION JOINTS EVERY 10'.
 3. WELDED WIRE FABRIC SHALL BE PLACED 2 INCHES ABOVE THE CRUSHED GRAVEL, AND 2 INCHES FROM ALL FINISHED EDGES, EXPANSION JOINTS AND CURBS. ALL FABRIC JOINTS SHALL BE OVERLAPPED A MINIMUM OF 1 FOOT AND BE PROPERLY TIED. IF THE CONTRACTOR ELECTS TO USE REBAR, ONLY 4-GAUGE WILL BE ACCEPTABLE. IF THE CONTRACTOR ELECTS TO USE A PRE-MIXED FIBER MESH, A SPECIFICATION SHEET MUST BE SUBMITTED AND PRE-APPROVED BY THE ENGINEER PRIOR TO ITS APPLICATION.



CONCRETE PARKING EDGE
NOT TO SCALE

PERMIT LEVEL
NOT FOR
CONSTRUCTION

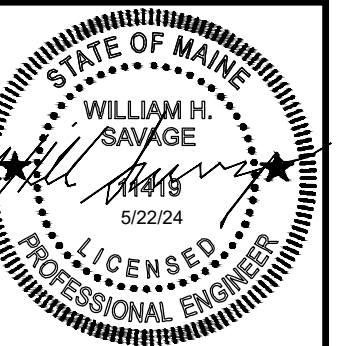
ISSUED FOR	BY	DATE
PDR	WHS	7/17/16
100% REVIEW	WHS	4/20/18
FIRE MARSHALL	WHS	5/17/18
PRELIM SITE PLAN	WHS	6/2/18
FINAL SET	WHS	7/24/18
CONSTRUCTION	WHS	8/23/18
PH II REVIEW	WHS	4/28/24
PH II PERMIT	WHS	5/22/24
PH II PERMIT RESPONSE	WHS	6/18/24

DRAWING NAME: **SITE DETAILS - 1**
PROJECT NAME: **HILTON HOME2 REDEVELOPMENT**
CLIENT: **GIRI HOTEL MANAGEMENT**
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC. ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2855

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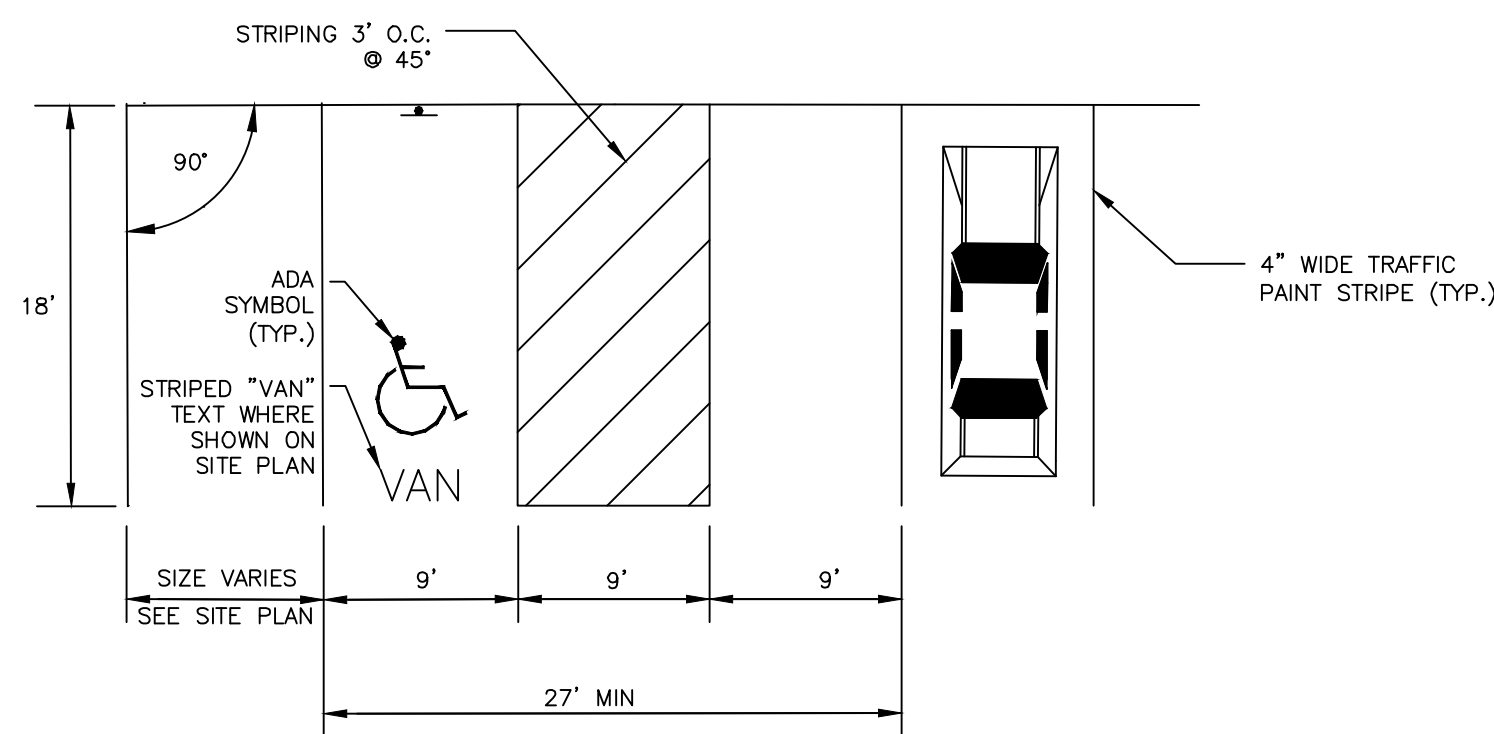
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SCALE: NTS
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DRAWN BY: SJL/FAB
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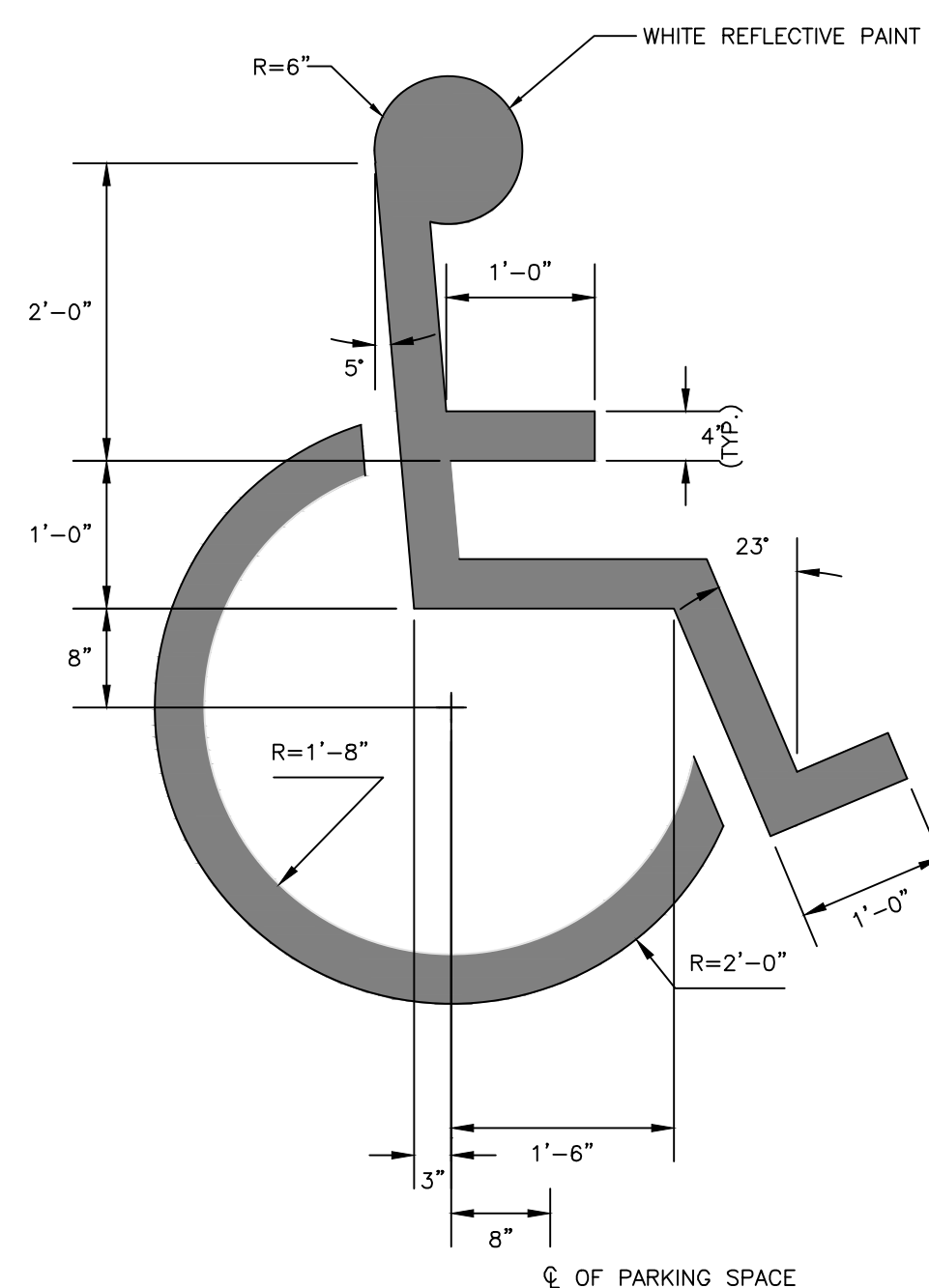
DRAWING NO. **C-40**

NOTES:

1. SEE SITE PLAN FOR PARKING SPACE LAYOUT.
2. WHITE PAINT STRIPES SHALL BE USED ON BITUMINOUS PAVEMENT AND YELLOW PAINT ON PORTLAND CEMENT PAVEMENT.
3. STRIPING FOR ANY NON-BARRIER FREE PARKING SPACE WITH A WIDTH LESS THAN 18' SHALL BE PAINTED BLUE.



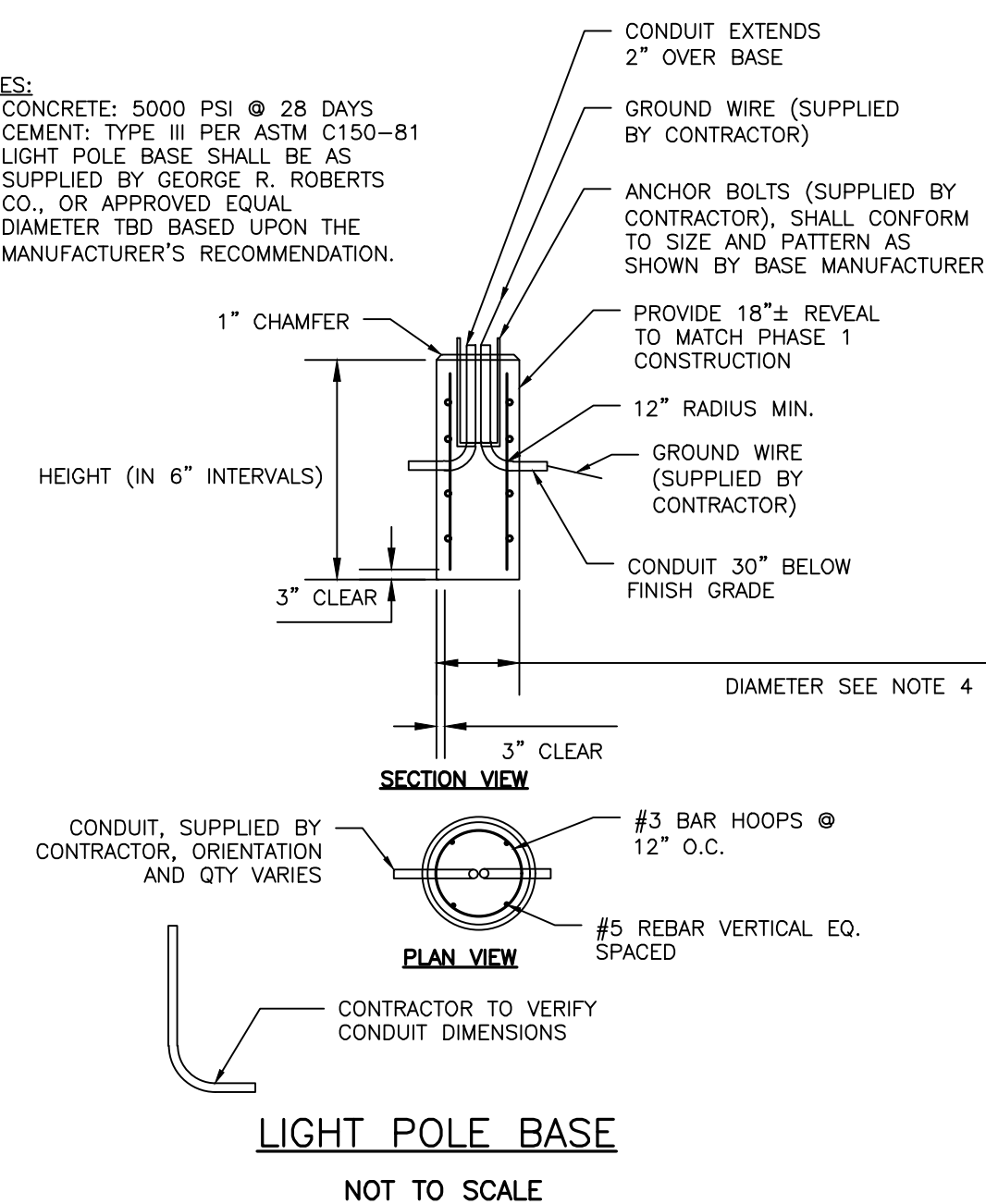
PARKING SPACE DIMENSIONS
NOT TO SCALE



INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE

NOTES:

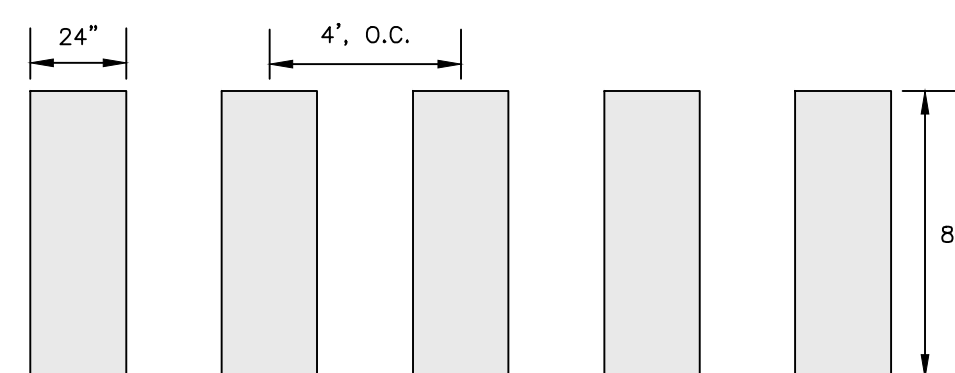
1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.



LIGHT POLE BASE
NOT TO SCALE

NOTE:

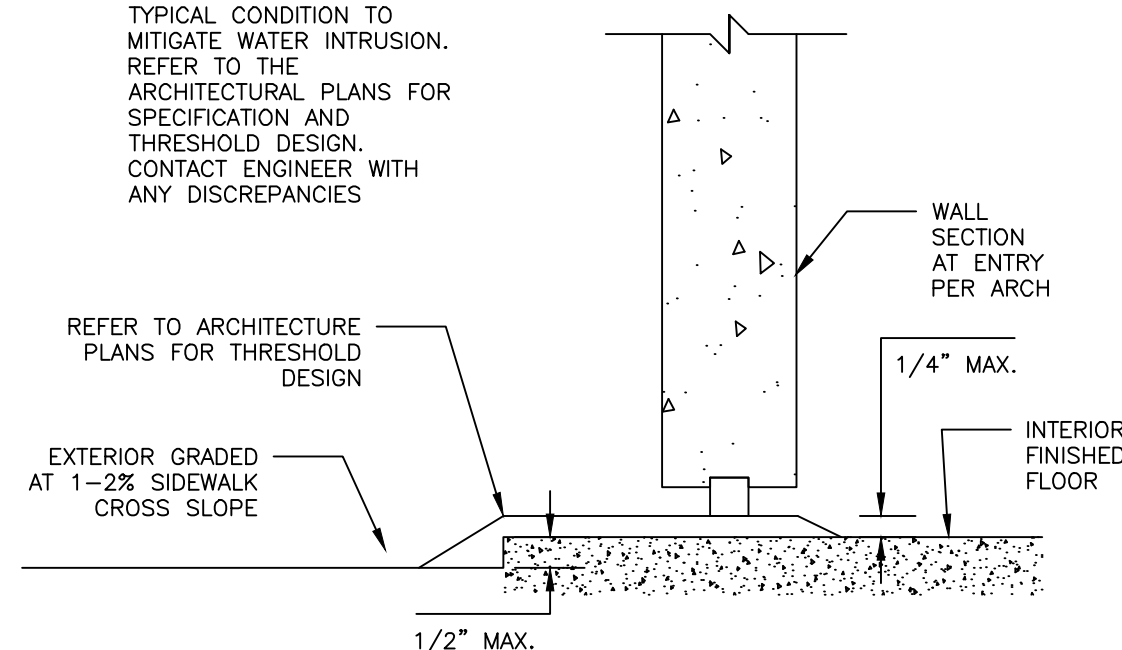
1. CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
2. CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
3. 8' LENGTH OF BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.



BLOCK CROSSWALK
NOT TO SCALE

NOTES:

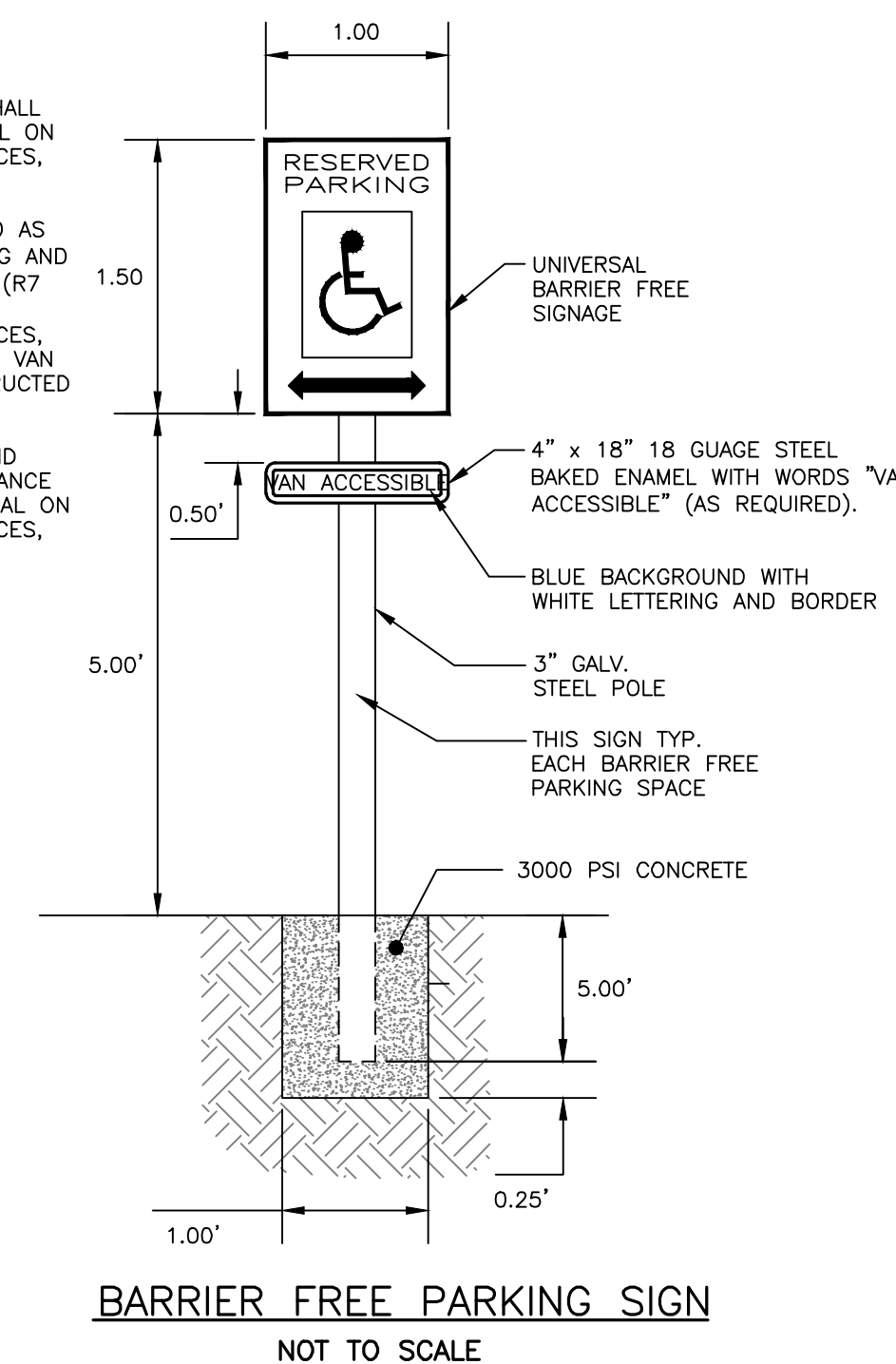
1. THIS DETAIL REPRESENTS A TYPICAL CONDITION TO MITIGATE WATER INTRUSION. REFER TO THE ARCHITECTURAL PLANS FOR SPECIFICATION AND THRESHOLD DESIGN. CONTACT ENGINEER WITH ANY DISCREPANCIES



TYPICAL THRESHOLD DETAIL
NOT TO SCALE

NOTES:

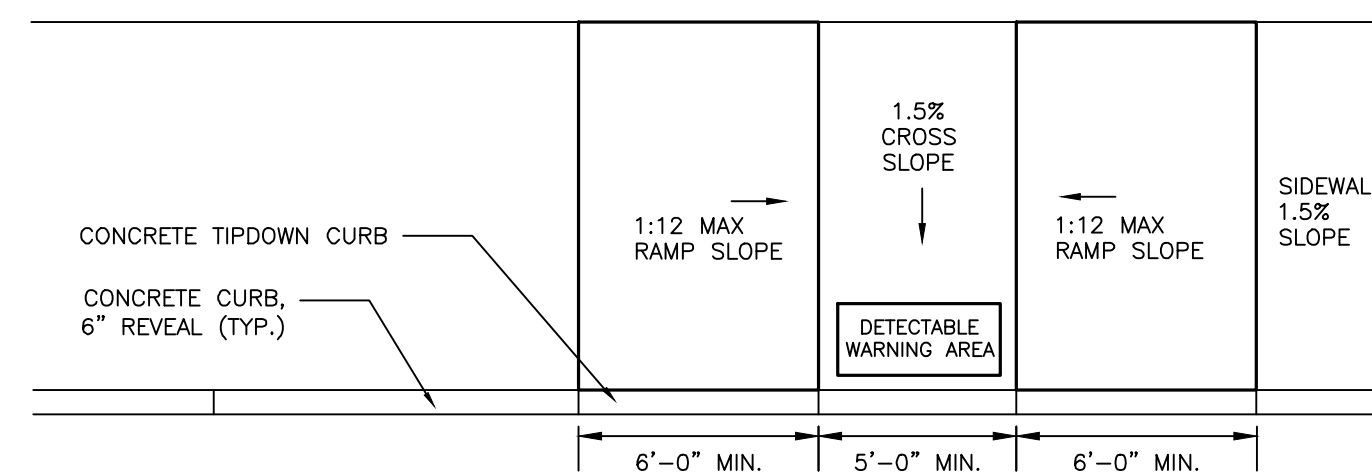
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2023 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2023 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8a OR R7-8b.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2023 OR MOST RECENT EDITION.



BARRIER FREE PARKING SIGN
NOT TO SCALE

NOTES:

1. ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.
2. ALL CURB ADJACENT TO RAMP SHALL BE FLUSH WITH PAVEMENT.



PARALLEL SIDEWALK RAMP LAYOUT
NOT TO SCALE

ISSUED FOR	BY	DATE
PDR	WHS	7/7/16
100% REVIEW	WHS	4/20/18
FIRE MARSHALL	WHS	5/17/18
PRELIM SITE PLAN	WHS	6/6/18
FINAL SET	WHS	7/24/18
CONSTRUCTION	WHS	8/22/18
PH II REVIEW	WHS	4/26/24
PH II PERMIT	WHS	5/22/24
PH II PERMIT RESPONSE	WHS	6/18/24

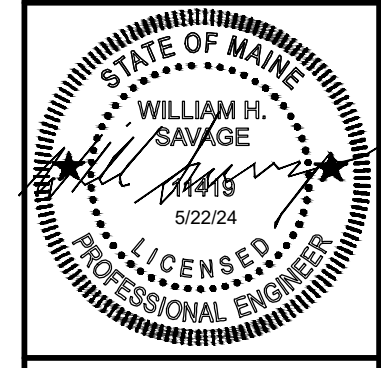
DRAWING NAME: **SITE DETAILS - 2**
PROJECT NAME: **HILTON HOME2 REDEVELOPMENT**
CLIENT: **GIRI HOTEL MANAGEMENT**
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

A C C O R N
ENGINEERING, INC.

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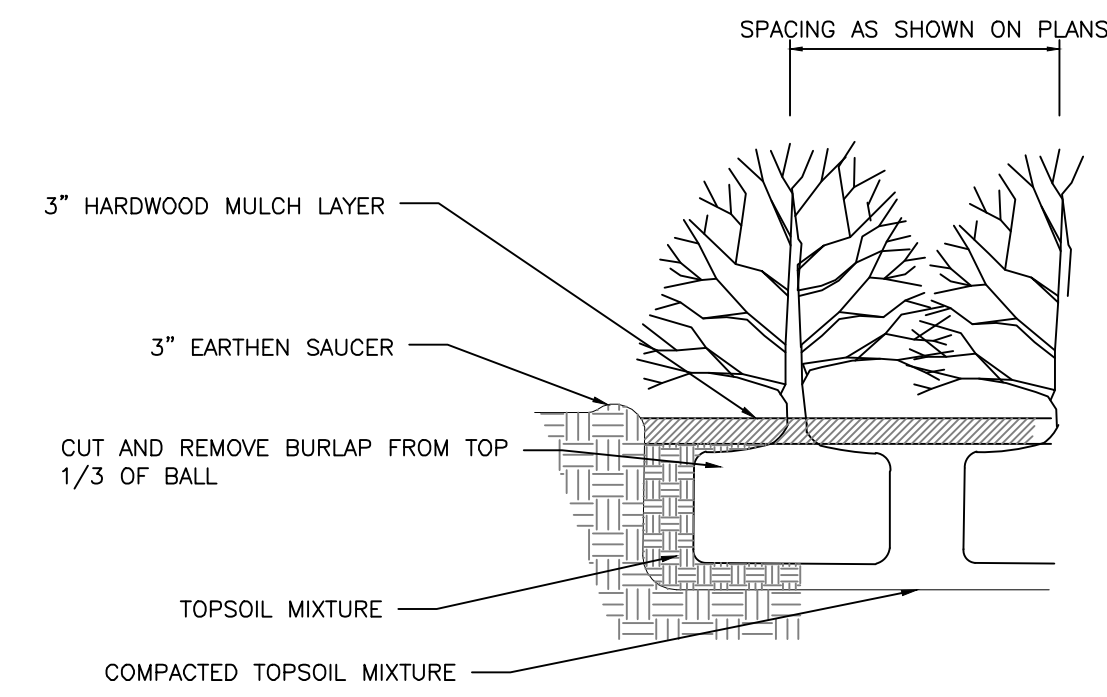
ACCORN ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2855

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DRAWN BY: SJL/FAB
CHECKED BY: WHS

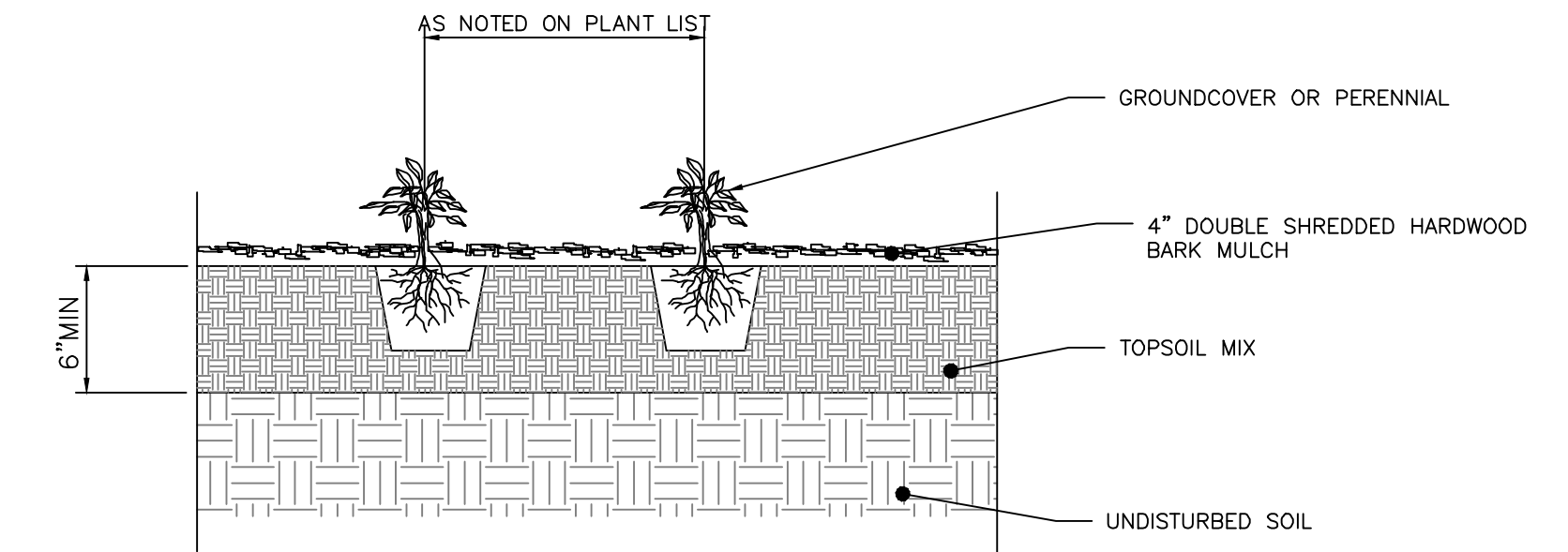


PERMIT LEVEL
NOT FOR
CONSTRUCTION

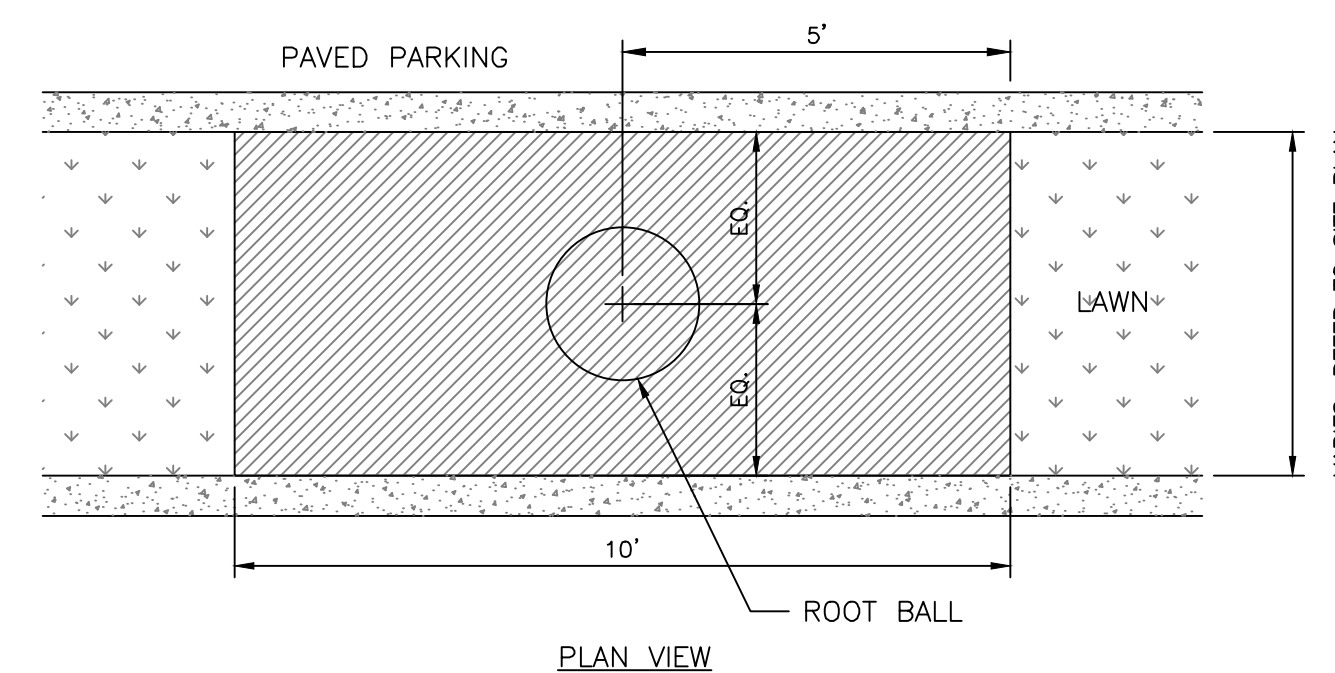
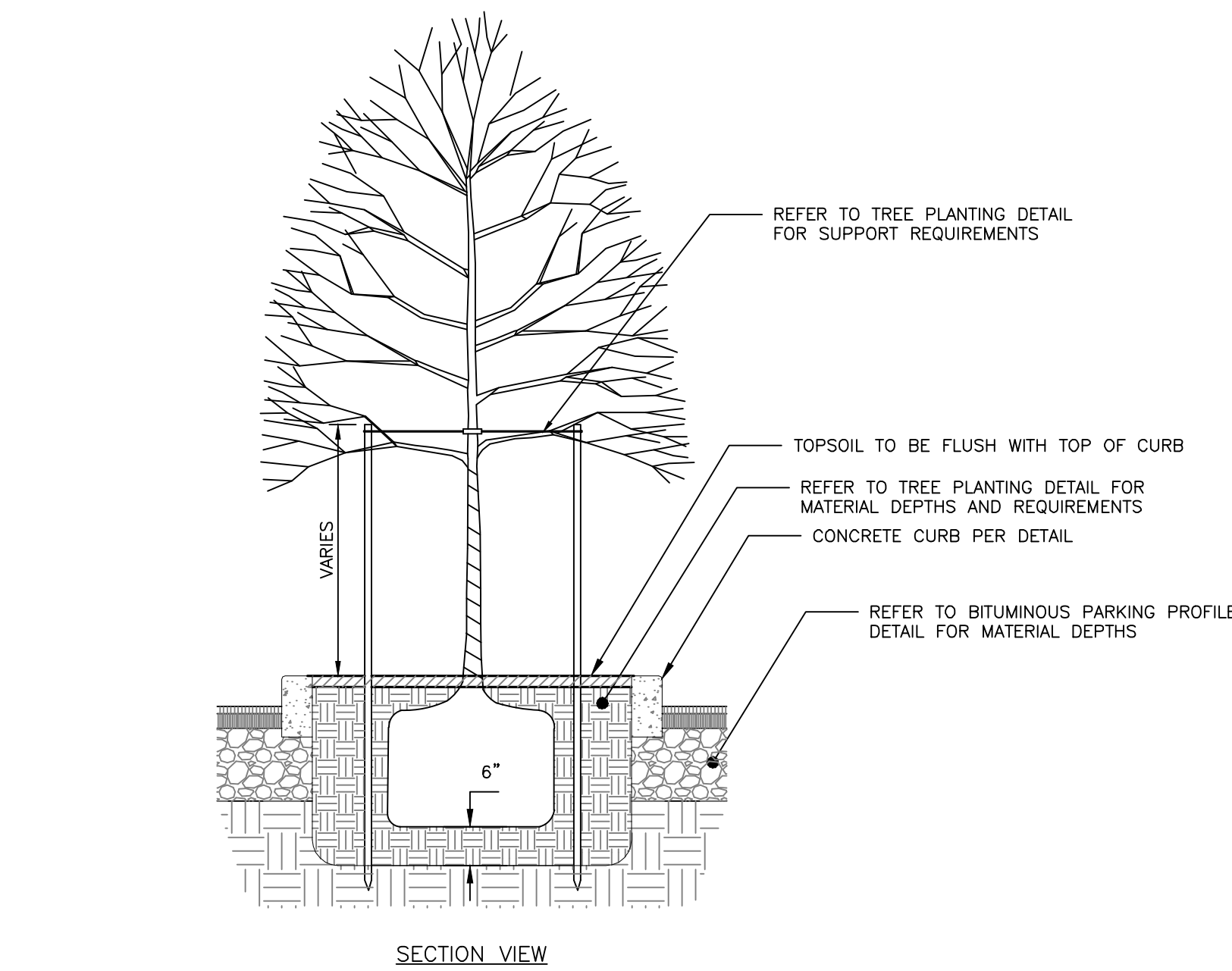
DRAWING NO.
C-41



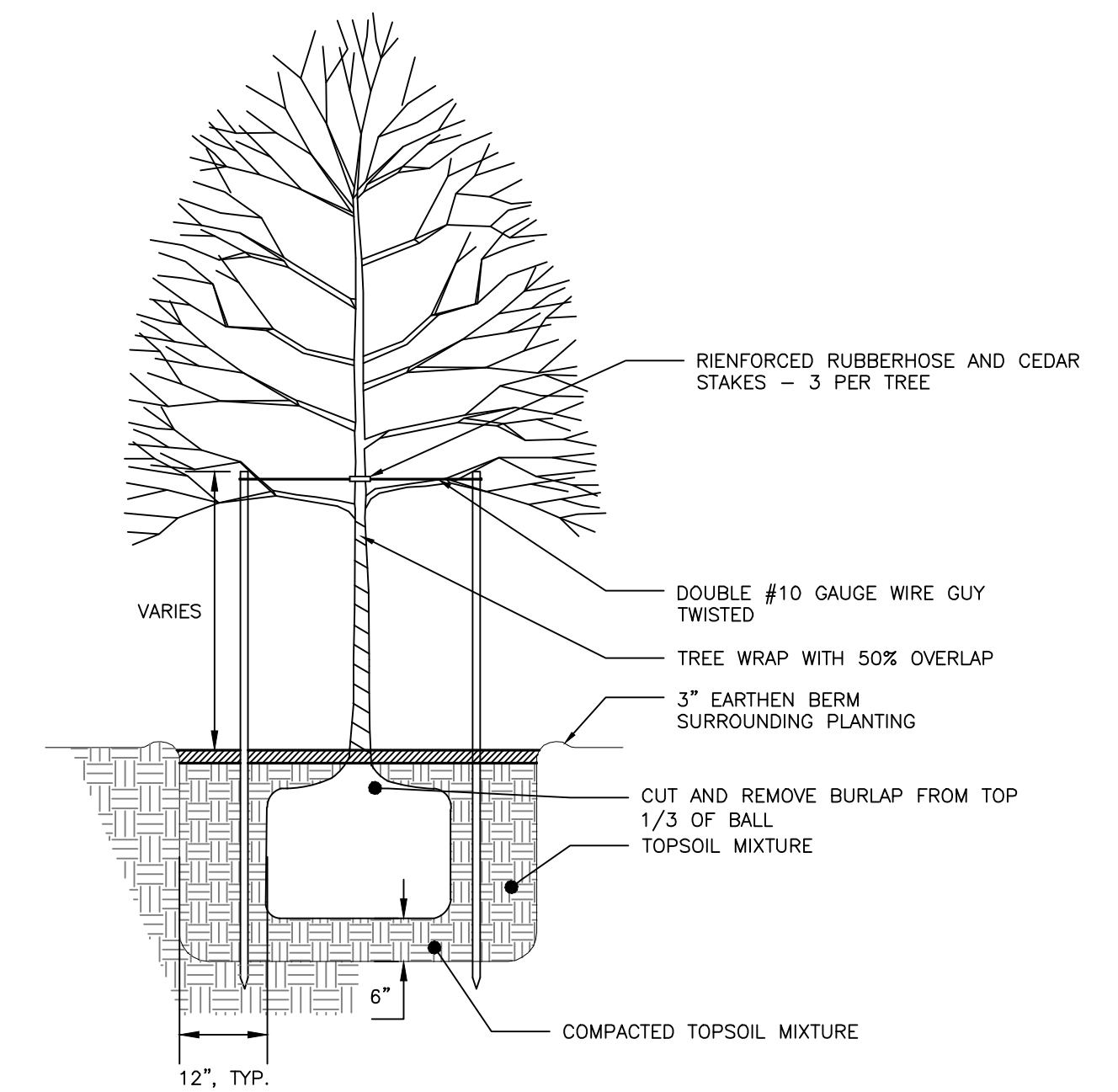
SHRUB PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE



TREE PLANTING IN PARKING ISLAND DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE

PLANTING NOTES:

- ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WITH CITY OF BANGOR REQUIREMENTS AND STANDARDS, CHAPTER 165.
- NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN IMMEDIATE AREA.
- CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
- IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
- ALL PLANTINGS SHALL BE GROWN IN CONTAINER A MINIMUM OF 6 MONTHS.
- ALL LANDSCAPE MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
- CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO THE OWNER.
- CONTRACTOR SHALL GUARANTEE NEW PLANT MATERIAL THROUGH ONE CALENDAR YEAR FROM TIME OF PROVISIONAL ACCEPTANCE.
- THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE. ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
- ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING RED FESCUE, 20% CHEWINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST

WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.

- STAKING AND GUYING SHALL BE DETERMINED BY THE ENGINEER ON A TREE BY TREE BASIS. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
- FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
- ENGINEER TO FLAG TREES TO BE PROTECTED ON SITE.
- DIG HOLE AT LEAST 2 TIMES THE DIA. OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT GROUND LEVEL CORRECT HOLE DEPTH AS REQUIRED.
- TOPSOIL BACKFILL SHALL BE NATURAL FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING THE CHARACTERISTICS OF TOPSOILS IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A pH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.0.
- CONTAINER GROWN STOCK REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
- BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE BALLED PLANTS. BACKFILL TO FINISH GRADE AND CREATE AN EARTHEN SAUCER. SOAK PLANTS WITH WATER TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.

PERMIT LEVEL
NOT FOR
CONSTRUCTION

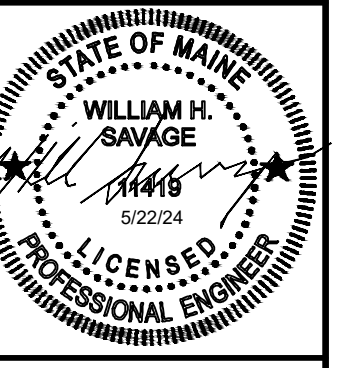
ISSUED FOR	BY	DATE
PDR	WHS	7/7/16
100% REVIEW	WHS	4/18/18
FIRE MARSHALL	WHS	5/11/18
PRELIM SITE PLAN	WHS	6/6/18
FINAL SET	WHS	7/24/18
CONSTRUCTION	WHS	7/27/18
PH II REVIEW	WHS	7/28/24
PH II PERMIT	WHS	7/22/24
PH II PERMIT RESPONSE	WHS	8/18/24

DRAWING NAME: LANDSCAPING DETAILS
PROJECT NAME: HILTON HOME2 REDEVELOPMENT
CLIENT: GIRI HOTEL MANAGEMENT
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC. ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2855

THIS PLAN SHALL NOT BE ACQUIRED, REPRODUCED, COPIED, OR ALTERED WITHOUT THE WRITTEN AUTHORIZATION OF ACORN ENGINEERING, INC. ANY ALTERATIONS, REVISIONS, OR ADDITIONS SHALL BE THE RESPONSIBILITY OF ACORN ENGINEERING, INC.

FILE: 1071_CIVIL
JN: 1071
SCALE: NTS
DESIGNED BY: WHS
DRAWN BY: SJL/FAB
CHECKED BY: WHS

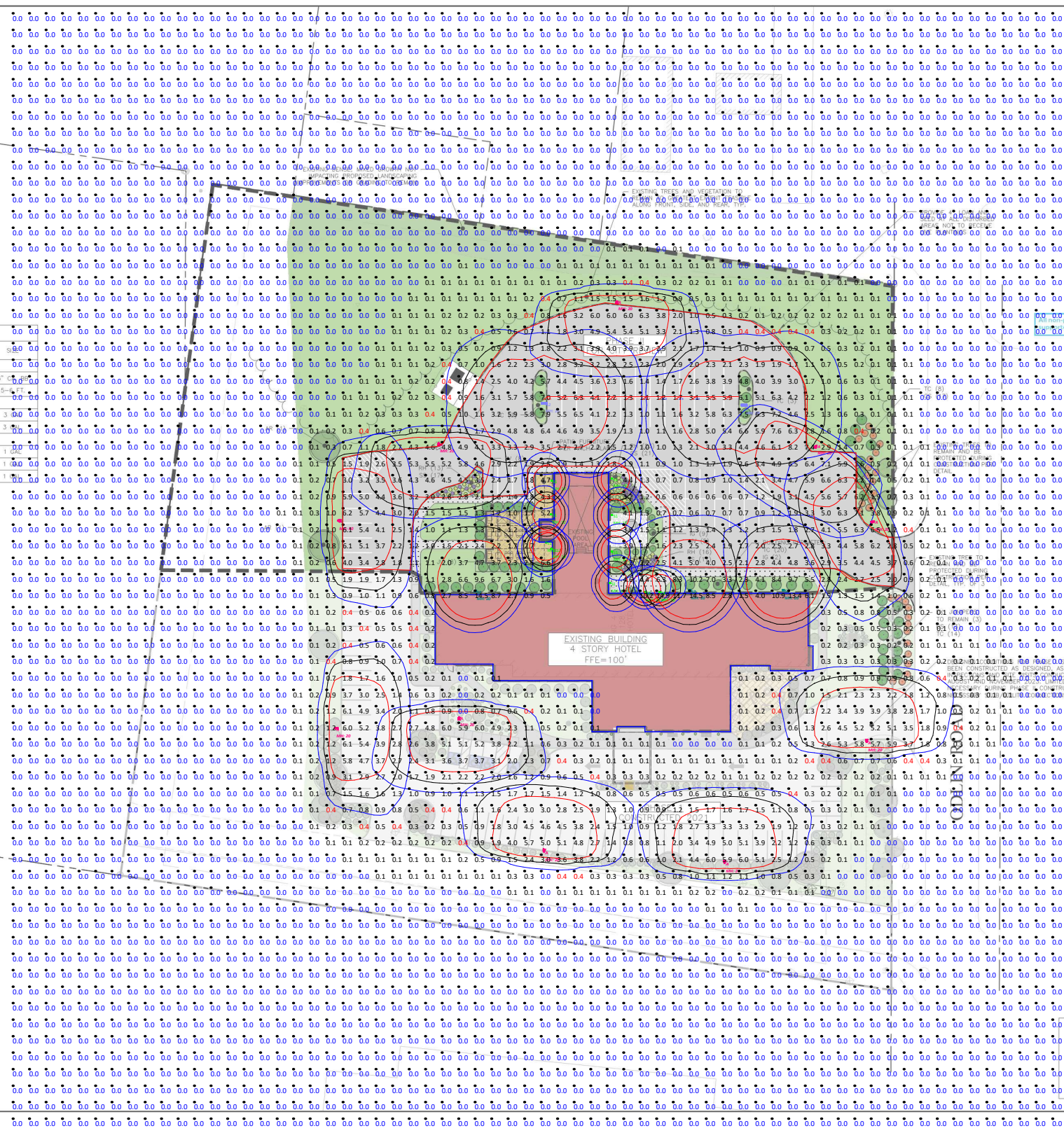


DRAWING NO. C-42

- GENERAL NOTES:
- ALL PROPOSED LANDSCAPE CONSTRUCTION AND PLANT SPECIES SHALL COMPLY WITH CITY OF BANGOR REQUIREMENTS AND CONSTRUCTION STANDARDS. ANY SUBSTITUTIONS TO THE PROPOSED PLAN ARE TO BE REVIEWED FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- STREET FRONTAGE BUFFER YARDS ARE TO COMPLY WITH TYPE B, SUBTYPE 1 REQUIREMENTS AS SET IN CITY OF BANGOR REQUIREMENTS (CHAPTER 105, ATTACHMENT 1), PER 100 LINEAR FEET OF 25 FOOT FRONTAGE, A MINIMUM OF 1 DECIDUOUS TREE, 3 EVERGREEN, AND 10 SHRUBS ARE TO MAINTAINED AT THE STANDARDS SET IN ARTICLE 105.
- SIDE BUFFER YARDS ARE TO COMPLY WITH TYPE A, SUBTYPE A REQUIREMENTS PER CITY REQUIREMENT. PER 100 LINEAR FEET OF A 10 FOOT SETBACK, A MINIMUM OF 2 DECIDUOUS TREES, 3 EVERGREEN, AND 6 SHRUBS ARE REQUIRED. THE EXISTING DENSE FOLIAGE MEETS AND EXCEEDS THESE REQUIREMENTS.
- EXISTING SHADE SPRUCE TREES ARE PROPOSED TO BE REMOVED AND REPLACED WITH NEW LANDSCAPED AREAS IN COMPLIANCE WITH FRONT BUFFER YARD REQUIREMENTS. PER CITY REQUIREMENT, WRITTEN APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS SHALL BE OBTAINED BEFORE FINAL SUBMISSION.
- CONTRACTOR SHALL VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
- CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
- CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS UNTIL PLANTINGS AND LANDSCAPING BECOMES ESTABLISHED.
- CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
- THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA ONCE THE PLANTINGS ARE ESTABLISHED. NEW PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE-YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY DEFECT GUARANTEE AT NO COST TO THE OWNER.
- ALL PLANTINGS TO BE GROWN IN CONTAINER, MINIMUM OF 6 MONTHS.
- ALL LANDSCAPING MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARDS FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
- FINAL LOCATION OF TREES TO BE DEFINED BY WINDOW LOCATION; NO TREE IS TO BLOCK ANY PROPOSED WINDOWS.
- ALL LANDSCAPING SURROUNDING THE HOTEL AND RESTAURANT SIGNAGE SHALL BE PRUNED AND MAINTAINED AS TO NOT BLOCK OR HINDER THE VISIBILITY OF THE SIGN.
- FINAL IRRIGATION PLAN TO BE DESIGNED BY OTHERS.
- SEE PERMANENT SEEDING TABLE ON SHEET C-46 FOR LAWN AREAS.

ID	BOTANICAL NAME	COMMON NAME	PHASE II QTY
TREES			
AR	ACER RUBRUM	RED MAPLE	2
JV	JUNIPERUS VIRGINIANA	EASTERN JUNIPER	21
SHRUBS			
CS	CORNUS SERCEA 'CARDINAL'	RED OSIER DOGWOOD	30
TC	TAXUS CUSPIDATA	JAPANESE YEW	48
PERENNIAL/GROUNDCOVER			
IG	ILEX GLABRA 'CHAMZIF'	NORCIC INBERRY HOLLY	11
SS	SALVIA SYLVESTRIS	SAGE MAY NIGHT	55
RH	RUDIBECHIA HIRTA	BLACK EYED SUSAN	52

STYLE	ASSOCIATED AREAS
	LANDSCAPED OR GRASSED AREA
	STRUCTURES
	PAVEMENT
	BROOM-FINISHED CONCRETE SIDEWALK
	CRUSHED STONE
	BUFFER YARD TYPE B, SUBTYPE 1 PER CITY OF BANGOR STREET FRONTAGE REQ'S
	PATIO AREA



ISSUED FOR: PDR, 100% REVIEW, FIRE MARSHALL, PRELIM SITE PLAN, COMMENT RESPONSE, FINAL SET, CONSTRUCTION

BY DATE: [Blank]

LANDSCAPE PLAN
HILTON HOME2 REDEVELOPMENT
GIRI HOTEL MANAGEMENT
225 W SQUANTUM ST SUITE 200 QUINCY, MA 02171

ACORN ENGINEERING, INC.
158 BARNHARTT ROAD, SUITE 101
BANGOR, MA 04402
(207) 732-2520

FILE#: 1071
DN: 1071
SCALE: 1"=30'
DESIGNED BY: SJL
DRAWN BY: SJL
CHECKED BY: WHS

DRAWING NO. L-1

SCALE: 1" = 30'

PERMIT LEVEL NOT FOR CONSTRUCTION

Not to Scale

HOLBROOK-ASSOCIATED

Prepared By:
Holbrook-Associated
35 Reservoir Park Drive
Rockland, MA 02370

Job Name:
Hilton Home2 Redevelopment
Bangor, ME

Scale: as noted
Date: 6/17/2024
Project ID: 226107
Rep: AB
Filename: Hilton Home2 Redevelopment.AGI
Drawn By: JHainey





The Lighting Analysis, eZLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by Holbrook-Associated represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by Holbrook-Associated and therefore actual measured results may vary from the actual field conditions. Holbrook-Associated recommends that design parameters and other information be field verified to reduce variation.

Holbrook-Associated neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. Holbrook-Associated neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by Holbrook-Associated. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

Calculation Summary

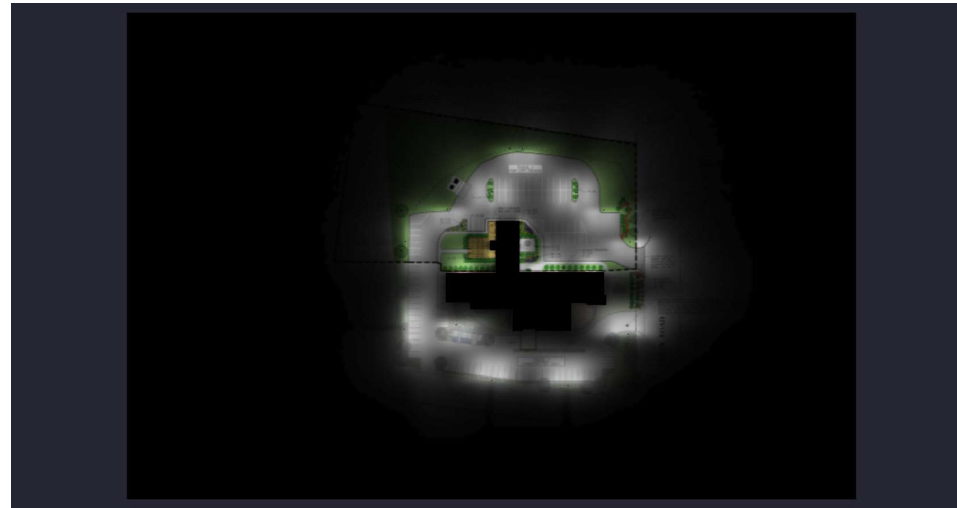
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
Parking Area 1	Illuminance	Fc	2.88	9.0	0.5	5.76	18.00	Readings Taken @ 5'-0" AFG	10	N.A.	Variable
Site	Illuminance	Fc	0.52	14.9	0.0	N.A.	N.A.	Readings Taken @ 0'-0" AFG	10	10	Horizontal
Walkway	Illuminance	Fc	3.80	14.8	0.6	6.33	24.67	Readings Taken @ 0'-0" AFG	3	3	Horizontal
Parking Lot	Illuminance	Fc	3.20	9.0	0.4	8.00	22.50	Readings Taken @ 0'-0" AFG			

Luminaire Schedule All quotes/orders generated from this layout must be forwarded to the Local Rep Agency

Symbol	Qty	Tag	Label	Arrangement	LLF	Description	BUG Rating
	10	S1	SLIM17FA15ADJ	Single	1.000	SLIM17FA15ADJ_5K	B1-U1-G0
	3	S2	SLIM17FAFC100	Single	1.000	SLIM17FAFC100_5K at 0_ CCT Setting	B3-U0-G2
	10	A	ALEDM3T - Single	Single	1.000	ALEDM3T, 90W	B1-U0-G2
	2	A2	ALEDM4T - Back To Back	Back-Back	1.000	ALEDM4T, 90W	B1-U0-G3

Expanded Luminaire Location Summary

LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	A	412	378	20	0	0
2	A	734.721	377.168	20	205.223	0
3	A	472	424	20	270	0
4	A	700.247	422.633	20	239.219	0
5	A	580	510	20	270	0
6	A2	537	449	20	0	0
6	A2	535	449	20	180	0
7	A2	658	448	20	0	0
7	A2	656	448	20	180	0
25	A	410.155	252.052	20	0	0
26	A	484.341	257.887	20	270	0
27	A	645.192	171.487	20	90	0
28	A	731.313	244.85	20	90	0
29	A	535.905	178.319	20	85.761	0
30	S1	575.761	340.153	12	0	0
31	S1	596.842	334.725	10	90	0
32	S1	605.875	334.725	10	90	0
33	S1	540.258	402.062	12	180	0
34	S1	537.051	364.724	12	270	0
35	S1	540.13	360.875	12	180	0
36	S1	577.035	403.473	12	0	0
37	S1	577.035	381.32	12	0	0
38	S1	577.035	359.167	12	0	0
39	S1	539.946	381.821	12	180	0
40	S2	494.137	335.31	20	90	0
41	S2	624.149	335.711	20	90	0
42	S2	680.885	335.911	20	90	0
Total Quantity: 27						



Render Image - Top View

NOTES:

* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of Holbrook-Associated.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.

* The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.

* Photometric model elements such as buildings, rooms, plants, furnishings or any architectural details which impact the dispersion of light must be detailed by the customer documents for inclusion in the Holbrook-Associated lighting design model. Holbrook-Associated is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgement when translating customer requests into photometric studies.

* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.



Prepared By:
Holbrook-Associated
35 Reservoir Park Drive
Rockland, MA 02370

Job Name:
Hilton Home2 Redevelopment
Bangor, ME

Scale: as noted

Project ID: 226107

Date: 6/17/2024

Rep: AB

Filename: Hilton Home2 Redevelopment.AGI

Drawn By: JHainey

The Lighting Analysis, eZLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by Holbrook-Associated represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by Holbrook-Associated and therefore actual measured results may vary from the actual field conditions. Holbrook-Associated recommends that design parameters and other information be field verified to reduce variation.

Holbrook-Associated neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. Holbrook-Associated neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by Holbrook-Associated. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

Filename: C:\Users\jholbrook\Documents\AGI32 - Designs\2024 Designs\Adam Bickford\Hilton Home2 Redevelopment\Hilton Home2 Redevelopment.AGI



Color: Bronze

Weight: 3.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	15W
120V	0.13A	Color Temp	3000K/4000K/5000K
208V	0.07A	Color	70 CRI
240V	0.06A	Accuracy	
277V	0.05A	L70 Lifespan	100,000 Hours
Input Watts	14.2/14/14.2W	Lumens	1761/1904/1852 lm
		Efficacy	124/136.2/130.3 lm/W

Technical Specifications

Field Adjustability

Field Adjustable:

Color temperature selectable by 3000K, 4000K and 5000K

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: PL0MVJOV62Q3

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 70W Metal Halide

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.13A, 208V: 0.07A, 240V: 0.06A, 277V: 0.05A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

Photocell:

120-277V Integrated button photocell included.

Surge Protection:

L-N:2.5KV,L/N-GND:2.5KV

Construction

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature :

Max Power Temp Rating: 50°C (122°F)

Middle Power Temp Rating: 50°C (122°F)

Low Power Temp Rating: 50°C (122°F)

Housing:

Precision die-cast aluminum housing and door frame

Lens:

Polycarbonate lens

Mounting:

Hinged wiring access and conduit entries on the back, sides, top and bottom make installation a snap

Cut Off:

Adjustable from 0° (full cutoff) to 90°. 7 settings at 15° each.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Note:

All values are typical (tolerance +/- 10%)

Technical Specifications (continued)

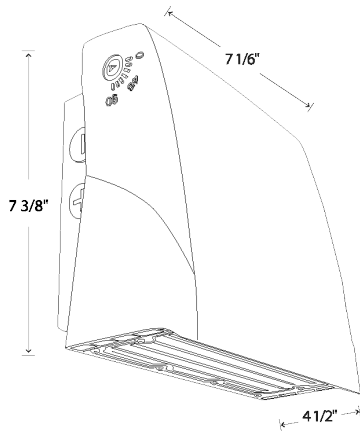
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Selectable CCT
- Adjustable cutoff
- Integrated photocell
- 0-10V dimming, standard

Ordering Matrix

Family	Wattage	Style
SLIM17FA	15	ADJ

15 = 15W ADJ = Angle Adjustable
30 = 30W



Color: Bronze

Weight: 10.6 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.00A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	102/102.8/101W

LED Info

Watts	100W
Color Temp	3000K/4000K/5000K
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	12833/14984/13166 lm
Efficacy	125.8/145.8/130.4 lm/W

Technical Specifications

Field Adjustability

Field Adjustable:

Color temperature selectable by 3000K, 4000K and 5000K

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLUXLTH1OKVW

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Electrical

Driver:

Constant Current, Class 1, 120-277V, 50/60 Hz, 120V: 1.00A, 208V: 0.60A, 240V: 0.50A, 277V: 0.40A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

Photocell:

120-277V selectable photocell that can be turned on and off.

Surge Protection:

L-N:6KV,L-PE:6KV,N-PE:6KV

Construction

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature :

Max Power Temp Rating: 50°C (122°F)
Middle Power Temp Rating: 50°C (122°F)
Low Power Temp Rating: 50°C (122°F)

Housing:

Precision die-cast aluminum housing and door frame

Lens:

Polycarbonate lens

Mounting:

Hinged wiring access and conduit entries on the back, sides, top and bottom make installation a snap

Cut Off:

Full cutoff (0°)

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Note:

All values are typical (tolerance +/- 10%)

Technical Specifications (continued)

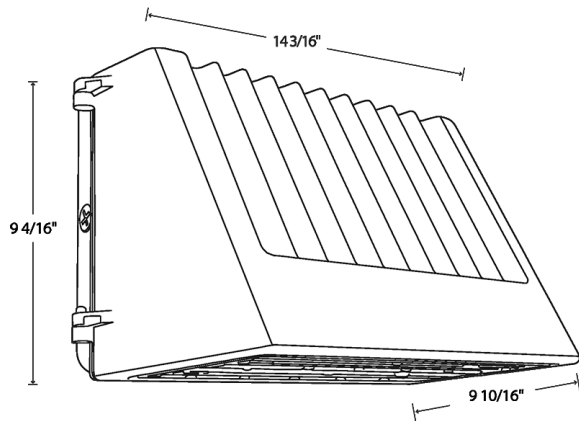
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Selectable CCT
- Full cutoff
- Selectable on/off photocell
- 0-10V dimming, standard

Ordering Matrix

Family	Style	Wattage	Color Temp	Finish	Voltage	Options
SLIM17FA	FC	100				
	FC = Full cutoff	40 = 40W 60 = 60W 100 = 100W 120 = 120W 150 = 150W	Blank = 3000K/4000K/5000K CCT Adjustable	Blank = Bronze	Blank = 120-277V	Blank = Selectable On/Off Photocell /MVS = Selectable On/Off Photocell w/ Microwave Occupancy Sensor



Color: Bronze

Weight: 16.5 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.25A
208V	0.73A
240V	0.63A
277V	0.55A
Input Watts	76/91.6/148.2W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	85 CRI
L70 Lifespan	100,000 Hours
Lumens	10603/12617/19192 lm
Efficacy	139.5/137.7/129.5 lm/W

Technical Specifications

Field Adjustability

Field Adjustable (Wattage):

Field adjustable light output in 3 discrete steps:
Medium Housing: 150W/90W/78W (factory default 150W)

Compliance

UL Listed:

Suitable for wet locations

IP Rating:

Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: S-53X76G

LED Characteristics

LEDs:

Long-life, high-efficiency, discrete, surface-mount LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

78W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.65A, 208V: 0.38A, 240V: 0.33A, 277V: 0.29A

90W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.75A, 208V: 0.44A, 240V: 0.38A, 277V: 0.33A

150W: Constant Current, Non-Class 2, 120-277V, 50/60 Hz, 120V: 1.25A, 208V: 0.73A, 240V: 0.63A, 277V: 0.55A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.59% at 120V, 8% at 277V

Power Factor:

100% at 120V, 95.7% at 277V

Surge Protection:

Line to Line: 10kV
Line to Ground: 6kV

Technical Specifications (continued)

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

Construction

IES Classification:

The Type III distribution is meant to be located near the side of an area, projecting the light outward to fill the area. Ideal for roadways, general parking areas, lighting applications and where a large pool of light is required.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Housing:

Die-cast aluminum

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Lens:

Polycarbonate lens

Reflector:

Aluminum reflector with white polycarbonate

Vibration Rating:

3G vibration rating per ANSI C136.31

Effective Projected Area:

EPA = 0.34

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

Bug Rating:

BUG Rating 150W: B2 U0 G3

BUG Rating 90W: B1 U0 G2

BUG Rating 78W: B1 U0 G2

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

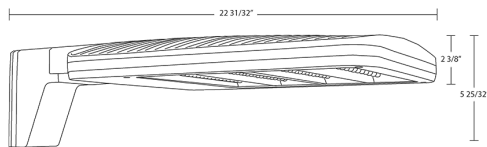
Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

0-10V dimmable standard

IP66 Rated

100,000-Hour LED lifespan

10-Year, No-Compromise Warranty

Ordering Matrix

Family	Housing Size	Distribution	Mounting	Color Temp	Finish	Voltage	Options
ALED	M	3T					
	S = Small (80W/60W/40W) M = Medium (150W/90W/78W) L = Large (260W/220W/170W) XL = Extra Large (385W/345W/300W)	2T = Type II 3T = Type III 4T = Type IV 5T = Type V AT = Auto Dealership Optic	Blank = Universal Pole Mount SF = Slipfitter WM = Wall Mount	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Bronze W = White B = Black	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming ¹	Blank = No Option /7PR = 7 Pin Twistlock Receptacle /WS2 = Wattstopper, 20ft lens /WS4 = Wattstopper, 40ft lens ²

¹ 480V available in Medium, Large & Extra Large fixtures only

² Wattstopper option available in Large & Extra Large fixtures only



Color: Bronze

Weight: 16.5 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.25A
208V	0.73A
240V	0.63A
277V	0.55A
Input Watts	75.2/90.6/146.6W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	85 CRI
L70 Lifespan	100,000 Hours
Lumens	10610/12625/19204 lm
Efficacy	141.1/139.3/131 lm/W

Technical Specifications

Field Adjustability

Field Adjustable (Wattage):

Field adjustable light output in 3 discrete steps:
Medium Housing: 150W/90W/78W (factory default 150W)

Compliance

UL Listed:

Suitable for wet locations

IP Rating:

Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: S-AH0R16

LED Characteristics

LEDs:

Long-life, high-efficacy, discrete, surface-mount LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

78W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.65A, 208V: 0.38A, 240V: 0.33A, 277V: 0.29A

90W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.75A, 208V: 0.44A, 240V: 0.38A, 277V: 0.33A

150W: Constant Current, Non-Class 2, 120-277V, 50/60 Hz, 120V: 1.25A, 208V: 0.73A, 240V: 0.63A, 277V: 0.55A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.67% at 120V, 8.03% at 277V

Power Factor:

100% at 120V, 95.7% at 277V

Surge Protection:

Line to Line: 10kV
Line to Ground: 6kV

Technical Specifications (continued)

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

Construction

IES Classification:

The Type IV distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Housing:

Die-cast aluminum

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Lens:

Polycarbonate lens

Reflector:

Aluminum reflector with white polycarbonate

Vibration Rating:

3G vibration rating per ANSI C136.31

Effective Projected Area:

EPA = 0.34

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

Bug Rating:

BUG Rating 150W: B2 U0 G4

BUG Rating 90W: B1 U0 G3

BUG Rating 78W: B1 U0 G3

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

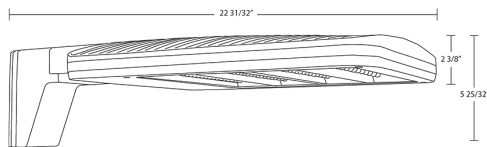
Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

0-10V dimmable standard

IP66 Rated

100,000-Hour LED lifespan

10-Year, No-Compromise Warranty

Ordering Matrix

Family	Housing Size	Distribution	Mounting	Color Temp	Finish	Voltage	Options
ALED	M	4T					
	S = Small (80W/60W/40W) M = Medium (150W/90W/78W) L = Large (260W/220W/170W) XL = Extra Large (385W/345W/300W)	2T = Type II 3T = Type III 4T = Type IV 5T = Type V AT = Auto Dealership Optic	Blank = Universal Pole Mount SF = Slipfitter WM = Wall Mount	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Bronze W = White B = Black	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming ¹	Blank = No Option /7PR = 7 Pin Twistlock Receptacle /WS2 = Wattstopper, 20ft lens /WS4 = Wattstopper, 40ft lens ²

¹ 480V available in Medium, Large & Extra Large fixtures only

² Wattstopper option available in Large & Extra Large fixtures only



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 136.7 lbs

Project:	Type:
Prepared By:	Date:

Technical Specifications

Compliance

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

20 ft

Weight:

137 lbs

Gauge:

11

Wall Thickness:

1/8"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available [online](#).

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

Max EPA's/Max Weights:

- 70MPH 10.7 ft/360 lb.
- 80MPH 7.0 ft/350 lb.
- 90MPH 4.3 ft/350 lb.
- 100MPH 2.5 ft/350 lb.
- 110MPH 1.1 ft/350 lb.
- 120MPH 0.1 ft/340lb

Other

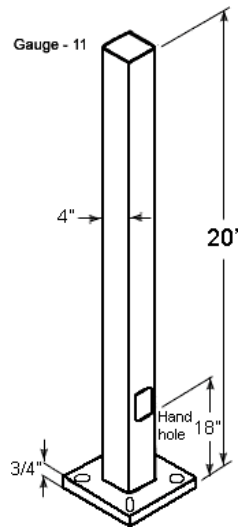
Terms of Sale:

Pole Terms of Sale is available [online](#).

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Pole caps, base covers & bolts are sold separately
- Custom manufactured for each application



Color: Bronze

Weight: 1.2 lbs

Project:

Type:

Prepared By:

Date:

Technical Specifications

Performance

Description:

ALED house side shield with 4 screws

Compatible Products:

ALED Medium Field Adjustable

Construction

Dimensions (LxWxH):

12 3/16" x 12 14" x 6"

Finish:

Formulated for high durability and long-lasting color

Other

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

<-- Back

Print receipt

Payment Receipt

Thank you for making your payment to the **City of Bangor Code Enforcement** through the Maine PayPort service. Your payment has been successfully processed and the details of your transaction(s) are provided below.

Payment Confirmation

*Payment for 327
Odlin Road*

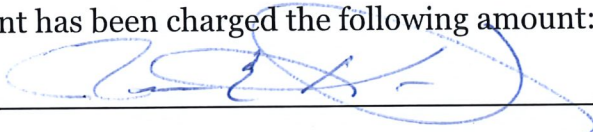
- Order ID: **72345300**
- Transaction Date: **May 31, 2024, 1:06 p.m.**
- Name on Credit Card: **JON KETCHEM**
- Card Number: ****** * * * ***

Order Details

- **Miscellaneous**
- Quantity: **1** | Price: **\$798.00**

Your account has been charged the following amount: **\$817.95**

Signature: _____



The disclosure statement has been read and agreed to by the customer.

The customer has been informed that PayPort is a service offered by a third party working in partnership with the State of Maine and this municipality. As part of our service to you, we will remit the designated portion of your payment to the municipality on your behalf. The balance funds the operation of this and other Maine.gov online services. Conducting business through Maine PayPort is voluntary and the final cost may be higher than using other forms of payment. This service is provided by the Information Resource of Maine (InforME) as designated in statute of (M.R.S.A. Title 1, Ch. 14).

Questions or refunds? Contact the City of Bangor Code Enforcement at 2079924224 or brenda.hanscombilotta@bangormaine.gov



A C O O R N

ENGINEERING, INC.

Planning Division, City of Bangor, Maine
Attn: Ms. Anja Collette – Planning Officer
242 Harlow Street
Bangor, ME 04401

May 23, 2024

Subject: Land Development Application – *Revised*
Redevelopment of 327 Odlin Road - Bangor, Maine

Ms. Collette:

On behalf of Giri Hotel Management, we are pleased to submit the accompanying package of documents and drawings related to proposed improvements to the north (back-of-building) parking and patio area at Home2 Suites at 327 Odlin Road in Bangor. The site lies within the General Commercial & Service zoning district listed under the Map, Lot, Unit R18-009. Note that this submission constitutes a modification of a previously approved Land Development Permit for this site, approved by the Planning Board on August 8, 2018.

A portion of the property improvements approved in 2018 were completed in 2021, primarily at the south (front) of the building. Approved property improvements to the north (back) of the building have not been constructed, and the original permit approval has lapsed. This submission package is intended to seek approval for a second phase of construction on the north side of the building, which is of reduced scope as compared to the 2018 approval. The enclosed materials do not include the detached 4,800 square foot restaurant building and associated parking and utility connections proposed in the 2018 materials. Plans to construct these site elements have been abandoned.

The enclosed materials propose to maintain the existing edge of pavement, slipform curb, line, and grade to the north of the hotel, as well as all existing treelines. Modest grade changes will occur within some areas of this parking lot to transition existing parking lot grades to the proposed patio and sidewalks at the building. Installation of landscaping and curbed parking islands as shown will result in a net decrease in impervious area of approximately 5600 square feet. Site drainage will be improved through installation of field drains in landscaped and hardscaped areas to tie into the drainage system installed in 2021, in keeping with the 2018 approved design. Additionally, stone aprons are proposed to reduce erosion potential at points where runoff exits the parking area.

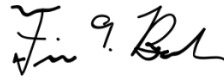
No modifications to the building interior are proposed, and occupancy of the hotel will remain at 79 rooms which is a reduction from the 2018 90-room hotel occupancy. Proposed work is in alignment with Hilton's Property Improvement Plans to match 2021 construction. The preliminary site plan was designed to the standards set by the City Ordinances, the Maine DEP Best Management Practices Manual, and applicable utility design guidelines. Through communication with City staff, it is our understanding that resubmission of stormwater, traffic, and erosion control reports originally submitted in 2018 may not be necessary due to the reduced scope of the proposed materials, which maintain existing land use, development footprint, 2018 approved drainage patterns.

Giri Hotel Management and the design team look forward to your review of this revised submission. If you have any questions regarding the project or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Finn A. Bondeson, P.E.
Project Engineer
Acorn Engineering, Inc.

The following documents and drawings have been included with this submission.

Documents:

- Attachment I: Land Development Permit Application
- Attachment II: Right, Title, Interest
- Attachment III: Financial Standing

Drawings:

- Civil Plan Set, Dated 5/22/24
- Photometric Plan by Holbrook-Associated, Dated 3/22/2024
- Patio Canopy Plan and Elevations, by Ryan Senatore Architecture, Dated 4/4/24

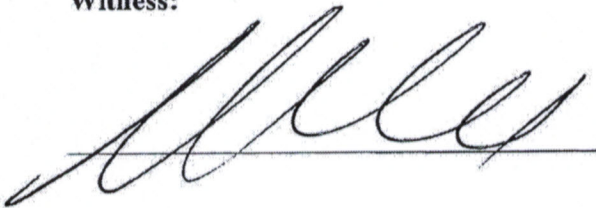


QUITCLAIM DEED WITH COVENANT

Lodging Equities Limited Liability Company, a Maine Limited Liability Company with a mailing address at P.O. Box 1150, Auburn, Maine 04211-1150, grants to **Giri Bangor Odlin, LLC**, a Maine Limited Liability Company with a mailing address at 1212 Hancock Street, Suite 200, Quincy, Massachusetts 02169, with **Quitclaim Covenant**, certain lots or parcels of land, together with any buildings situated thereon, located in **Bangor**, County of **Penobscot**, and State of **Maine**, as more fully described in Exhibit "A" attached hereto and made a part hereof.

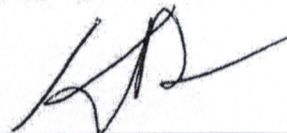
In Witness Whereof, the undersigned has hereunto set its hand effective this 10th day of September, 2015.

Witness:



STATE OF MAINE
ANDROSCOGGIN, SS.

Lodging Equities Limited Liability Company

By: 
Kevin B. Dean, Manager

September 10, 2015

Personally appeared the above-named **Kevin B. Dean**, in his capacity as Manager of **Lodging Equities Limited Liability Company**, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said entity.

Before me,


Notary Public/Attorney-At-Law

Print Name: _____

My Commission Expires: _____

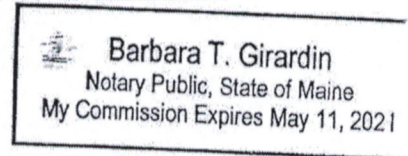

Barbara T. Girardin
Notary Public, State of Maine
My Commission Expires May 11, 2021

EXHIBIT A

A certain lot or parcel of land with the buildings thereon situated in the City of Bangor, County of Penobscot and State of Maine, more particularly described as follows:

That part of the following described parcels of land with the buildings thereon which lies easterly of the westerly line of the perpetual easement of right of way for the construction, location, maintenance and operation of a standard gauge railroad as taken by the United States of America from Arthur W. Kelley and Dorothy F. Kelley by Judgment on Declaration of Taking, Petition for Condemnation and Confirmatory Decree, all recorded in the Penobscot Registry of Deeds in Book 1168, Pages 382 and 478 and Book 1177, Page 426, to wit:

FIRST PARCEL: A certain lot or parcel of land situated on the northwesterly side of the Odlin Road in said Bangor, and bounded and described as follows:

BEGINNING at a point on the northwesterly side of said Odlin Road at the most southerly corner of the land formerly of Arthur W. Kelley and Dorothy F. Kelley and also being the most easterly corner of the land on said northwesterly side of said Odlin Road, now or formerly owned by Barbara Simpson;

Thence westerly along a wire fence on the boundary line between said Kelley land and the land of said Barbara Simpson to the easterly side of the Railroad Spur Track;

Thence continuing on the same course along said wire fence from the westerly side of said Spur Track to the most westerly corner of said Kelley land;

Thence North $32^{\circ} 43' 19''$ East 428.70 feet, more or less, along a line fence to the most northerly corner of said Kelley land;

Thence South $55^{\circ} 49' 59''$ East 509.93 feet, more or less, along a line fence to the westerly side of said Spur Track;

Thence continuing on the same course from the easterly side of said Spur Track along the generally southerly side of land now or formerly owned by Barbara Simpson and Raymond Cox to the northwesterly side of said Odlin Road at the most easterly corner of said Kelley land and at the most southerly corner of Cox land;

Thence southwesterly along the northwesterly side of said Odlin Road to the point of beginning.

EXCEPTING and RESERVING, however, all those portions of the above-described premises taken by United States of America or conveyed by said Arthur W. Kelley and Dorothy F. Kelley to United States of America and this conveyance is also hereby made subject to such easements as may have been taken by United States of America or deeded by said Arthur W. Kelley and Dorothy F. Kelley to United States of America, for the construction, maintenance and operation

of a railroad spur track through said premises, and for an access road from said Odlin Road to said Spur Track and a loading zone at said track, and a safety zone easement over all of said premises lying westerly of said Spur Track and being about 5.14 acres in area. Said exceptions and reservations being the same recorded in said Registry of Deeds in Book 1168, Page 382; Book 1168, Page 478; Book 1177, Page 426; Book 1182, Page 370; Book 1189, Page 51; Book 1189, Page 23, Book 1189, Page 151 and Book 1871, Page 91.

PARCEL TWO: A certain lot or parcel of land situated on the northwesterly side of the Odlin Road in said Bangor, and bounded and described as follows:

BEGINNING at a point in the westerly right of way line of Odlin Road, which point is northeasterly along said right of way line a distance of 20 feet from the southeasterly corner of a tract of land now or formerly owned by Arthur and Dorothy Kelley;

Thence northwesterly along a line parallel with the southerly line of said Kelley tract a distance of 314.1 feet;

Thence southwesterly along a line parallel with the westerly right of way line of Odlin Road a distance of 20 feet to a point in the southerly line of said Kelley tract;

Thence northwesterly along said last mentioned line a distance of 115 feet to the easterly right of way line of a railroad spur track now owned by the United States;

Thence northeasterly along the easterly line of said railroad spur track a distance of 426.1 feet to land now or formerly of Earl Simpson;

Thence southeasterly by land now or formerly of Earl Simpson, a distance of 115 feet;

Thence southwesterly along a line parallel with the westerly right of way line of Odlin Road a distance of 359.6 feet to a point;

Thence southeasterly along a line parallel with the southerly line of said Kelley tract a distance of 258.3 feet to the westerly right of way line of Odlin Road;

Thence southwesterly along said right of way line of Odlin Road a distance of 50.5 feet to the point of beginning.

The above-described premises are conveyed subject to the existing easements for public roads and highways and for public utilities, railroads and pipelines.

The description above is the historic description of the real estate being conveyed hereby. Plisga & Day, Land Surveyors of Bangor, Maine, surveyed the real estate and developed a new legal description for the real estate, which is attached hereto as Schedule A-1. The Grantor therefore hereby conveys all of its right, title, and interest in and to the real estate as also described in said Schedule A-1, but without any quitclaim or other covenants of any kind.

SCHEDULE A-1:

A certain parcel of land, with improvements thereon, situated on the westerly side of the Odlin Road, so-called, in the City of Bangor, County of Penobscot and State of Maine, being more particularly bounded and described as follows:

BEGINNING at a set iron rod on the westerly side of said Odlin Road at the easterly corner of lands now or formerly of Grant and Longo, described in the deed recorded in Book 2203, Page 180 of the Penobscot County Registry of Deeds;

Thence North 55° 39' 27" West along said lands of Grant and Longo, a distance of 425.95 feet to the easterly line of the Maine Central Railroad, being a perpetual easement to the United States of America, described in the deed recorded in Book 1168, Page 382 and Page 478 and in Book 1177, Page 426 of said Registry;

Thence continuing North 55° 39' 27" West across said railroad easement a distance of 50.00 feet to a found iron rod and the southerly corner of lands now or formerly of Anthony J., Jr. and Marilyn C. Frederick described in the deed recorded in Book 3788, Page 160 of said Registry;

Thence North 33° 27' 18" East along said westerly line of said railroad easement and the easterly line of lands of said Frederick and lands now or formerly of the United States of America described in the deed recorded in Book 1189, Page 151 of said Registry a distance of 426.15 feet to a point;

Thence South 55° 41' 47" East across said railroad easement a distance of 50.00 feet to a found iron rod;

Thence continuing South 55° 41' 47" East along lands now or formerly of Ora Cox, described in the deed recorded in Book 3084, Page 259 of said Registry a distance of 371.03 feet to a found iron rod on the northwesterly line of said Odlin Road;

Thence South 26° 07' 54" West along said Odlin Road sideline a distance of 430.80 feet to the point of beginning.

Including the Maine Central Railroad right of way and all other easements.

SUBJECT TO the Maine Central Railroad perpetual easement described in the deed of Arthur W. and Dorothy F. Kelley to the United States of America described in the deed recorded in Book 1168, Page 382 and Page 478 and Book 1177, Page 426 of said Registry.

SUBJECT TO the slope and drainage easements acquired by the State of Maine described in Book 1742, Page 162 and Book 1763, Page 11 of said Registry.

SUBJECT TO a 66-foot wide right of way from the Odlin Road to the property situated

westerly of the railroad right of way as reserved by Mildred J. Altschuler, et al, in the deed recorded in Book 3593, Page 57 of said Registry.

SUBJECT TO the rights to tie into water and sewer lines for the purpose of serving improvements hereafter located on the land situated westerly of the railroad right of way as described in the deed from Mildred J. Altschuler, et al, recorded in Book 3593, Page 57 of said Registry.

SUBJECT TO a 50' wide right of way excepted and reserved in the deed of Anthony J., Jr. and Marilyn C. Frederick to Budget Traveler Motels Limited Partnership, recorded in Book 4975, Page 2. See also right of way reserved in the deed from S&G Properties to New Hampshire Savings Bank, Trustee of Frederick 1031 Trust, recorded in Book 3788, Page 155.

SUBJECT TO the avigation/air space easement granted by Anthony J., Jr. and Marilyn C. Frederick to the City of Bangor, recorded in Book 4901, Page 276 of said Registry.

SUBJECT TO an underground electrical easement described in the deed from Budget Traveler Motels Limited Partnership to Bangor Hydro-Electric Company and Black Beard's, Inc., recorded in Book 5840, Page 37 of said Registry.

Reference is made to the "Subordinate Agreement" between Anne J. Brown, et al and the City of Bangor, dated May 9, 1974 and recorded in Book 2474, Page 61 of said Registry relating to the right of the City of Bangor to levy a sewer assessment at such time or times as the owner or tenant in possession of the premises requests permission to enter the sewer.

The basis of bearings for this description is Grid North.

This description is based on the plan entitled "Standard Boundary Survey of the Budget Traveler Motor Lodge, 327 Odlin Road-Bangor, Maine for Lodging Equities Limited Liability Company", dated November 28, 1995 and revised December 12, 1995 by Plisga & Day Land Surveyors of Bangor, Maine.

The above-described premises being the same premises conveyed by Quitclaim Deed with Covenant from Budget Traveler Motels Limited Partnership to Lodging Equities Limited Liability Company dated December 19, 1995, recorded in the Penobscot County Registry of Deeds at Book 6017, Page 238.

The above-described premises is conveyed subject to the following encumbrances:

1. Title to and rights of the public and others entitled thereto in and to those portions of premises lying within the bounds of adjacent streets, roads, and ways.
2. Rights and easements granted to the United States of America by Arthur W. Kelley and Dorothy F. Kelley for construction, location, maintenance and operation of a railroad spur track and for an access road from Odlin Road to said spur track and a loading zone at said track and a safety zone easement over a portion of the premises as set forth in instruments dated June 24, 1941

and recorded in the said Registry of Deeds at Book 1168, Page 382, dated July 7, 1941 and recorded in the said Registry of Deeds at Book 1168, Page 478; dated February 17, 1942 and recorded in the said Registry of Deeds at Book 1177, Page 426; dated June 10, 1942 and recorded in the said Registry of Deeds at Book 1182, Page 370; dated June 8, 1942 and recorded in the said Registry of Deeds at Book 1189, Page 23; dated January 16, 1943 and recorded in the said Registry of Deeds at Book 1189, Page 51; dated June 9, 1943 and recorded in the said Registry of Deeds at Book 1189, Page 151; and dated December 10, 1962 and recorded in the said Registry of Deeds at Book 1871, Page 91.

3. By deed dated June 9, 1943 and recorded in the said Registry of Deeds at Book 1189, Page 151, Arthur W. Kelley and Dorothy F. Kelley conveyed a triangular parcel of land, containing 1133 square feet, more or less to the United States of America. This parcel is not covered by an quitclaim covenants.

4. Rights and easements for slopes and drainage acquired by the State of Maine as set forth in instruments recorded in the said Registry of Deeds at Book 1742, Page 162 and dated January 3, 1961 and recorded in Book 1763, Page 11.

5. Rights and easements in a 66 foot wide right of way from Odlin Road to the property situated westerly of the railroad right of way and rights to tie into water and sewer lines without charge for said property situated westerly of the railroad right of way as reserved in deed of Mildred J. Altschuler et al dated October 29, 1984 and recorded in the said Registry of Deeds at Book 3593, Page 57.

6. Rights and easements in a 50 foot wide right of way reserved in deed from S&G Properties to New Hampshire Savings Bank, Trustee of Frederick 1031 Trust dated February 27, 1988 and recorded in the said Registry of Deeds at Book 3788, Page 155 and as set forth in deed of Anthony J. Frederick, Jr. and Marilyn C. Frederick to Budget Traveler Motels Limited Partnership recorded in Book 4975, Page 2 and in Book 6017, Page 238.

7. Easements and rights to the space above 180' mean sea level over the insured premises and the land situated westerly of the railroad right of way as set forth in an Avigation/Air Space Easement granted by Anthony J. Frederick and Marilyn C. Frederick to the City of Bangor dated June 19, 1991 and recorded in the said Registry of Deeds at Book 4901, Page 276.

8. Such state of facts as set forth on a plan entitled "Standard Boundary Survey of the Budget Traveler Motor Lodge for Hotel Equities, Inc." dated November 14, 1995, prepared by Plisga & Day Land Surveyors, including, the following:

a. Slope and drainage easements 4-1 and 4-2 acquired by the State of Maine recorded in the said Registry of Deeds at Book 1742, Page 162 and Book 1763, Page 11.

b. Perpetual easement from Arthur W. Kelley and Dorothy F. Kelley to the United States of America recorded in Book 1168, Page 382 and 478 and Book 1177, Page 426.

c. Fifty-five (55) foot wide right of way described in the said Registry of Deeds at Book 4975, Page 2 and also described in Book 3788, Page 155.

d. Thirty (30) foot wide underground electrical easement as set forth in an instrument from Budget Traveler Motels Limited Partnership and Black Beards, Inc. recorded in the said Registry of Deeds at Book 5840, Page 37.

e. Existing Buildings, concrete walk, curb cuts and islands, propane tanks with fence enclosure; transformer, shed, paved parking area, lamp posts and water gats and valve.

9. Easements and rights granted to the Bangor Hydro-Electric Company as set forth in a Joint Underground Easement from Budget Traveler Motels Limited Partnership and Black Beard's, Inc. dated April 21, 1995 and recorded in the said Registry of Deeds at Book 5840, Page 37.



MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Wed May 22 2024 14:58:24. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
GIRI BANGOR ODLIN, LLC	20154354DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
05/04/2015	N/A	MAINE

Other Names (A=Assumed ; F=Former)
NONE

Principal Home Office Address

Physical

2300 CROWN COLONY DRIVE SUITE 203
QUINCY, MA 02169

Mailing

2300 CROWN COLONY DRIVE SUITE 203
QUINCY, MA 02169

Clerk/Registered Agent

Physical

JEFFREY HOWES
110 COMMUNITY DRIVE
AUGUSTA, ME 04330

Mailing

JEFFREY HOWES
110 COMMUNITY DRIVE
AUGUSTA, ME 04330

New Search

Click on a link to obtain additional information.

List of Filings

[View list of filings](#)

Obtain additional information:



CITY OF BANGOR

Planning Division

Checklist for Land Development Applications

Pre-application Meeting Date N/A

Date submitted 05/31/2024

Date Reviewed 06//2024

Initials BS

Project: 327 Odlin Road - Giri Hotel Management

Project Location: 327 Odlin Road

Applicant Giri Hotel Management

Applicant Representative: Jon Ketchern

Phone Number or Email: 207-290-2478

Project Zoning District: GC&S

Allowed Use: Hotel

Conditional Use: N/A

Site Plan Requirement Reference § 165-111 (3)(4)(5)

Project Disturbs More than One Acre? Yes___ No_X

If Yes, Applicant aware of MCGP and Chapter 500 Permitting through Maine DEP?

Yes___ Informed by City Staff___

Yes	No	Not applicable / Other	Site Plan Element
X			Scale
X			North Arrow
X			Building/Lot dimensions
X			Building locations/uses



CITY OF BANGOR

Planning Division

Checklist for Land Development Applications

Yes	No	Not applicable / Other	Site Plan Element
X			Parking/access/loading locations
	X		Signage
	X		Lighting
	X		Screening and Buffer
X			Erosion and sedimentation
X			Stormwater
X			Manholes/catch basins
X			Sewer
X			Water
X			Fire service (e.g. sprinkler line, hydrants, fire pond)
X			Electric/Communication
X			Curbs and gutters
X			Paved/un-vegetated/vegetated areas
X			Trash
X			Outdoor display/storage
X			Existing trees
X			Deed or other instrument allowing pursuit of permits
X			Topo
X			Adjacent buildings and features
		X	Traffic
X			Location sketch
X			Post Construction Stormwater Maintenance Plan
		X	Fire Comments
		X	Shoreland delineation/zoning compliance
		X	Floodplain location
		X	Effects on scenic, etc
X			Table showing compliance with dimensional Requirements
X			Table showing compliance with Parking Requirements
		X	Additional Conditional Use General Requirements Traffic Study Support Letter for paragraph (4)



CITY OF BANGOR

Planning Division

Checklist for Land Development Applications

Yes	No	Not applicable / Other	Site Plan Element
		X	Additional Conditional Use Specific Requirements for Use or District
		X	Additional Subdivision Requirements Lot lines Existing street connections Open space reservation Abutters Onsite wastewater Easements Soils Wetlands
		X	Additional Solar applications Height Yard Buffers Glare Decommissioning plan Utility Connections Confirmation of use
		X	Proposed temporary construction access roads
		X	Proposed bus stop location

Applicant is proposing to construct a patio and sidewalk adjacent to the building. For parking the applicant proposes to regrade parking lot and install landscaping and curbed parking islands. Stormwater installations include installing field drains and stone aprons.

Comments on Completeness and Compliance

What is purpose for large amount of pavement on the north side of the parking area? Is this for truck deliveries? If not, it would be preferable to reduce the width there (24' being the minimum).



CITY OF BANGOR

Planning Division

Checklist for Land Development Applications

Will the existing northwest shed be demolished?

Please ensure that accessible parking spaces are distributed to serve the various accessible entrances in accordance with [§165-72S\(2\)](#), (e.g. may need to distribute to serve the proposed patio).

As a parking lot with 50 or more spaces (between Phase 1 and Phase 2), the parking area would typically require interior landscaping of at least 10 shade trees and 40 shrubs for the entire 100 parking spaces (§ 165-74(D)). However, since Phase 1 has already been constructed, this number can be split in half, so Phase 2 would need 5 shade trees and 20 shrubs for the parking lot green space. Please see [§165-74\(D\)](#) for stipulations on how these plantings should be distributed.

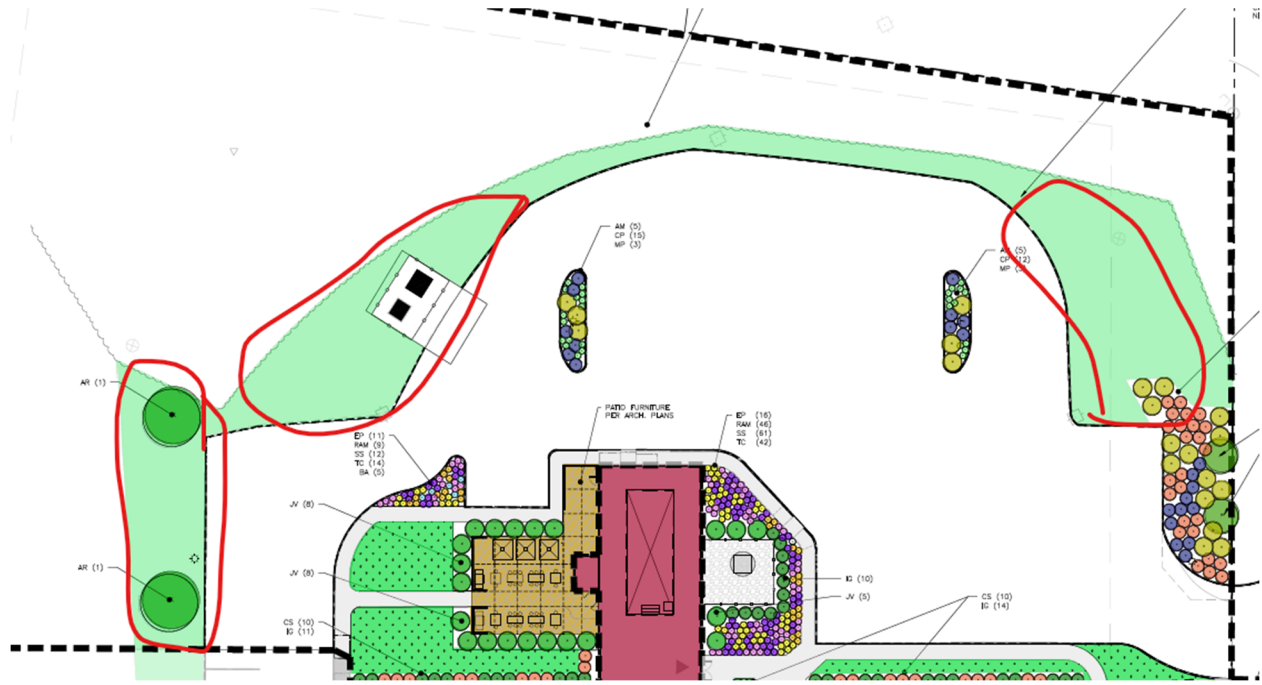
For the plantings in the front yard setback, shrubs shouldn't be used here due to sight line issues; will need to use lower profile plants (except for the large trees - these go towards meeting the E-buffer requirement here). The shrubs can be moved to the open space areas to the north and west (see below) to meet compliance with [§165-114\(F-4\)](#) and where needed to meet compliance with the parking lot landscaping standards above. For the E-buffer along the front yard setback, please ensure there are 4 trees planted per 100 feet of width.



CITY OF BANGOR

Planning Division

Checklist for Land Development Applications



General Note 5 in Landscaping states that existing spruce trees will be removed to be in compliance; please indicate on the plans where these are.

Please revise the plan's parking setback table to show that the street line setback is 20ft and that the side and rear lot line minimums are each 5ft.

Please revise the plan's structure setback table that the rear line requires 25ft and that the maximum building height is 40ft (as a permitted use in the GC&S district).

The plans include signage standards - is any new signage proposed? If so, please show location.

Is there a proposed loading zone? A loading space is required for hotels between 3,000 and 50,000 square feet gross floor area. (§165-76). For a building with a gross floor area



CITY OF BANGOR

Planning Division

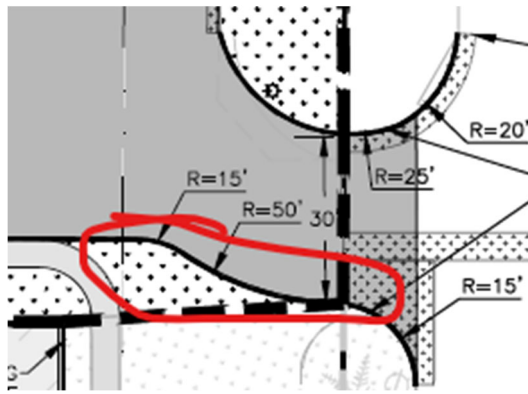
Checklist for Land Development Applications

of over 10,000, that loading space would need to be 50ft by 10ft with a 10ft clearance (§165-77)

Will the current fire lane markings be preserved after the proposed development?

The lighting plan shows light trespass onto Odlin Road; please ensure that lighting is situated to comply with §165-81(C-2). Additionally, please submit lighting specifications showing that the lighting fixtures will be full cutoff, also in accordance with §165-81(C-2).

Per §165-74(D-5) and §165-114(B)'s requirements for safe pedestrian travel, please provide a sidewalk connection to the ROW line in the area shown below.



Possible Planning Board agenda: July 2

Deadline to advertise: N/A

Deadline to post to abutters: June 20

Deadline for edits or amendments: ASAP

****For edits, please only send digital copies until staff has determined the plans are okay to go to Planning Board. Once staff has made that determination, hard copies of the final plans can be sent.**

Re: 327 Odlin Road - Plans Review

Craig, George <george.craig@bangormaine.gov>

Fri 6/14/2024 12:32 PM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Hi Brian, Adam is out this afternoon and I'm not going to be able to attend the zoom, but I looked over the plans and it looks good for our portion. Thank you,

George



CITY OF BANGOR

George Craig

Fire Inspector, CFI-1

Fire Prevention Division

Phone: 207-992-4264

Cell: 207-735-4041

Fax: 207-945-4449

<http://www.bangormaine.gov>

From: Scannell, Brian

Sent: Monday, June 10, 2024 2:40 PM

To: Scannell, Brian <brian.scannell@bangormaine.gov>; Collette, Anja <anja.collette@bangormaine.gov>; Theriault, John <john.theriault@bangormaine.gov>; Davis, Jefferson <jefferson.davis@bangormaine.gov>; Holmquist, Jim <jim.holmquist@bangormaine.gov>; May, Richard <richard.may@bangormaine.gov>; Wallace, Jeff <jeff.wallace@bangormaine.gov>; Craig, George <george.craig@bangormaine.gov>; Vachon, Adam <adam.vachon@bangormaine.gov>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Matthew Murray <matthew.murray@bangorwater.org>; Smith, Amanda <amanda.smith@bangormaine.gov>; Hanscom Bilotta, Brenda <Brenda.hanscombilotta@bangormaine.gov>

Subject: 327 Odlin Road - Plans Review

When: Friday, June 14, 2024 2:00 PM-3:00 PM.

Where: Zoom

City of Bangor Planning Department is inviting you to a scheduled Zoom meeting.

Topic: 327 Odlin Road - Giri Hotel

Time: Jun 17, 2024 10:15 AM Eastern Time (US and Canada)

Join Zoom Meeting

[https://us06web.zoom.us/j/4132710245?
pwd=R2JyK3dOUW1Pa1lmaHdWN042QjhSUT09&omn=89461187837](https://us06web.zoom.us/j/4132710245?pwd=R2JyK3dOUW1Pa1lmaHdWN042QjhSUT09&omn=89461187837)

Meeting ID: 413 271 0245
Passcode: yZV42j

One tap mobile
+13052241968,,4132710245#,,,,*952233# US
+13092053325,,4132710245#,,,,*952233# US

Dial by your location

- +1 305 224 1968 US
- +1 309 205 3325 US
- +1 312 626 6799 US (Chicago)
- +1 646 931 3860 US
- +1 929 205 6099 US (New York)
- +1 301 715 8592 US (Washington DC)
- +1 669 444 9171 US
- +1 669 900 6833 US (San Jose)
- +1 689 278 1000 US
- +1 719 359 4580 US
- +1 253 205 0468 US
- +1 253 215 8782 US (Tacoma)
- +1 346 248 7799 US (Houston)
- +1 360 209 5623 US
- +1 386 347 5053 US
- +1 507 473 4847 US
- +1 564 217 2000 US

Meeting ID: 413 271 0245
Passcode: 952233

Find your local number: <https://us06web.zoom.us/j/4132710245?pwd=R2JyK3dOUW1Pa1lmaHdWN042QjhSUT09&omn=89461187837>



A C O R N

ENGINEERING, INC.

Brian Scannell – Planning Analyst
Planning Division – City of Bangor, Maine
242 Harlow Street
Bangor, ME 04401

June 19th, 2024

Subject: Comment Response Narrative
Redevelopment of 327 Odlin Road - Bangor, Maine

Mr. Scannell:

On behalf of Giri Hotel Management, we are pleased to respond to the following comments from the Bangor Planning Division's review of the initial Land Development Application submitted May 31st, 2024. The following is in response to the City Staff comments received June 13th, 2024.

City Staff comments have been provided in *italics*, with Acorn's responses in standard font.

Comment 1: *What is purpose for large amount of pavement on the north side of the parking area? Is this for truck deliveries? If not, it would be preferable to reduce the width there (24' being the minimum).*

Response: This portion of the parking area is necessary for circulation and movement of semi trucks about the site and follows the existing edge of pavement. In general, the proposed edge of pavement is following the existing edge to limit additional disturbance and impacts to the surrounding buffer. Additionally, this portion of the parking area accommodates occasional parking for semi truck drivers who patronize the hotel.

Comment 2: *Will the existing northwest shed be demolished?*

Response: The shed as shown in the original 2005 survey by Plisga & Day has since been demolished.

Comment 3: *Please ensure that accessible parking spaces are distributed to serve the various accessible entrances in accordance with §165-72S(2), (e.g. may need to distribute to serve the proposed patio).*

Response: To meet the requirement for distribution of accessible parking about the site, one (1) van accessible parking space, a landing space, and a sidewalk ramp have been provided at the proposed patio. Accessible parking space count will remain the same (qty. 4) at the front of the building. A total of five (5) accessible parking spaces will be provided of the 99 total spaces on site, exceeding the four (4) space requirement for 76 to 100 spaces.

Comment 4: *As a parking lot with 50 or more spaces (between Phase 1 and Phase 2), the parking*

area would typically require interior landscaping of at least 10 shade trees and 40 shrubs for the entire 100 parking spaces (§ 165-74(D)). However, since Phase 1 has already been constructed, this number can be split in half, so Phase 2 would need 5 shade trees and 20 shrubs for the parking lot green space. Please see §165-74(D) for stipulations on how these plantings should be distributed.

Response: Please see revisions to Sheet L-1, which provides a total of six (6) shade trees and twenty-one (21) shrubs within the curbed islands and landscaped peninsula adjacent the proposed accessible spaces. Note that a third curbed island has been added to the site layout to better define parking and to accommodate the required plantings.

Comment 5: *For the plantings in the front yard setback, shrubs shouldn't be used here due to sight line issues; will need to use lower profile plants (except for the large trees – these go towards meeting the E-buffer requirement here). The shrubs can be moved to the open space areas to the north and west (see below) to meet compliance with §165-114(F-4) and where needed to meet compliance with the parking lot landscaping standards above. For the E-buffer along the front yard setback, please ensure there are 4 trees planted per 100 feet of width.*

Response: Please see revisions to Sheet L-1, which provides three (3) shade trees along the ~70-foot unbuffered area along Odlin Road to meet the E-buffer requirement. As suggested, shrubs within the front yard setback have been moved about the site to satisfy open space planting requirements of §165-114(F-4). Note that the Applicant wishes to maintain the west portion of the parking area as a snow storage area.

Comment 6: *General Note 5 in Landscaping states that existing spruce trees will be removed to be in compliance; please indicate on the plans where these are.*

Response: Thank you for noting this. At the time of this site's prior submission (2018), two (2) spruce trees existed within the site's E-buffer area along Odlin Rd. These trees have since been removed. General Note 5 has been removed from the revised Sheet L-1.

Comment 7: *Please revise the plan's parking setback table to show that the street line setback is 20ft and that the side and rear lot line minimums are each 5ft.*

Response: The requested table revisions have been made to Sheet C-10.

Comment 8: *Please revise the plan's structure setback table that the rear line requires 25ft and that the maximum building height is 40ft (as a permitted use in the GC&S district).*

Response: The requested table revisions have been made to Sheet C-10.

Comment 9: *The plans include signage standards - is any new signage proposed? If so, please show location.*

Response: The only proposed signage is at the accessible parking spaces. General Note 2 on Sheet C-10, pertinent to the prior submission, has been removed.

Comment 10: *Is there a proposed loading zone? A loading space is required for hotels between 3,000 and 50,000 square feet gross floor area. (§165-76). For a building with a gross floor area of over*



10,000, that loading space would need to be 50ft by 10ft with a 10ft clearance (§165-77)

Response: Please see revised Sheet C-10 for the proposed loading zone location. This area is currently being used as the informal loading zone for the site. Note that five (5) employee parking spaces, to be controlled by Home2 management, will be provided adjacent to the proposed loading zone.

Comment 11: Will the current fire lane markings be preserved after the proposed development?

Response: Please see revised Sheet C-10 for fire lane markings to be installed along the proposed sidewalk.

Comment 12: The lighting plan shows light trespass onto Odlin Road; please ensure that lighting is situated to comply with §165-81(C-2). Additionally, please submit lighting specifications showing that the lighting fixtures will be full cutoff, also in accordance with §165-81(C-2).

Response: Please see the resubmitted photometric plan and lighting and light shielding specifications. Light trespass onto Odlin Road from the proposed Phase II scope of work has been minimized through light orientation and shielding. Note that this plan portrays modeled assumptions of photometrics within the Phase I portion of the site. True conditions in these areas have not been field-confirmed and are outside the current scope of work.

Comment 13: Per §165-74(D-5) and §165-114(B)'s requirements for safe pedestrian travel, please provide a sidewalk connection to the ROW line in the area shown below.


Response: Please see revised Sheet C-10, which includes a proposed sidewalk spur to be constructed to the City ROW.

Thank you for your review. Please let us know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Finn A. Bondeson, P.E.
Project Engineer
Acorn Engineering, Inc.

RE: 327 Odlin Rd - Giri Hotel Management

Matthew Murray <matthew.murray@bangorwater.org>

Thu 6/20/2024 3:30 PM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Brian,

Looks good, they will just need enough space between the new fire and existing domestic to have at least 6' of separation between the thrust blocks on the bends for the fire service and the domestic line.

Matthew Murray

Engineering Assistant

Bangor Water District

Tel 207-947-4516 ext.502

Cell 207-944-2091

PO Box 1129

Bangor, ME 04402

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Thursday, June 20, 2024 2:48 PM

To: Matthew Murray <matthew.murray@bangorwater.org>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: 327 Odlin Rd - Giri Hotel Management

Hello,

I have attached the revisions for the 327 Odlin Rd - Giri Hotel Management Application through nextcloud.

In particular, the utility plan is drawing C-20 (Page 7).

Let us know.

Thanks,



Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

Here's the link

<https://nextcloud.bangormaine.gov/nextcloud/s/tWx3cX4T3RgLnkR>

Re: 327 Odlin Rd - Giri Hotel Management

Wallace, Jeff <jeff.wallace@bangormaine.gov>

Mon 6/24/2024 8:26 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

I am good with this. Thank you.



CITY OF BANGOR

Jeff Wallace

Director of Code Enforcement

jeff.wallace@bangormaine.gov

Phone: 207-992-4228

<http://www.bangormaine.gov>



From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 8:24 AM

To: Wallace, Jeff <jeff.wallace@bangormaine.gov>; Hanscom Bilotta, Brenda <Brenda.hanscombilotta@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Re: 327 Odlin Rd - Giri Hotel Management

Let us know about this when you have a chance!

From: Scannell, Brian

Sent: Thursday, June 20, 2024 2:45 PM

To: Wallace, Jeff <jeff.wallace@bangormaine.gov>; Hanscom Bilotta, Brenda <Brenda.hanscombilotta@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: 327 Odlin Rd - Giri Hotel Management

Hello,

I have attached the revisions for the 327 Odlin Rd - Giri Hotel Management Application through nextcloud.

Let us know.

Thanks,



CITY OF BANGOR

Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

Here's the link

<https://nextcloud.bangormaine.gov/nextcloud/s/tWx3cX4T3RgLnkR>

Re: 327 Odlin Rd - Giri Hotel Management Revisions

Holmquist, Jim <jim.holmquist@bangormaine.gov>

Mon 6/24/2024 9:20 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>; Theriault, John <john.theriault@bangormaine.gov>; Davis, Jefferson <jefferson.davis@bangormaine.gov>; May, Richard <richard.may@bangormaine.gov>
Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Hi Brian,

I have no comments on this one.

--Jim Holmquist

Designer (CE1)

Engineering Department

City of Bangor, Maine

207-992-4279

73 Harlow Street

Bangor, Maine 04401

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 8:25 AM

To: Theriault, John <john.theriault@bangormaine.gov>; Davis, Jefferson <jefferson.davis@bangormaine.gov>; May, Richard <richard.may@bangormaine.gov>; Holmquist, Jim <jim.holmquist@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Re: 327 Odlin Rd - Giri Hotel Management Revisions

Let us know about this when you have a chance!

From: Scannell, Brian

Sent: Thursday, June 20, 2024 2:44 PM

To: Theriault, John <john.theriault@bangormaine.gov>; Davis, Jefferson <jefferson.davis@bangormaine.gov>; May, Richard <richard.may@bangormaine.gov>; Holmquist, Jim <jim.holmquist@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: 327 Odlin Rd - Giri Hotel Management Revisions

Hello,

I have attached the revisions for the 327 Odlin Rd - Giri Hotel Management Application through nextcloud.

In particular, the applicant responded to your comments on parking, landscaping, and lighting.

Let us know.

Thanks,



CITY OF BANGOR

Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

Here's the link

<https://nextcloud.bangormaine.gov/nextcloud/s/tWx3cX4T3RgLnkR>



327 Odlin Rd - Giri Hotel

Nextcloud - Secure File Sharing System for the City of Bangor

nextcloud.bangormaine.gov

Re: 327 Odlin Road - Giri Hotel Management - Stormwater Comments

May, Richard <richard.may@bangormaine.gov>

Tue 6/25/2024 7:37 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

I have no comments on this.

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 3:53 PM

To: May, Richard <richard.may@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: 327 Odlin Road - Giri Hotel Management - Stormwater Comments

Hello!

I've attached the most recent site plan for 327 Odlin Road - Giri Hotel Management.

Let us know if you have any remaining comments or questions.

Thanks,



CITY OF BANGOR

Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

RE: 327 Odlin Rd - Giri Hotel Management

Matthew Murray <matthew.murray@bangorwater.org>

Tue 6/25/2024 7:28 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Looks great, thank you!

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 3:55 PM

To: Matthew Murray <matthew.murray@bangorwater.org>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Re: 327 Odlin Rd - Giri Hotel Management

Hello,

These are the revised site plans based on your comments!

Let us know.

Thanks,



Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

From: Matthew Murray <matthew.murray@bangorwater.org>

Sent: Thursday, June 20, 2024 3:30 PM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: RE: 327 Odlin Rd - Giri Hotel Management

Brian,

Looks good, they will just need enough space between the new fire and existing domestic to have at least 6' of separation between the thrust blocks on the bends for the fire service and the domestic line.

Matthew Murray

Engineering Assistant

Bangor Water District

Tel 207-947-4516 ext.502

Cell 207-944-2091

PO Box 1129

Bangor, ME 04402

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Thursday, June 20, 2024 2:48 PM

To: Matthew Murray <matthew.murray@bangorwater.org>

Cc: Collette, Anja <anja.collette@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: 327 Odlin Rd - Giri Hotel Management

Hello,

I have attached the revisions for the 327 Odlin Rd - Giri Hotel Management Application through nextcloud.

In particular, the utility plan is drawing C-20 (Page 7).

Let us know.

Thanks,



Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

Here's the link

<https://nextcloud.bangormaine.gov/nextcloud/s/tWx3cX4T3RgLnkR>



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

PUBLIC NOTICE

Date: June 25, 2024

Dear Property Owner:

Please be advised that the Planning Board of the City of Bangor will hold a public hearing on Tuesday, July 2, 2024, beginning at 7:00 p.m. in the Lower Floor of Penquis CAP (262 Harlow Street) and will consider the following application:

Land Development Permit Application – Major Site Development for renovation of existing parking and landscaped area, at property located on 327 Odlin Road, Map-Lot R18-009, in the General Commercial & Service District (GC & S). Applicant/Owner: Giri Hotel Management.

A full copy of the application can be emailed or mailed to any interested party by emailing a request to planning@bangormaine.gov or calling the office at 207.992.4257. Copies of the application can also be picked up at City Hall. To submit comments in writing, please email comments to planning@bangormaine.gov or mail to 73 Harlow Street before 4 PM, July 1st, 2024. Interested parties can also make an appointment by email or phone to meet with Planning Department staff in person or on Zoom.

The public is welcome to attend the meeting in person or by Zoom. Zoom details can be found at the city's website under www.bangormaine.gov/calendar. The Planning Board meeting may be streamed live via the City of Bangor's YouTube page; however, comments are not enabled during streaming. Please call our office if you have questions about the process or participation in the hearing process.

Anja Collette
Planning Officer
City of Bangor

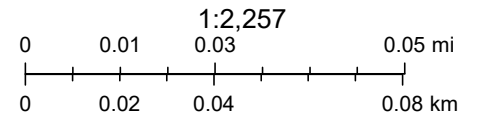
Site Map for 327 Odlin Road



6/25/2024, 10:25:10 AM

Parcels

Generated by City Staff on 06.25.2024



100 FEET ABUTTERS OF 327 ODLIN ROAD

Owner	Owner 2	Owner Address 1	Owner Address 2
BANGOR GRANDE DRESSER, LLC	BANGOR GRANDE SHANOS, LLC	PO BOX 2523	BANGOR ME 04402-2523
MJH BGR-LLC		P.O. BOX 500	BELGRADE ME 04917
MJH-BGR LLC		PO BOX 500	BELGRADE ME 04917 0500
COBALT PROPERTIES LLC		PO BOX 868 C/O IRVING OIL LIMITED ATTN: CORPORATE R	CALAIS ME 04619
GIRI BANGOR ODLIN, LLC		2300 CROWN COLONY DRIVE SUITE 203	QUINCY MA 02169
FIELDER'S CHOICE BANGOR, LLC		129 LAKESHORE DRIVE	LEEDS ME 04263
EXTREME AUTO, LLC		772 HAMPDEN ROAD	CARMEL ME 04419
OM HOSPITALITY, INC		336 ODLIN ROAD	BANGOR ME 04401
FBN INC		BUILDING ONE, SUITE 300 1000 MARKET STREET	PORTSMOUTH NH 03801
BANGOR CITY OF		ATTN: BANGOR INTERNATIONAL AIRPORT 287 GODFREY BI	BANGOR ME 04401



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

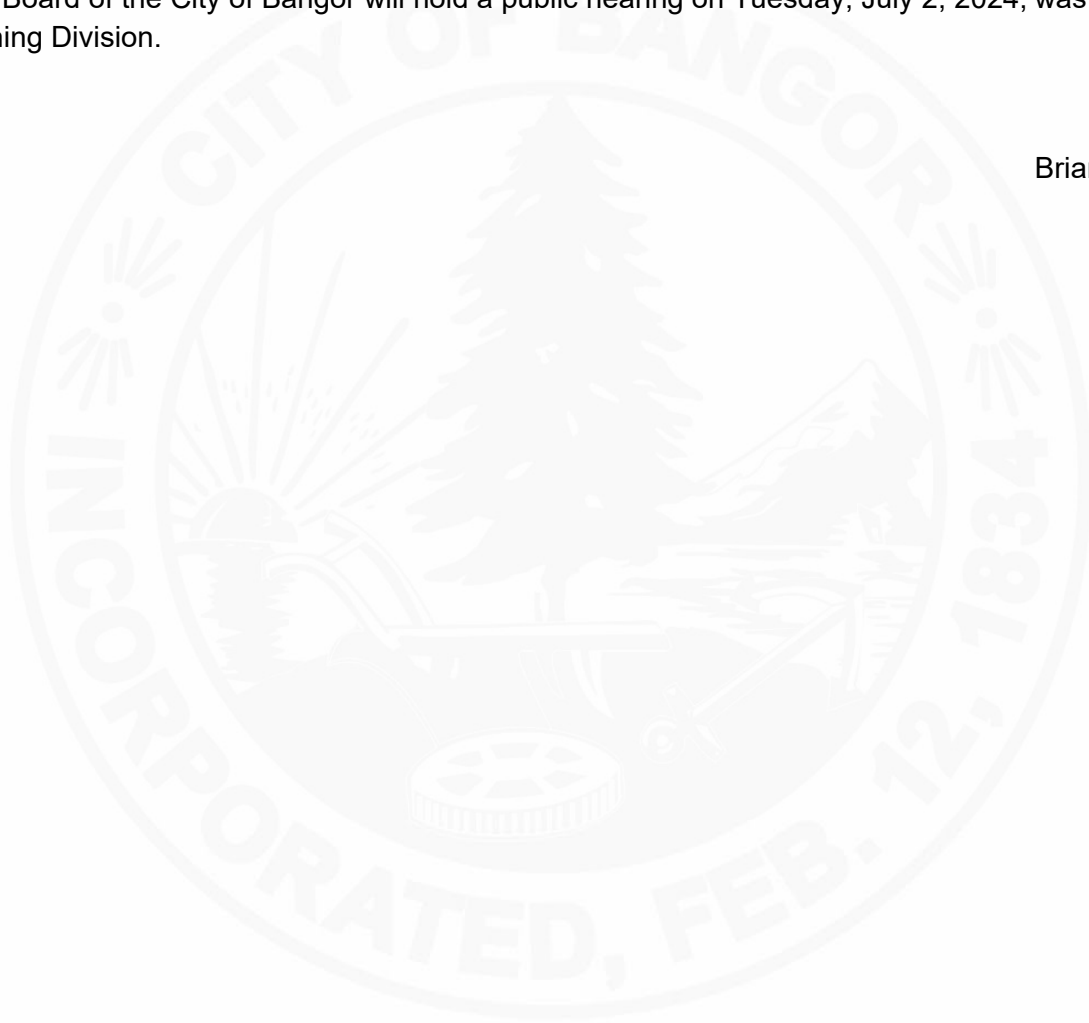
PLANNING DIVISION

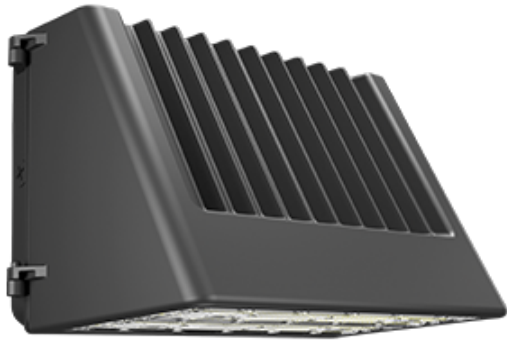
June 25, 2024

Re: 327 Odlin Road - Giri Hotel Management

On June 25, 2024, the Public Notice 327 Odlin Road – Giri Hotel Management, advising that the Planning Board of the City of Bangor will hold a public hearing on Tuesday, July 2, 2024, was mailed by the Planning Division.

Brian Scannell





Color: Bronze

Weight: 10.6 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.00A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	102/102.8/101W

LED Info

Watts	100W
Color Temp	3000K/4000K/5000K
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	12833/14984/13166 lm
Efficacy	125.8/145.8/130.4 lm/W

Technical Specifications

Field Adjustability

Field Adjustable:

Color temperature selectable by 3000K, 4000K and 5000K

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLUXLTH1OKVW

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Electrical

Driver:

Constant Current, Class 1, 120-277V, 50/60 Hz, 120V: 1.00A, 208V: 0.60A, 240V: 0.50A, 277V: 0.40A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

Photocell:

120-277V selectable photocell that can be turned on and off.

Surge Protection:

L-N:6KV,L-PE:6KV,N-PE:6KV

Construction

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature :

Max Power Temp Rating: 50°C (122°F)
Middle Power Temp Rating: 50°C (122°F)
Low Power Temp Rating: 50°C (122°F)

Housing:

Precision die-cast aluminum housing and door frame

Lens:

Polycarbonate lens

Mounting:

Hinged wiring access and conduit entries on the back, sides, top and bottom make installation a snap

Cut Off:

Full cutoff (0°)

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Note:

All values are typical (tolerance +/- 10%)

Technical Specifications (continued)

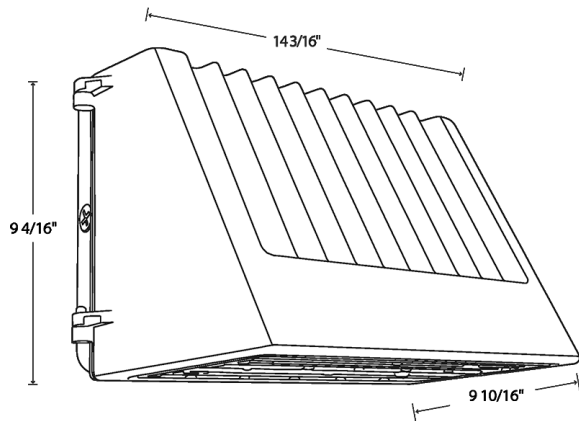
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Selectable CCT
- Full cutoff
- Selectable on/off photocell
- 0-10V dimming, standard

Ordering Matrix

Family	Style	Wattage	Color Temp	Finish	Voltage	Options
SLIM17FA	FC	100				
	FC = Full cutoff	40 = 40W 60 = 60W 100 = 100W 120 = 120W 150 = 150W	Blank = 3000K/4000K/5000K CCT Adjustable	Blank = Bronze	Blank = 120-277V	Blank = Selectable On/Off Photocell /MVS = Selectable On/Off Photocell w/ Microwave Occupancy Sensor



Color: Bronze

Weight: 16.5 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.25A
208V	0.73A
240V	0.63A
277V	0.55A
Input Watts	76/91.6/148.2W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	85 CRI
L70 Lifespan	100,000 Hours
Lumens	10603/12617/19192 lm
Efficacy	139.5/137.7/129.5 lm/W

Technical Specifications

Field Adjustability

Field Adjustable (Wattage):

Field adjustable light output in 3 discrete steps:
Medium Housing: 150W/90W/78W (factory default 150W)

Compliance

UL Listed:

Suitable for wet locations

IP Rating:

Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: S-53X76G

LED Characteristics

LEDs:

Long-life, high-efficiency, discrete, surface-mount LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

78W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.65A, 208V: 0.38A, 240V: 0.33A, 277V: 0.29A

90W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.75A, 208V: 0.44A, 240V: 0.38A, 277V: 0.33A

150W: Constant Current, Non-Class 2, 120-277V, 50/60 Hz, 120V: 1.25A, 208V: 0.73A, 240V: 0.63A, 277V: 0.55A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.59% at 120V, 8% at 277V

Power Factor:

100% at 120V, 95.7% at 277V

Surge Protection:

Line to Line: 10kV
Line to Ground: 6kV

Technical Specifications (continued)

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

Construction

IES Classification:

The Type III distribution is meant to be located near the side of an area, projecting the light outward to fill the area. Ideal for roadways, general parking areas, lighting applications and where a large pool of light is required.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Housing:

Die-cast aluminum

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Lens:

Polycarbonate lens

Reflector:

Aluminum reflector with white polycarbonate

Vibration Rating:

3G vibration rating per ANSI C136.31

Effective Projected Area:

EPA = 0.34

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

Bug Rating:

BUG Rating 150W: B2 U0 G3

BUG Rating 90W: B1 U0 G2

BUG Rating 78W: B1 U0 G2

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

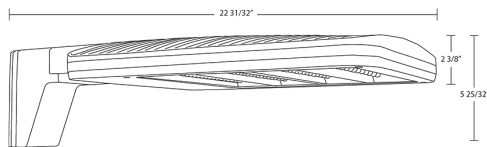
Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

0-10V dimmable standard

IP66 Rated

100,000-Hour LED lifespan

10-Year, No-Compromise Warranty

Ordering Matrix

Family	Housing Size	Distribution	Mounting	Color Temp	Finish	Voltage	Options
ALED	M	3T					
	S = Small (80W/60W/40W) M = Medium (150W/90W/78W) L = Large (260W/220W/170W) XL = Extra Large (385W/345W/300W)	2T = Type II 3T = Type III 4T = Type IV 5T = Type V AT = Auto Dealership Optic	Blank = Universal Pole Mount SF = Slipfitter WM = Wall Mount	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Bronze W = White B = Black	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming ¹	Blank = No Option /7PR = 7 Pin Twistlock Receptacle /WS2 = Wattstopper, 20ft lens /WS4 = Wattstopper, 40ft lens ²

¹ 480V available in Medium, Large & Extra Large fixtures only

² Wattstopper option available in Large & Extra Large fixtures only



Color: Bronze

Weight: 16.5 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.25A
208V	0.73A
240V	0.63A
277V	0.55A
Input Watts	75.2/90.6/146.6W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	85 CRI
L70 Lifespan	100,000 Hours
Lumens	10610/12625/19204 lm
Efficacy	141.1/139.3/131 lm/W

Technical Specifications

Field Adjustability

Field Adjustable (Wattage):

Field adjustable light output in 3 discrete steps:
Medium Housing: 150W/90W/78W (factory default 150W)

Compliance

UL Listed:

Suitable for wet locations

IP Rating:

Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: S-AH0R16

LED Characteristics

LEDs:

Long-life, high-efficacy, discrete, surface-mount LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

78W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.65A, 208V: 0.38A, 240V: 0.33A, 277V: 0.29A

90W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.75A, 208V: 0.44A, 240V: 0.38A, 277V: 0.33A

150W: Constant Current, Non-Class 2, 120-277V, 50/60 Hz, 120V: 1.25A, 208V: 0.73A, 240V: 0.63A, 277V: 0.55A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.67% at 120V, 8.03% at 277V

Power Factor:

100% at 120V, 95.7% at 277V

Surge Protection:

Line to Line: 10kV
Line to Ground: 6kV

Technical Specifications (continued)

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

Construction

IES Classification:

The Type IV distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Housing:

Die-cast aluminum

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Lens:

Polycarbonate lens

Reflector:

Aluminum reflector with white polycarbonate

Vibration Rating:

3G vibration rating per ANSI C136.31

Effective Projected Area:

EPA = 0.34

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

Bug Rating:

BUG Rating 150W: B2 U0 G4

BUG Rating 90W: B1 U0 G3

BUG Rating 78W: B1 U0 G3

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

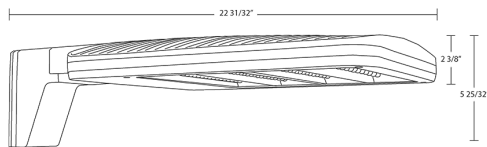
Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

0-10V dimmable standard

IP66 Rated

100,000-Hour LED lifespan

10-Year, No-Compromise Warranty

Ordering Matrix

Family	Housing Size	Distribution	Mounting	Color Temp	Finish	Voltage	Options
ALED	M	4T					
	S = Small (80W/60W/40W) M = Medium (150W/90W/78W) L = Large (260W/220W/170W) XL = Extra Large (385W/345W/300W)	2T = Type II 3T = Type III 4T = Type IV 5T = Type V AT = Auto Dealership Optic	Blank = Universal Pole Mount SF = Slipfitter WM = Wall Mount	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Bronze W = White B = Black	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming ¹	Blank = No Option /7PR = 7 Pin Twistlock Receptacle /WS2 = Wattstopper, 20ft lens /WS4 = Wattstopper, 40ft lens ²

¹ 480V available in Medium, Large & Extra Large fixtures only
² Wattstopper option available in Large & Extra Large fixtures only



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 136.7 lbs

Project:	Type:
Prepared By:	Date:

Technical Specifications

Compliance

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

20 ft

Weight:

137 lbs

Gauge:

11

Wall Thickness:

1/8"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available [online](#).

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

Max EPA's/Max Weights:

- 70MPH 10.7 ft/360 lb.
- 80MPH 7.0 ft/350 lb.
- 90MPH 4.3 ft/350 lb.
- 100MPH 2.5 ft/350 lb.
- 110MPH 1.1 ft/350 lb.
- 120MPH 0.1 ft/340lb

Other

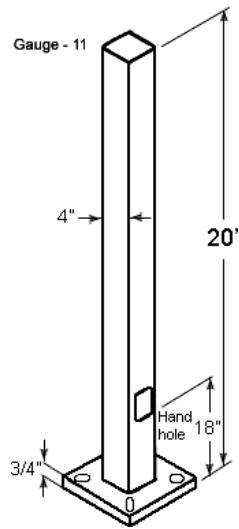
Terms of Sale:

Pole Terms of Sale is available [online](#).

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Pole caps, base covers & bolts are sold separately
- Custom manufactured for each application



Color: Bronze

Weight: 1.2 lbs

Project:

Type:

Prepared By:

Date:

Technical Specifications

Performance

Description:

ALED house side shield with 4 screws

Compatible Products:

ALED Medium Field Adjustable

Construction

Dimensions (LxWxH):

12 3/16" x 12 14" x 6"

Finish:

Formulated for high durability and long-lasting color

Other

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Re: Home2 - Phased Construction

Vachon, Adam <adam.vachon@bangormaine.gov>

Thu 6/27/2024 1:38 PM

To: Collette, Anja <anja.collette@bangormaine.gov>; Craig, George <george.craig@bangormaine.gov>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Hello Anja and Brian, this would actually be up to the water department. They don't normally allow a fire service to be on a shared line due to potential water quality issues. My guess is looking at the plans from 3/2020, they showed this line going in with phase 2 and that's probably why the WD allowed it to stay due to it being temporary. I do know that the previous sprinkler system was also significantly smaller, so it may need to be on its own line to be correct. We just require that the piping is an approved material and that its sized to accommodate supply needs.

Thank you!

Adam



CITY OF BANGOR

Adam Vachon

Fire Inspector, CFI-1

Fire Prevention Division

Phone: 207-992-4180

Cell: 207-735-6468

Fax: 207-945-4449

<http://www.bangormaine.gov>

adam.vachon@bangormaine.gov

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Thursday, June 27, 2024 10:57 AM

To: Craig, George <george.craig@bangormaine.gov>; Vachon, Adam <adam.vachon@bangormaine.gov>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Fw: Home2 - Phased Construction

Hello, sorry to rush on this, but this project was supposed to be on next Tuesday's Planning Board agenda. If you don't think you'll be able to review this change today or tomorrow, could you let us know as soon as possible so we can ask the Board to postpone review to the 16th?

Thank you!



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Thursday, June 27, 2024 10:45 AM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Fw: Home2 - Phased Construction

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Thursday, June 27, 2024 10:44 AM

To: Craig, George <george.craig@bangormaine.gov>; Vachon, Adam <adam.vachon@bangormaine.gov>

Subject: Fw: Home2 - Phased Construction

Hello,

This is the 327 Odlin Road - Giri Hotel Management application.

What are your thoughts on the forwarded email from the applicant?

I've attached our most recent plans from them.

Thanks,



CITY OF BANGOR

Brian Scannell

Planning Analyst

Planning Division - Community & Economic Development

Phone: 207.992.4299

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Thursday, June 27, 2024 10:40 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Good morning Brian,

We have been coordinating with project ownership regarding the 6" fire service proposed on our plans, which was inadvertently carried over from prior design. We are proposing to remove the separate fire service from Sheet C-20 and retain the existing shared condition (6" from Odlin).

All mechanical/plumbing renovations within the building were completed in 2021 during "Phase 1" of site work, and the fire suppression system which comes off the shared line has passed opening and annual inspections/testing. See attached for the opening and most recent (2024 annual) inspection certificates.

Please circulate with the appropriate parties and advise if retaining the existing condition at Home2 is acceptable.

If all is well and we retain our position on next Tuesday's PB agenda, may we bring the hard copy with us at that time, or will you need it mailed or otherwise delivered by a certain time prior to the meeting?

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Tuesday, June 25, 2024 11:50 AM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Hello,

I'm reaching out to let you know that you are all set for the July 2 Planning Board meeting!

Could you please send over a hard copy of the final plans?

Thanks,



CITY OF BANGOR

Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 3:49 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Thank you; we'll give this a look over!



CITY OF BANGOR

Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Monday, June 24, 2024 3:42 PM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Thank you Brian,

Please see the attached revision to sheet C-20, showing an 8-foot horizontal separation between the proposed fire service and existing domestic service.

Thank you!

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Scannell, Brian <brian.scannell@bangormaine.gov>

Sent: Monday, June 24, 2024 9:30 AM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Hello!

We ran the revisions by the relevant departments, and they had this comment.

- Please make sure and note on the plans that there is enough space between the new fire and existing domestic to have at least 6' of separation between the thrust blocks on the bends for the

fire service and the domestic line.

Let us know if you have any questions!

Thanks,



Brian Scannell
Planning Analyst
Planning Division - Community & Economic Development
Phone: 207.992.4299

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Thursday, June 20, 2024 8:54 AM

To: Scannell, Brian <brian.scannell@bangormaine.gov>

Cc: Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>; Collette, Anja <anja.collette@bangormaine.gov>; William Savage <wsavage@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Good morning Brian,

Thank you for last week's review of proposed improvements at the Home2 at 327 Odlin Road. Please see the attached comment response letter, plan set, photometric plans, and lighting cut sheets, which have been updated in response to your comments.

Please feel free to reach out if you have additional questions. If these materials are ready for Planning Board review, please advise of if we will have a spot on the July 2nd agenda. When we are placed on an agenda, I'd like to follow up with a few questions about meeting procedure and presentation materials.

Have a great day and stay cool!

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Wednesday, June 12, 2024 1:06 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Hello, yes, we received them. We're currently still reviewing them, but we hope to have comments to you by the end of the week.



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Wednesday, June 12, 2024 1:04 PM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>;

Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Good afternoon Anja,

Have staff been in receipt of the Home2 application packets sent last week? We are interested to know what current review timelines are looking like in Bangor.

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Wednesday, June 5, 2024 10:33 AM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>;

Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Thank you!



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Tuesday, June 4, 2024 4:52 PM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>;
Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Good afternoon all,

Two copies of these application materials were sent to City Hall earlier today and are expected to arrive on Thursday or Friday.

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Friday, May 31, 2024 3:06 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Hi, yes, our Code is a little out of date with regards to that; we only really need 2 copies. And yes, those sizes should be okay; thanks!



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Friday, May 31, 2024 3:04 PM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Thank you Anja,

Seeing this now in a review of §165-112. Can you confirm that 5 paper copies are not required per this section? Are you okay with 24"x36" for the civil plan set and 11"x17" for the architect's patio detail and photometric plan?

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Friday, May 31, 2024 12:24 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Scannell, Brian <brian.scannell@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Hello, thank you for these. However, we do also need 2 sets of hard copies submitted to our office. The mailing address is City of Bangor Planning Division, City Hall (Backside of Penquis Building), 262 Harlow

Street, Bangor, ME 04401.

Let us know if you have any questions,



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Friday, May 31, 2024 9:56 AM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Scannell, Brian <brian.scannell@bangormaine.gov>; Krieg, Anne M. <anne.krieg@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>; Jon Ketchem <jketchem@girihotels.com>

Subject: Re: Home2 - Phased Construction

Good morning Anja,

At the link below, please find our application materials for proposed property improvements at the Home2 Suites on Odlin Road.

[Home2_for submission](#)

As discussed, and as outlined in the cover letter, the current application consists of modifications to a previously approved Land Development Permit which has lapsed.

A Giri representative should be by the Planning office today to pay the processing fee.

We look forward to your review! Please reach out with any questions or requests for additional information.

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Friday, May 17, 2024 3:14 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Scannell, Brian <brian.scannell@bangormaine.gov>; Krieg, Anne M. <anne.krieg@bangormaine.gov>; Maquillan, Sarah <sarah.maquillan@bangormaine.gov>

Subject: Re: Home2 - Phased Construction

Hello, at first glance, the plans appear to be sufficient, but we will review as staff after official submittal and will let you know if any changes are needed. If the stormwater and traffic are not changing for the site, I don't anticipate needing to submit revised materials for those. Any areas that are being re-graded count towards the disturbed area. The fee for this would fall under a regular Site Development Plan; for less than 10,000sqft of disturbance, it would be \$534. I'll be leaving on vacation shortly, so I've CC'd other staff that can help you with any other questions.

Thank you!



CITY OF BANGOR

Anja Collette

Planning Officer

Community & Economic Development

Planning Division

73 Harlow Street

Bangor, ME 04401

anja.collette@bangormaine.gov

Phone: 207.992.4280

From: Finn Bondeson <fbondeson@acorn-engineering.com>

Sent: Friday, May 17, 2024 2:42 PM

To: Collette, Anja <anja.collette@bangormaine.gov>

Cc: William Savage <wsavage@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>

Subject: Re: Home2 - Phased Construction

Good afternoon Anja,

We're preparing materials to submit on behalf of Giri Hotel Management for sitework at the Home2 Suites on Odlin Rd.

Per the below communication with Will in December 2023/January 2024, we'll be submitting materials as an amendment/modification of a previously approved site plan.

I have attached the proposed plan set for your initial perusal. Note the reduced scope of work in this area of the site as compared to the original 2018 Major Site Development plan. Please let us know if the breadth of content appears adequate upon first glance. Please also advise if we'll need to resubmit any of the Major Site Development plan materials (ESC report, financial/RTI, stormwater report, and traffic report).

Our cover letter narrative will address changes between the 2018 approved submission and the current proposal.

Additionally, is the fee in the attached screenshot correct? We are proposing <10,000 SF of disturbance, maintaining extent of development within the existing parking lot, and proposing no building additions. We are maintaining drainage patterns within the existing parking lot and maintaining the existing curbline and grades along it. We will be picking up parking lot grade near the building in a few areas inboard of the curb to accommodate the proposed patio. Do these areas count toward the 10,000 SF?

(6) Site Development Plan Revision, Minor

Nonresidential building less than 1,000 sq. ft. of GFA or any site development activity which requires use of land of 10,000 sq. ft. or less including grading and filling or housing projects with less than 8 D.U.s	\$ 264	§ 165-110(A)
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Thank you!

Best,

Finn Bondeson, PE

Project Engineer

Licensed in Maine

Acorn Engineering, Inc

C: 207.540.5623

From: William Savage <wsavage@acorn-engineering.com>

Sent: Thursday, January 18, 2024 4:07 PM

To: Finn Bondeson <fbondeson@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>

Subject: FW: Home2 - Phased Construction

Best,

- Will

From: Collette, Anja <anja.collette@bangormaine.gov>

Sent: Thursday, January 4, 2024 4:36 PM

To: William Savage <wsavage@acorn-engineering.com>

Subject: RE: Home2 - Phased Construction

Thanks Will; hope you did too. The next step would be to submit the attached Land Development Permit application and note on there that it is a modification of a previously approved site plan. You'll also want

to submit the plans, along with a fee using our attached Schedule of Fees. You'll also want to submit a narrative of some sort detailing what's being proposed. Let me know if you have any questions on that.



CITY OF BANGOR

Anja Collette
Planning Officer
Community & Economic Development
Planning Division

73 Harlow Street
Bangor, ME 04401
anja.collette@bangormaine.gov
Phone: 207.992.4280

From: William Savage <wsavage@acorn-engineering.com>
Sent: Thursday, January 4, 2024 1:25 PM
To: Collette, Anja <anja.collette@bangormaine.gov>
Cc: Pete Heil <pheil@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; 'Ankur Patel' <apatel@girihotels.com>; 'Jon Ketchem' <jketchem@girihotels.com>; Wallace, Jeff <jeff.wallace@bangormaine.gov>
Subject: RE: Home2 - Phased Construction

WARNING: EXTERNAL EMAIL - DOUBLE CHECK THE SENDER'S ADDRESS BEFORE OPENING LINKS OR ATTACHMENTS.

Good afternoon Anja,

Following up on my voice mail please let me know when would be a good time to discuss next steps. Hope you had a nice holiday.

Best,

- Will

From: Collette, Anja <anja.collette@bangormaine.gov>
Sent: Wednesday, December 27, 2023 3:23 PM
To: William Savage <wsavage@acorn-engineering.com>
Cc: Pete Heil <pheil@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; 'Ankur Patel' <apatel@girihotels.com>; 'Jon Ketchem' <jketchem@girihotels.com>; Wallace, Jeff <jeff.wallace@bangormaine.gov>
Subject: FW: Home2 - Phased Construction

Hi Will, unfortunately it seems that the phasing plan was not approved by the Planning Board for this project, which would have been required. At this point, since the timeline has expired to complete the work shown in the

original plans approved by the Planning Board, this project would need to go back to the Board in order for Phase II to be completed. Please let me know if you have any questions.

Thank you,



CITY OF BANGOR

Anja Collette
Planning Officer
Community & Economic Development
Planning Division

73 Harlow Street
Bangor, ME 04401
anja.collette@bangormaine.gov
Phone: 207.992.4280

From: William Savage <wsavage@acorn-engineering.com>
Sent: Wednesday, December 20, 2023 4:07 PM
To: Krieg, Anne M. <anne.krieg@bangormaine.gov>
Cc: Pete Heil <pheil@acorn-engineering.com>; Sam Lebel <slebel@acorn-engineering.com>; Ankur Patel <apatel@girihotels.com>; Jon Ketchem <jketchem@girihotels.com>
Subject: Home2 - Phased Construction

WARNING: This email originated outside of our organization.
DO NOT CLICK links until you have double-checked the sender's email address.

Good afternoon Anne,

I wanted to provide you with the latest phased Site Plan for the Hilton Home 2. Its our understanding from Dunbar & Brawn Construction that the phasing approach was discussed with the City back in 2021. The improvements depicted within Phase II would not preclude our Client from moving forward with the final phase of construction pending finding a tenant for the permitted stand-alone restaurant building. Please let me know if you have any questions or comments.

Best,

Will Savage, PE
Principal

Licensed in Maine

Acorn Engineering, Inc
PO Box 3372

Portland, Maine 04104

[Instagram](#) | [LinkedIn](#) | [Email](#) | [Website](#)

B. 207.775.2655

C. 207.317.1884

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COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

June 4, 2024

Bangor Planning Board

Findings and Decision

Applicant/Owner: Northern Light Health
43 Whiting Hill Road
Brewer, Maine 04412

Agent: Atlantic Resource Consultants
541 US Route One
Freeport, Maine 04032

Property Address: 931 Union Street– Map-Lot R24-005-A/R24-006

Zoning District: Shopping and Personal Service (S&PS) & General
Commercial & Service (GC&S)

Permit Request: Land Development Permit – Planned Group Development
Modification

Description: Proposal for internal lot line modification of planned group
development

Public Hearing Date: June 4, 2024

Permitting Requirements: §165-69.D

Board Members Present: Chair Perkins, Vice Chair Brush, and Members Hayes,
Boucher, and Alternate Member Jonas

Board Vote: Motion carried 5-0 to approve the Land Development Permit

I. The Record

The Planning Board reviewed the following exhibits:

1. Land Development Permit application, received from Atlantic Resource Consultants on 03.22.2024
2. Final site plan, received from Atlantic Resource Consultants on 05.10.2024
3. Receipt for payment received from Atlantic Resource Consultants on 03.22.2024
4. Final checklist, sent to Atlantic Resource Consultants via email on 04.03.2024
5. Response to staff comments, received from Atlantic Resource Consultants via email on 04.09.2024
6. Code Enforcement sign-off, received via email on 04.09.2024
7. Stormwater comments, received via email on 04.12.2024
8. Fire Prevention sign-off, received via email on 04.18.2024
9. Stormwater comments, received via email on 04.18.2024
10. Stormwater & applicant comments, received via email on 04.18.2024
11. Proposed easement language, received from Atlantic Resource Consultants on 05.10.2024
12. Stormwater sign-off, received via email on 05.14.2024
13. Engineering sign-off, received via email on 05.14.2024
14. List of abutters within 100ft of subject property, generated by staff on 05.22.2024
15. Public notice sent to abutters within 100ft of subject property on 05.22.2024
16. Notice of mailing, generated by staff on 05.22.2024
17. Evidence of ownership and applicant being the same, received from Northern Light Health on 05.21.2024

II. Project Description and Permit Requirements

The Project will consist of the modification of the internal lot line of the planned group development located at 931 Union Street.

The lots involved are Map-Lots R24-005-A and R24-006, which is located in the Shopping and Personal Service District (S&PS) and General Commercial & Service District (GC&S), respectively. The current use of the lot is commercial with commercial abutters to the east and west and residential abutters to the north. As the project is a modification of a planned group development, it requires a Land Development Permit.

III. Procedural Background

1. The Application was deemed complete on June 4.
2. The Applicant paid all applicable fees (Exhibit 3).
3. The proposed Project is a Modification of a Planned Group Development.

IV. Applicable Provisions and Findings

Part 1 – The Project meets the requirements of §165-114 – Land Development Approval Standards

1. The Board finds that, based on Exhibit 2 and 13, the applicant satisfied Land Development Code §165-114.B's requirement that the proposed parking and loading layout are arranged in a reasonable and safe configuration.
2. The Board finds that, based on Exhibits 2 and 13 the applicant satisfied Land Development Code §165-114.C's requirement that all proposed access drives from the site to any public right-of-way are reasonably necessary and safe.
3. The Board finds that, based on Exhibits 2, 11, and 12, the applicant satisfied Land Development Code §165-114.D's requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects.

Part 2 – The Project meets the requirements of §165-69 – Planned Group Development

The Board finds that, based on Exhibits 2, 11, and 17, and based on the findings made in Part 1, the applicant satisfied the requirements of §165-69 for planned group developments.

V. Decision

The Board finds that the project meets the requirements for a Land Development Permit for Modification of a Planned Group Development and therefore, the Board grants the Land Development Permit for the proposed Project.

VI. General Permit Requirements:

- A. This permit does not relieve the applicant from any other state or federal permits that may be required for the project.
- B. Prior to construction, the applicant should contact the Code Enforcement Office for any additional permits that may be required.
- C. The plat for the Planned Group Development must be recorded at the Registry of Deeds. Evidence of recording must be provided to Code Enforcement before a building permit will be issued.
- D. Applicant must commence construction within one year from the date of approval and complete the project by June 4, 2026, unless extensions of time are granted per the provision of Chapter 165-113E.

- E. No certificate of occupancy for any structure will be issued by the Code Enforcement Division until the property for which the certificate is sought is in compliance with all applicable regulations, including but not limited to building, zoning, and stormwater requirements. A temporary certificate of occupancy may be issued when necessary under the provisions of § [165-113G of the City's Land Development Code](#).
- F. Upon completion, a digital as-built plan or plans shall be submitted to the Code Enforcement Officer. Additionally, a certificate of compliance stamped by a registered professional engineer or a registered land surveyor must be submitted to the Code Enforcement Office indicating that the site development has been completed in accordance with the approved revised plan.

Failure to comply with the conditions listed above constitutes a violation of the Bangor Land Development Code as prescribed in Chapter 165-10G.

This If you should have any questions or desire further information, please do not hesitate to give the Planning Division a call at 207.992.4280.

Sincerely,

City of Bangor Planning Board

CC: City of Bangor Planning Division
City of Bangor Code Enforcement Division



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

June 4, 2024

Bangor Planning Board

Findings and Decision

Applicant/Owner: Bangor International Airport
287 Godfrey Boulevard
Bangor, Maine 04401

Agent: Carpenter Associates c/o Randy Bragg
687 Stillwater Avenue
Old Town, Maine 04468

Property Address: 287 Godfrey Boulevard, Map-Lot 001-001

Zoning District: Airport Development District (ADD)

Permit Request: Land Development Permit – Major Site Development & Major SLODA (Site Location of Development) Modification

Description: Construct an 805-space, 404,200sqft parking lot (“Project”).

Public Hearing Date: June 4, 2024

Permitting Requirements: §165-111.A(3), (5); 38 M.R.S.A. §481-488

Board Members Present: Chair Perkins, Vice Chair Brush, and Members, Hayes, Boucher, and Alternate Member Jonas

Board Vote: Motion carried 5-0 to approve the Land Development Permit

I. The Record

The Planning Board reviewed the following exhibits:

1. Land Development Permit application, received from Carpenter Associates on 05.10.2024
2. Final site plans, received from Carpenter Associates on 05.14.2024

3. Narrative, received from Carpenter Associates on 05.10.2024
4. Permit requirements, generated by & received from Carpenter Associates on 05.10.2024
5. Location map, received from Carpenter Associates on 05.10.2024
6. Sample of bus shelters, received from Carpenter Associates on 05.10.2024
7. Greenspace planting calculations, received from Carpenter Associates on 05.10.2024
8. Acceptable native plantings list, received from Carpenter Associates on 05.10.2024
9. Lighting sample, received from Carpenter Associates on 05.10.2024
10. Stormwater summary, received from Carpenter Associates on 05.10.2024
11. Stormwater calculations, received from Carpenter Associates on 05.10.2024
12. Compensation fee calculations, received from Carpenter Associates on 05.10.2024
13. DIFW letter, received from Carpenter Associates on 05.10.2024
14. MHPC letter, received from Carpenter Associates on 05.10.2024
15. DACF letter, received from Carpenter Associates on 05.10.2024
16. SLODA application & materials, received from Carpenter Associates on 05.10.2024
17. Copy of IDTV, sent from Planning staff to Bangor International Airport on 04.30.2024
18. Response to staff comments, received from Carpenter Associates via email on 05.01.2024
19. Land Development Permit checklist, sent to Carpenter Associates from Planning staff via email on 05.03.2024
20. Response to checklist, received from Carpenter Associates via email on 05.13.2024
21. Code Enforcement sign-off, received via email on 05.13.2024
22. Stormwater sign-off, received via email on 05.14.2024
23. Engineering sign-off, received via email on 05.15.2024
24. Fire Prevention sign-off, received via email on 05.15.2024
25. Application acceptance form, sent by Planning staff to Maine DEP on 05.16.2024
26. List of abutters within 100ft of subject property, generated by Planning staff on 02.22.2024
27. Proof of advertisement run in *Bangor Daily News* on 05.23.2024
28. Public notice sent to abutters within 100ft of subject property on 05.22.2024
29. Notice of mailing, generated by Planning staff on 05.22.2024

II. Project Description and Permit Requirements

The Project will consist of the construction of an 805-space, 404,200sqft parking lot and will take place on Map 001-001, which is located in Airport Development District (ADD). As the project includes an off-street parking lot containing 20 or more spaces; requires filling, grading, and earthmoving; and is located in the Airport Development District (ADD), the proposed development must meet the requirements for a Land Development Permit (§165-111.A(3-5)). Additionally, per §165-95.B, the project also must meet the requirements of Articles II through XII and any applicable development standards of Article XIX of Chapter 165

III. Procedural Background

1. The Application was deemed complete on June 4, 2024.
2. The Applicant paid all applicable fees (Exhibit 17).
3. The proposed Project is a Major Site Development and a Major SLODA Modification.

IV. Applicable Provisions and Findings

Part 1 – The Project meets the requirements of Articles II through XII

1. The Board finds that, based on Exhibits 2 and 4, the applicant satisfied Land Development Code §165-33's requirements regarding filling, grading and earthmoving activities and §165-33.1's requirements regarding Erosion and Sediment Control best practices.
2. The Board finds that, based on Exhibit 2, the applicant satisfied Land Development Code §165-68's requirements regarding having a minimum street frontage no less than 50 feet.
3. The Board finds that, based on Exhibits 2, 4, 7, and 21, the applicant satisfied Land Development Code §165-73's requirements for parking setbacks and screening and §165-74's requirements for parking design, construction and maintenance.
4. The Board finds that, based on Exhibit 2, the applicant satisfied the Land Development Code § 165-79 requiring provision of necessary utilities.
5. The Board finds that, based on Exhibits 2 and 9, the applicant satisfied the Land Development Code § 165-81 requiring appropriate lighting, in accordance with regulations on intensity, direction, and height.
6. The Board finds that, based on Exhibits 2 and 24, the applicant satisfied the Land Development Code §165-82 requiring adequate fire protection.
7. The Board finds that, based on Exhibits 2, 4, and 23, the applicant satisfied the Land Development Code §165-83 requiring adequate electrical service.
8. The Board finds that, based on Exhibits 2, 10,11, and 22, the applicant satisfied the Land Development Code §165-84 requiring adequate provisions for surface water and storm drainage.

Part 2 – The Project meets the District Site Development Standards under Article XIX

The Board finds that, based on Exhibits 2 and 4, the applicant satisfied § 165-135 of the Land Development Code regarding impervious surface ratio and buffer yards.

Part 3 – The Project meets the requirements of § 165-95 – Airport Development District (ADD)

The Board finds that, based on the findings made in Parts 1 and 2 of this document, the Project meets the requirements of §165-95.B for uses within the Airport Development District (ADD).

Part 4 – The Project meets the requirements of §165-114 – Land Development Approval Standards

1. The Board finds that, based on Exhibits 2, 21, and 23, the applicant satisfied Land Development Code §165-114.B and C’s requirements regarding the layout and safety of the proposed parking, loading, and access drives to public rights-of-way.
2. The Board finds that, based on Exhibits 2, 10-12, and 22, the applicant satisfied Land Development Code §165-114.D’s requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects.
3. The Board finds that, based on Exhibits 2 and 9, the applicant satisfied Land Development Code §165-114.E’s requirement that all outdoor lighting shall be designed, installed, and maintained to avoid unreasonable adverse effects from light pollution.
4. The Board finds that, based on Exhibits 2, 8, and 21, the applicant satisfied Land Development Code §165-114.F’s requirements for providing proper screening between the development and adjacent properties and rights-of-way, preserving existing tree growth where possible, and encouraging the use of native species.
5. The Board finds that, based on Exhibits 2, 10-16, and 22-25, the applicant satisfied Land Development Code §165-114.J’s requirement that the Project meet the standards of 38 M.R.S.A. § 484 and the requirements of the Department of Environmental Protection regulations, Chapters 371-373, 375-377, and 500.

V. Decision

The Board finds that the project meets the requirements for a Land Development Permit for a Major Site Development and Major Site Location of Development Modification and therefore, the Board grants the Land Development Permit for the proposed Project.

VI. General Permit Requirements:

- A. This permit does not relieve the applicant from any other state or federal permits that may be required for the project.
- B. Prior to construction, the applicant should contact the Code Enforcement Office for any additional permits that may be required.
- C. Applicant must commence construction within one year from the date of approval and complete the project by June 4, 2026, unless extensions of time are granted per the provision of Chapter 165-113E.
- D. Upon completion, a digital as-built plan or plans shall be submitted to the Code Enforcement Officer. Additionally, a certificate of compliance stamped by a registered professional engineer or a registered land surveyor must be submitted to the Code Enforcement Office indicating that the site development has been completed in accordance with the approved revised plan.

Failure to comply with the conditions listed above constitutes a violation of the Bangor Land Development Code as prescribed in Chapter 165-10G.

This If you should have any questions or desire further information, please do not hesitate to give the Planning Division a call at 207.992.4280.

Sincerely,

City of Bangor Planning Board

City of Bangor Planning Division – Notice of Decision
Bangor International Airport – 287 Godfrey Boulevard – Map-Lot 001-001

CC: City of Bangor Planning Division
City of Bangor Code Enforcement Division



COMMUNITY & ECONOMIC DEVELOPMENT

CITY OF BANGOR

PLANNING DIVISION

July 2, 2024

Bangor Planning Board

Findings and Decision

Applicant/Owner: Penquis CAP, Inc.
262 Harlow Street
Bangor, Maine 04401

Agent: Carpenter Associates
687 Stillwater Avenue
Old Town, Maine 04468

Property Address: Hillside Avenue, Map-Lot R41-031-B

Zoning District: Shopping & Personal Service District (S&PS)

Permit Request: Land Development Permit – Major Site Development and
Planned Group Development

Description: Proposal for the construction of +/-22,030sqft single-story
child development center (day-care center)

Public Hearing Date: June 18, 2024

Permitting Requirements: §165-111.A(3)(4)(5)

Board Members Present: Chair Perkins, Vice Chair Brush, Member Bazinet, Member
Boucher, Member Hayes, Member Meagher

Board Vote: Motion carried 6-0 to approve the Land Development Permit

I. The Record

The Planning Board reviewed the following exhibits:

1. Land Development Permit application, received from Carpenter Associates on 03.01.2024
2. Final site plans, received from Carpenter Associates on 05.31.2024

3. Receipt for payment received on 03.01.2024
4. Narrative, received from Carpenter Associates on 02.29.2024
5. Existing conditions, received from Carpenter Associates on 02.29.2024
6. Quitclaim deed, received from Carpenter Associates on 02.29.2024
7. Easement deed, received from Carpenter Associates on 02.29.2024
8. Stormwater narrative, received from Carpenter Associates on 02.29.2024
9. Stormwater calculations, received from Carpenter Associates on 02.29.2024
10. Sewer narrative, received from Carpenter Associates on 02.29.2024
11. Water narrative, received from Carpenter Associates on 02.29.2024
12. Electrical narrative, received from Carpenter Associates on 02.29.2024
13. Lighting specifications, received from Carpenter Associates on 02.29.2024
14. Natural gas narrative, received from Carpenter Associates on 02.29.2024
15. Table showing compliance with dimensional controls, received from Carpenter Associates on 02.29.2024
16. Traffic narrative, received from Carpenter Associates on 02.29.2024
17. Owner-Agent-Applicant Authorization form, received from Carpenter Associates on 02.29.2024
18. Stormwater Law application, received from Carpenter Associates on 02.29.2024
19. Land Development Permit checklist, sent to Carpenter Associates by staff on 03.13.2024
20. Consultant letter, received from Carpenter Associates on 04.12.2024
21. Applicant response to Land Development Permit checklist, received from Carpenter Associates on 04.12.2024
22. Traffic Movement application, received from Carpenter Associates on 04.16.2024
23. PGD owner approval letter, received from Penquis CAP on 04.16.2024
24. Stormwater comments, received via email on 04.18.2024
25. Natural Resources Protection Act Permit application, received from Carpenter Associates on 04.18.2024
26. Fire Prevention sign-off, received via email on 04.22.2024
27. Code Enforcement sign-off, received via email on 04.22.2024
28. Water sign-off, received via email on 04.23.2024
29. Planning comments, sent to Carpenter Associates via email on 04.24.2024
30. Engineering sign-off from Jim Holmquist, received via email on 04.24.2024
31. Engineering sign-off from Jeff Davis, received via email on 04.24.2024
32. Grandview Limited Partnership Agreement, received from Carpenter Associates on 04.29.2024
33. Newton Place Partnership Agreement, received from Carpenter Associates on 04.29.2024
34. Additional staff comments and applicant response, sent via email on 04.29.2024
35. Applicant response to staff comments, received via email on 05.01.2024
36. Stormwater sign-off, received via email on 05.15.2024
37. Additional staff comments and applicant response, sent via email on 05.16.2024
38. Building elevation drawings, received from Carpenter Associates on 05.16.2024
39. Engineering comments, received via email on 05.31.2024
40. Traffic findings, received from Carpenter Associates on 05.31.2024

41. Engineering sign-off from John Theriault, received via email on 06.03.2024
42. Public notice sent to abutters within 100ft of subject property on 06.06.2024
43. List of abutters within 100ft of subject property, generated by staff on 06.06.2024
44. Notice of mailing by Planning Assistant Sarah Maquillan on 06.06.2024
45. Sewer capacity statement, generated by Planning staff on 06.11.2024

II. Project Description and Permit Requirements

The Project will consist of the construction of a +/-22,030sqft single-story child development center.

The project will take place on Map R41-031-B, which is in the Shopping & Personal Service District (S&PS). The lot is currently undeveloped. Since the project creates off-street parking containing 20 or more spaces; requires filling, grading, and earth moving; and is a permitted use in S&PS district, the proposed development must meet the requirements for Land Development Permit (§165-111.A(3-5)). As a Planned Group Development, the project also must meet the requirements of §165-69.

III. Procedural Background

1. The Application was deemed complete on June 18, 2024.
2. The Applicant paid all applicable fees (Exhibit 3).
3. The proposed Project is a Major Site Development and Planned Group Development.

IV. Applicable Provisions and Findings

Part 1 – The Project meets the requirements of Articles II through XII

1. The Board finds that, based on Exhibit 2 and 18 the applicant satisfied Land Development Code §165-33's requirements regarding filling, grading and earthmoving activities and §165-33.1's requirements regarding Erosion and Sediment Control best practices.
2. The Board finds that, based on Exhibit 2, the applicant satisfied Land Development Code §165-66's requirements that a transitional yard abuts any residential districts.
3. The Board finds that, based on Exhibit 2, the applicant satisfied Land Development Code §165-68's requirements for lot frontage.
4. The Board finds that, based on Exhibits 2, 23, 32, and 33 the applicant satisfied Land Development Code §165-69's requirements regarding planned group developments.

5. The Board finds that, based on Exhibits 2, 4, 21, and 27 the applicant satisfied Land Development Code §165-72 requiring adequate parking spaces and a minimum of 3 handicapped accessible spaces.
6. The Board finds that, based on Exhibits 2, 27, and 31, the applicant satisfied Land Development Code §165-73 regarding parking area location, setbacks, and screening and §165-74 regarding minimum design standards for surface parking and parking lot design.
7. The Board finds that, based on Exhibits 2, 4, 10-14, and 45, the applicant satisfied Land Development Code §165-79 & 80, requiring adequate connection to necessary utilities, including public water and sewer when possible.
8. The Board finds that, based on Exhibits 2, 4, and 13 the applicant satisfied Land Development Code §165-81 requiring appropriate outdoor lighting and the prevention of light trespass onto adjacent properties.
9. The Board finds that, based on Exhibits 2 and 26 the applicant satisfied the Land Development Code §165-82 requiring adequate fire protection.
10. The Board finds that, based on Exhibits 2 and 12, the applicant satisfied the Land Development Code §165-83 requiring adequate electrical services.
11. The Board finds that, based on Exhibits 2, 8, 9, 18, 24, 35, and 36, the applicant satisfied the Land Development Code §165-84 requiring provisions for surface water and storm drainage.
12. The Board finds that, based Exhibits 2 and 10 the applicant satisfied the Land Development Code § 165-85 and §165-86 requiring compliance with submitting information of anticipated sanitary flows and compliance with sewer regulation.

Part 2 – The Project meets the District Site Development Standards under Article XIX

The Board finds that, based on Exhibit 2 ,4, 27, 37, and 38 the applicant satisfied §165-135 of the Land Development Code regarding height limits, building envelope standards, floor area ratio, impervious surface ratio, and buffer yards.

Part 3 – The Project meets the requirements of §165-101 – Shopping and Personal Service (S&PS)

The Board finds that, based on the findings made in Parts 1 and 2 of Section IV of this document, the Project meets the requirements of §165-101 for a permitted use (large day-care) within Shopping and Personal Service (S&PS).

Part 4 – The Project meets the requirements of §165-114 – Land Development Approval Standards

1. The Board finds that, based on Exhibits 2, 4, 16, 22, and 40-41, the applicant satisfied the requirements of Land Development Code §165-114.B-C, regarding the proposed parking and loading layout and the proposed access drives from the site to any public right-of-way being arranged in a reasonable and safe configuration, including the provision for safe pedestrian travel to all on-site uses.
2. The Board finds that, based on Exhibits 2, 8, 9, 18, 35, and 36, the applicant satisfied Land Development Code §165-114.D's requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects.
3. The Board finds that, based on Exhibits 2, 4, and 13, the applicant satisfied Land Development Code §165-114.E's requirement that all outdoor lighting shall be designed, installed, and maintained to avoid unreasonable adverse effects from light pollution.
4. The Board finds that, based on Exhibits 2 and 31, the applicant satisfied Land Development Code §165-114.F's requirements for landscaping.
5. The Board finds that, based on Exhibits 2, 15, and 27 the applicant satisfied Land Development Code §165-114.G's requirements for building location and setbacks.
6. The Board finds that, based on Exhibit 25, the applicant satisfied Land Development Code §165-114.H's requirements regarding unreasonable adverse impacts to significant wildlife habitat and natural areas.

V. Decision

The Board finds that the project meets the requirements for a Land Development Permit for a Major Site Development and Planned Group Development and therefore, the Board grants the Land Development Permit for the proposed Project.

VI. General Permit Requirements:

- A. This permit does not relieve the applicant from any other state or federal permits that may be required for the project.
- B. Prior to construction, the applicant should contact the Code Enforcement Office for any additional permits that may be required.
- C. The plat for the Planned Group Development must be recorded at the Registry of Deeds. Evidence of recording must be provided to Code Enforcement before a building permit will be issued.
- D. Applicant must commence construction within one year from the date of approval and complete the project by June 18, 2026, unless extensions of time are granted per the provision of Chapter 165-113E.
- E. No certificate of occupancy for any structure will be issued by the Code Enforcement Division until the property for which the certificate is sought is in compliance with all applicable regulations, including but not limited to building, zoning, and stormwater requirements. A temporary certificate of occupancy may be issued when necessary under the provisions of § [165-113G of the City’s Land Development Code](#).
- F. Upon completion, a digital as-built plan or plans shall be submitted to the Code Enforcement Officer. Additionally, a certificate of compliance stamped by a registered professional engineer or a registered land surveyor must be submitted to the Code Enforcement Office indicating that the site development has been completed in accordance with the approved revised plan.

Failure to comply with the conditions listed above constitutes a violation of the Bangor Land Development Code as prescribed in Chapter 165-10G.

This If you should have any questions or desire further information, please do not hesitate to give the Planning Division a call at 207.992.4280.

Sincerely,

City of Bangor Planning Board

CC: City of Bangor Planning Division
City of Bangor Code Enforcement Division



CITY OF BANGOR

PLANNING DIVISION

COMMUNITY & ECONOMIC DEVELOPMENT

PLANNING BOARD
TUESDAY, JUNE 4, 2024, 7:00 P.M.
PENOBSCOT ROOM, LOWER FLOOR OF PENQUIS CAP
262 HARLOW STREET

MEETING MINUTES

Board Members Present:

Chair Reese Perkins
Vice Chair Ted Brush
Jonathan Boucher
Trish Hayes
Janet Sanborn Jonas (voting in
absence of Members Bazinet
and Meagher)

City Staff Present:

Anja Collette, Planning Officer
Grace Innis, Assistant Solicitor
Brian Scannell, Planning Analyst
John Theriault, City Engineer

Chair Perkins called the meeting to order at 7:00 P.M.

PUBLIC HEARING - LAND DEVELOPMENT CODE AMENDMENTS

- 1. To amend the Land Development Code by increasing height limits in the Multifamily & Service District and Urban Service District and for Rooftop Solar Arrays and Rooftop Mechanical Equipment.**

Planning Officer Anja Collette presented the agenda item and gave an overview of the proposed amendment.

Chair Perkins asked the Board for any questions or comments.

Vice Chair Brush asked where definitions of major and minor arterials can be found. Planning Officer Collette responded that they can be found in the Definitions section of the Code and gave several examples.

Chair Perkins opened the public comments – there were none. Public comments closed.

Member Boucher moved to recommend City Council approve the amendment of the Land Development Code by increasing height limits in the Multifamily & Service District and Urban Service District and for Rooftop Solar Arrays and Rooftop Mechanical Equipment. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

- 2. Zone Change – 107 Thomas Hill Road – Map-Lot 021-097 – Urban Residence 1 District (URD-1) to Urban Residence 2 District (URD-2) -** To amend the Land Development Code by changing a parcel of land, located at 107 Thomas Hill Road, Map-Lot 021-097, from Urban Residence 1 District (URD-1) to Urban Residence 2 District (URD-2). Said area of land contains approximately 0.21 acres total. Applicant/Owner: Jerry & Brenda West.

Chair Perkins introduced the agenda item. Member Boucher brought up a potential conflict of interest, as he was previously under contract to purchase the subject property. Chair Perkins asked if the passage of the zone change would renew Boucher's interest in the property – Boucher responded that he did not think so but could not say for sure without discussing with his wife. Assistant City Solicitor Grace Innis went over the definitions of conflicts of interest. Perkins commented that he did think it would be a conflict, but expressed concern over delaying the vote, as Boucher's recusal would result in a lack of quorum. Applicants Jerry & Brenda West presented to the podium and stated that they would appreciate expeditious action but would be fine with the delay if needed for proper proceedings.

Vice Chair Brush moved to recuse Member Boucher from voting on this agenda item due to a conflict of interest, seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed. Member Boucher excused himself from the remaining proceedings.

Planning Officer Collette asked if a motion to postpone this agenda item could still be performed with four members – Assistant City Solicitor Innis confirmed that it can.

Vice Chair Brush moved to postpone further proceedings on this agenda item until the June 18, 2024 meeting, seconded by Member Hayes. All in favor, none opposed – motion passed.

Member Boucher returned to the meeting.

PUBLIC HEARING – LAND DEVELOPMENT PERMITS

- 3. Land Development Permit – Planned Group Development Modification – 931 Union Street – Map-Lot R24-005-A & R24-006 -** Land Development Permit Application – Planned Group Development Modification for change to internal lot line of existing planned group development, at property located at 931 Union Street, Map-Lots R24-005-A & R24-006, in the Shopping & Personal Service District (S&PS) and General Commercial & Service District (GC&S). Applicant/Owner: Northern Light Health.

Chair Perkins introduced the agenda item and asked for any potential conflicts of interest. Member Boucher reported that he and his wife are both previous employees of Northern Light Health, and that his current employer works closely with Northern Light Health. Perkins expressed that he does not feel this is a conflict; Boucher added that he also does not feel it is a conflict or that it would cause any bias on his part. Board members in agreement.

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Planning Board Meeting Minutes – Tuesday, June 4, 2024

Alternate Member Jonas moved that there is no conflict of interest on the part of Member Boucher, seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that the application was deemed complete on June 4, 2024, that the applicant paid all applicable fees (Exhibit 3), and that the proposed project is a Modification of a Planned Group Development. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Chair Perkins offered to the applicant to have the agenda item postponed due to the absence of several Board members – applicant declined and opted to proceed.

Applicant agent Andy Johnston, Atlantic Resource Consultants, presented to the podium and gave an overview of the application.

Chair Perkins asked the Board for any questions or comments.

Member Boucher asked if the impervious ratio surface will change – Johnston responded that it will not and Planning Officer Collette clarified its inclusion within the planned group development.

Alternate Member Jonas asked about some damage in a separate portion of the lot and asked whether it is part of a separate stormwater system. Johnston responded that it partially is and clarified on the site plans.

Chair Perkins opened the public comments – there were none. Public comments closed.

Vice Chair Brush moved that the Board find that, based on Exhibit 2 and 13, the applicant satisfied Land Development Code §165-114.B's requirement that the proposed parking and loading layout are arranged in a reasonable and safe configuration. Seconded by Member Hayes. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find that, based on Exhibits 2 and 13 the applicant satisfied Land Development Code §165-114.C's requirement that all proposed access drives from the site to any public right-of-way are reasonably necessary and safe. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Alternate Member Jonas moved that the Board find that, based on Exhibits 2, 11, and 12, the applicant satisfied Land Development Code §165-114.D's requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects. Seconded by Member Hayes. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2, 11, and 17, and based on the findings made in Part 1, the applicant satisfied the requirements of §165-69 for planned group

developments. Seconded by Member Hayes. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board find that the project meets the requirements for a Land Development Permit for Modification of a Planned Group Development and therefore, the Board grants the Land Development Permit for the proposed Project. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

4. Land Development Permit – Major Site Development & Major SLODA Modification – 287 Godfrey Boulevard – Map-Lot 001-001 - Land Development Permit Application – Site Development Plan & Major SLODA Modification for proposed construction of an 805-space, 404,200sqft parking lot, at property located at 287 Godfrey Boulevard, Map-Lot 001-001, in the Airport Development District (ADD). Applicant/Owner: Bangor International Airport.

Chair Perkins introduced the agenda item and asked for any potential conflicts of interest – there were none.

Member Hayes moved that the Board find that the application was deemed complete on June 4, 2024, that the applicant paid all applicable fees (Exhibit 17), and that the proposed project is a Major Site Development and a Major SLODA Modification. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Chair Perkins offered to the applicant to have the agenda item postponed due to the absence of several Board members – the applicant declined and opted to proceed.

Applicant agent Randy Bragg, Carpenter Associates, presented to the podium and gave an overview of the application.

Chair Perkins asked the Board for any questions or comments.

Chair Perkins asked whether this will be operated similarly to the existing long-term parking lot – Bragg responded that this lot will address an immediate need as a shuttle lot, but may accommodate future growth. Perkins clarified that he was asking about this because he has some concern about “wasting” lights in unused parking area. Asked if they can be turned off or dimmed during periods of low parking lot use. Bragg responded that they are presently looking into lighting controls for this reason.

Alternate Member Jonas asked whether there is any plan to extend existing sidewalk all the way up to Union Street – Bragg responded that this is unlikely to be within the scope of this project. Jonas asked whether this is responsibility of the airport or the City – City Engineer Theriault stated it would likely be a City project. Theriault added that there has not been any request for this to be done at this point but he does expect to see more interest in this moving forward.

Vice Chair Brush asked about traffic circulation from the airport into the parking lot. Bragg clarified the entrance

City of Bangor Planning Division
Planning Board Meeting Minutes – Tuesday, June 4, 2024

points on the site plans. Brush asked if this will impact the current traffic flow – Bragg responded that it is not expected to have a significant impact. Chair Perkins added that the proposed addition of sidewalk will be very helpful.

Chair Perkins opened the public comments – there were none. Public comments closed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2 and 4, the applicant satisfied Land Development Code §165-33's requirements regarding filling, grading and earthmoving activities and §165-33.1's requirements regarding Erosion and Sediment Control best practices. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find that, based on Exhibit 2, the applicant satisfied Land Development Code §165-68's requirements regarding having a minimum street frontage no less than 50 feet. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Alternate Member Jonas moved that the Board find that, based on Exhibits 2, 4, 7, and 21, the applicant satisfied Land Development Code §165-73's requirements for parking setbacks and screening and §165-74's requirements for parking design, construction and maintenance. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board find that, based on Exhibit 2, the applicant satisfied the Land Development Code § 165-79 requiring provision of necessary utilities. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2 and 9, the applicant satisfied the Land Development Code § 165-81 requiring appropriate lighting, in accordance with regulations on intensity, direction, and height. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find that, based on Exhibits 2 and 24, the applicant satisfied the Land Development Code §165-82 requiring adequate fire protection. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Alternate Member Jonas moved that the Board find that, based on Exhibits 2, 4, and 23, the applicant satisfied the Land Development Code §165-83 requiring adequate electrical service. Seconded by Member Hayes. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board find that, based on Exhibits 2, 10,11, and 22, the applicant satisfied the Land Development Code §165-84 requiring adequate provisions for surface water and storm drainage. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2 and 4, the applicant satisfied § 165-135 of the Land Development Code regarding impervious surface ratio and buffer yards. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find that, based on the findings made in Parts 1 and 2 of this document, the Project meets the requirements of §165-95.B for uses within the Airport Development District (ADD). Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Alternate Member Jonas moved that the Board find that, based on Exhibits 2, 21, and 23, the applicant satisfied Land Development Code §165-114.B and C's requirements regarding the layout and safety of the proposed parking, loading, and access drives to public rights-of-way. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2, 10-12, and 22, the applicant satisfied Land Development Code §165-114.D's requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board find that, based on Exhibits 2 and 9, the applicant satisfied Land Development Code §165-114.E's requirement that all outdoor lighting shall be designed, installed, and maintained to avoid unreasonable adverse effects from light pollution. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find that, based on Exhibits 2, 8, and 21, the applicant satisfied Land Development Code §165-114.F's requirements for providing proper screening between the development and adjacent properties and rights-of-way, preserving existing tree growth where possible, and encouraging the use of native species. Seconded by Alternate Member Jonas. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that, based on Exhibits 2, 10-16, and 22-25, the applicant satisfied Land Development Code §165-114.J's requirement that the Project meet the standards of 38 M.R.S.A. § 484 and the requirements of the Department of Environmental Protection regulations, Chapters 371-373, 375-377, and 500. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board find that the project meets the requirements for a Land Development Permit for a Major Site Development and Major Site Location of Development Modification and therefore, the Board grants the Land Development Permit for the proposed Project. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

OTHER BUSINESS

5. Adoption of Notice of Decision for 688 Hogan Road

Member Boucher moved that the Board adopt the Notice of Decision for Land Development Permit for 688

Hogan Road, seconded by Vice Chair Brush. Roll call vote conducted – all voting members in favor, none opposed. Motion passed.

6. Adoption of Notice of Decision for 1161 Broadway

Member Boucher moved that the Board adopt the Notice of Decision for Land Development Permit for 1161 Broadway, seconded by Member Hayes. Roll call vote conducted – all voting members in favor, none opposed. Motion passed.

7. Meeting Minutes – May 7, 2024

Member Boucher moved to approve the meeting minutes, seconded by Vice Chair Brush. All voting members in favor, none opposed.

Chair Perkins reported that Joshua Saucier has resigned from the Board.

Member Boucher asked about Zoom participation for Board members who are not able to attend meetings in-person. Planning Officer Collette reported that this is allowed, but after the second occurrence, it needs approval from City Council Chair to continue; stated she will send the Zoom attendance policy to Board members.

City Engineer Theriault complimented the Board on their work. Member Boucher complimented the staff on their work compiling the meeting packets and creating a standardized format. Alternate Member Jonas asked if Findings & Decision documents could be placed closer to site plans in meeting packet – Planning Officer Collette responded that they can be placed at the beginning. Board members discussed methods for more easily reading through digital copies of meeting packets.

Meeting adjourned at 8:17 pm.

Respectfully submitted,

Sarah Maquillan,
Development Assistant
Planning Division



CITY OF BANGOR

PLANNING DIVISION

COMMUNITY & ECONOMIC DEVELOPMENT

**PLANNING BOARD
TUESDAY, JUNE 18, 2024, 7:00 P.M.
PENOBSCOT ROOM, LOWER FLOOR OF PENQUIS CAP
262 HARLOW STREET**

MEETING MINUTES

Board Members Present:

Chair Perkins
Vice Chair Ted Brush
Michael Bazinet
Jonathan Boucher
Trish Hayes
Donald Meagher

City Staff Present:

Anja Collette, Planning Officer
Brian Scannell, Planning Analyst
Grace Innis, Assistant Solicitor
John Theriault, City Engineer

Chair Perkins called the meeting to order at 7:00 P.M.

NEW BUSINESS

LAND DEVELOPMENT CODE AMENDMENTS

- 1. Zone Change – 107 Thomas Hill – Map-Lot 021-097 - Urban Residence 1 District (URD-1) to Urban Residence 2 District (URD-2) –**

*** At the June 4 Planning Board meeting, Member Boucher was voted to have a conflict of interest and was recused from this agenda item. The application was subsequently postponed until the June 18 meeting. ***

Member Boucher left the proceedings.

Chair Perkins made the applicants aware that since not all Planning Board members were present, they could postpone their hearing until a date with a full Planning Board. The applicants agreed to continue with the application.

The applicant presented to the Board on the proposed zone change.

Vice Chair Brush asked if this could be considered spot zoning because the applicants were applying to rezone the parcel URD-2 while being completely surrounded by URD-1.

Planning Officer Collette clarified that this neighborhood has existing multi-family houses. She also explained the concept of spot zoning in relation to planning theory, case law, and the role of the comprehensive plan in zoning amendments. Stated that prior court cases had established that it's not considered spot zoning if the zoning is done in accordance with an adopted comprehensive plan and that the courts had established that the comprehensive plan should be the guiding force when considering zone changes.

Chair Perkins expressed his opinion that this was spot zoning and preferred the City investigate different methods of review, outside of zoning amendments. Chair Perkins expressed his struggles with balancing the comprehensive plan's focus on increasing housing and conservation. Chair Perkins referenced the Housing Report and it's Mini-Villages proposal. He also added that Portland, ME had eliminated single family zoning.

Member Bazinet expressed his preference to defer to staff's opinion that this change conformed to the comprehensive plan and mentioned the need for housing in the City.

Member Meagher expressed that he found the application in line with the comprehensive plan and did not consider spot zoning to be a problem with this application.

Member Hayes expressed her intent to follow staff recommendations.

Vice Chair Brush added that the State of California had gotten rid of single-family zoning and mentioned the need for housing.

Chair Perkins opened the public comments – there were none. Public comments closed.

Member Bazinet moved to recommend that City Council adopt the zone change from Urban Residence 1 District (URD-1) to Urban Residence 2 District (URD-2) at 107 Thomas Hill – Map-Lot 021-097. Seconded by Member Meagher. Roll call vote conducted – Vice Chair Ted Brush, Member Bazinet, Member Hayes, and Member Meagher in favor, Chair Perkins opposed. Motion passed 4:1.

LAND DEVELOPMENT PERMITS

2. Land Development Permit – Major Site Development and Planned Group Development – Hillside Avenue – Map-Lot R41-031-B

Member Boucher returned.

Chair Perkins made the applicants aware that since not all Planning Board members were present, they could postpone their hearing until a date with a full Planning Board. The applicants agreed to continue with the application.

Jason Bird of Penquis CAP presented the project with assistance from Randy Bragg of Carpenter Associates.

Member Bazinet asked a question about turtle-friendly lighting. Planning Officer Collette explained that it is primarily meant for coastal areas since it relates to sea turtles, but is a good indication of whether it prevents light pollution.

Member Meagher moved that the Board find that the application was deemed complete on June 18, 2024, that the applicant paid all applicable fees (Exhibit 3), and that the proposed project is a Major Site Development and Planned Group Development. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board find, that based on Exhibit 2 and 18 the applicant satisfied Land Development Code §165-33's requirements regarding filling, grading and earthmoving activities and §165-33.1's requirements regarding Erosion and Sediment Control best practices. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board finds that, based on Exhibit 2, the applicant satisfied Land Development Code §165-66's requirements that a transitional yard abuts any residential districts. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board finds that, based on Exhibit 2, the applicant satisfied Land Development Code §165-68's requirements for lot frontage. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Bazinet moved that the Board finds that, based on Exhibits 2, 23, 32, and 33 the applicant satisfied Land Development Code §165-69's requirements regarding planned group developments. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Meagher moved that the Board finds that, based on Exhibits 2, 4, 21, and 27 the applicant satisfied Land Development Code §165-72 requiring adequate parking spaces and a minimum of 3 handicapped accessible spaces. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board finds that, based on Exhibits 2, 27, and 31, the applicant satisfied Land Development Code §165-73 regarding parking area location, setbacks, and screening and §165-74 regarding minimum design standards for surface parking and parking lot design. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Bazinet moved that the Board finds that, based on Exhibits 2, 4, 10-14, and 45, the applicant satisfied Land Development Code §165-79 & 80, requiring adequate connection to necessary utilities, including public water and sewer when possible. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board finds that, based on Exhibits 2, 4, and 13 the applicant satisfied Land Development Code §165-81 requiring appropriate outdoor lighting and the prevention of light trespass onto adjacent properties. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

City of Bangor Planning Division
Planning Board Meeting Minutes – Tuesday, June 18, 2024

Member Hayes moved that The Board finds that, based on Exhibits 2 and 26 the applicant satisfied the Land Development Code §165-82 requiring adequate fire protection. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Bazinet moved that The Board finds that, based on Exhibits 2 and 12, the applicant satisfied the Land Development Code §165-83 requiring adequate electrical services. Seconded by Member Boucher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Meagher moved that the Board finds that, based on Exhibits 2, 8, 9, 18, 24, 35, and 36, the applicant satisfied the Land Development Code §165-84 requiring provisions for surface water and storm drainage. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board finds that, based Exhibits 2 and 10 the applicant satisfied the Land Development Code § 165-85 and §165-86 requiring compliance with submitting information of anticipated sanitary flows and compliance with sewer regulation. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board finds that, based on Exhibit 2 ,4, 27, 37, and 38 the applicant satisfied §165-135 of the Land Development Code regarding height limits, building envelope standards, floor area ratio, impervious surface ratio, and buffer yards. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Bazinet moved that the Board finds that, based on the findings made in Parts 1 and 2 of Section IV of this document, the Project meets the requirements of §165-101 for a permitted use (large day-care) within Shopping and Personal Service (S&PS). Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board finds that, based on Exhibits 2, 4, 16, 22, and 40-41, the applicant satisfied the requirements of Land Development Code §165-114.B-C, regarding the proposed parking and loading layout and the proposed access drives from the site to any public right-of-way being arranged in a reasonable and safe configuration, including the provision for safe pedestrian travel to all on-site uses. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board finds that, based on Exhibits 2, 8, 9, 18, 35, and 36, the applicant satisfied Land Development Code §165-114.D's requirement that stormwater runoff from the proposed development will not have an unreasonable adverse effect on abutting or downstream properties or protected resources, and that all downstream channels or municipal stormwater collection systems have adequate capacity to carry the flow without significant negative effects. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Meagher moved that the Board finds that, based on Exhibits 2, 4, and 13, the applicant satisfied Land Development Code §165-114.E's requirement that all outdoor lighting shall be designed, installed, and maintained to avoid unreasonable adverse effects from light pollution. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Bazinet moved that the Board finds that, based on Exhibits 2 and 31, the applicant satisfied Land Development Code §165-114.F's requirements for landscaping. Seconded by Vice Chair Brush. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Boucher moved that the Board finds that, based on Exhibits 2, 15, and 27 the applicant satisfied Land Development Code §165-114.G's requirements for building location and setbacks. Seconded by Member Meagher. Roll call vote conducted – all in favor, none opposed. Motion passed.

Member Hayes moved that the Board finds that, based on Exhibit 25, the applicant satisfied Land Development Code §165-114.H's requirements regarding unreasonable adverse impacts to significant wildlife habitat and natural areas. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

Vice Chair Brush moved that the Board finds that the project meets the requirements for a Land Development Permit for a Major Site Development and Planned Group Development and therefore, the Board grants the Land Development Permit for the proposed Project. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

OTHER BUSINESS

3. Adoption of Notice of Decision for 931 Union Street – Northern Light Health

Vice Chair Brush moved to postpone adoption of this item and items 4 and 5 until the July 2 meeting. Seconded by Member Bazinet. Roll call vote conducted – all in favor, none opposed. Motion passed.

4. Adoption of Notice of Decision for 287 Godfrey Boulevard – Bangor International Airport

5. Meeting Minutes – June 4, 2024

OTHER BOARD COMMENTS

Vice Chair Brush expressed difficulty finding exhibits from the Findings and Decisions in the packet and suggested staff label files with their exhibit number. Vice Chair Brush also expressed discontent with the length of the Meeting Materials being over 800 pages and suggested removing duplicate files. Planning Officer Collette explained that Land Development submittal requirements include attaching materials submitted to other agencies, in addition to those requested by the City, which can cause duplications to occur where requirements overlap. Chair Perkins considered the legal implication of not including all materials submitted. Planning Officer Collette responded that City Staff would review their processes.

City of Bangor Planning Division
Planning Board Meeting Minutes – Tuesday, June 18, 2024

Meeting adjourned at 7:57 pm.

Respectfully submitted,

Brian Scannell,
Planning Analyst
Planning Division

Zoning Reform Toolkit

15 TOOLS TO EXPAND HOUSING CHOICE + SUPPLY



American Planning Association
Michigan Chapter
Creating Great Communities for All



Acknowledgments

The Michigan State Housing Development Authority generously provided funding support for this report – we thank them for their attention to this important topic. Thank you also to the Advisory Committee members who were instrumental in shaping this report through their expertise and insight.

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Introduction

If the pebble analogy were to apply to zoning, then it should be described as a boulder that hasn't just caused ripples...it has created a slow-building tsunami, the impacts of which are now only being fully understood. The seemingly benign zoning ordinance has, for many, eroded housing choice, washed away access to better schools and jobs, and drowned out opportunities to increase housing supply. Planners are now stepping back to evaluate how zoning must be modernized to reflect today's realities. This Toolkit is a first step to understanding what Michigan communities can do to stem the tide.

Zoning is the mechanism that dictates land development decisions and, ultimately, determines the patterns of our built environment. Minimum lot dimensions, maximum densities, use districts, and other regulations have shaped how - and where - we live, work, and play. Zoning influences:

- Where businesses can grow;
- If the workforce can find housing at a price point that fits their paycheck;
- How much time and resources must be dedicated to a commute;
- If a family's school-age children can attend a good school district;
- Whether aging adults can stay in their neighborhood; and even
- What an individual's life expectancy is likely to be simply by knowing their zip code.



Zoning has become a complex bundle of rules that attempts to protect owners of detached single-family from change. It also insures those residents have the loudest voices, because only that single housing type is permitted on most of the land. Fears about loss of property value, crime, traffic, and other misconceptions have been debunked in numerous studies yet oftentimes are cited - usually without any supporting data - as reasons for a community to deny housing proposals.

If the purpose of zoning is truly to protect the public's health, safety, and general welfare then fair zoning regulations are needed to serve everyone in Michigan's communities. Healthy environments rely on diversity, balance, adaptation, and growth. We have learned that our communities are really no different. How can Michigan's villages, cities, townships, and counties evolve in a rapidly changing world if zoning only maintains the status quo? New paradigms are needed and past practices modified to address the growing need to expand housing choice and supply.

Hard discussions and controversial decisions on the horizon. This Toolkit seeks to demonstrate to local units that State pre-emption, as has been done in other places, can be avoided if we work together to find practical solutions to the housing crisis. Who better to lead transformational changes to zoning than those who have been entrusted to create or administer the ordinance that guides development?

Zoning is a relatively new concept when looking at the history of land use in the United States. It began at the turn of the 20th century during the Industrial Revolution. Public health advocates sought to separate factories from residences and improve poor living conditions in tenement housing. Zoning now isolates people by income, housing type, family status, and age. This has created entirely new public health concerns related to obesity, traffic deaths, air and water quality, and loss of lands for food production.

There is a growing divide between people and places that is exacerbating poverty, limiting access to jobs and services, and diminishing health outcomes. This, in turn, is having a detrimental effect on our economy and peoples' lives. Reforms to current zoning practices can assist in improving housing choice, access, and opportunities so that all Michiganders can thrive.

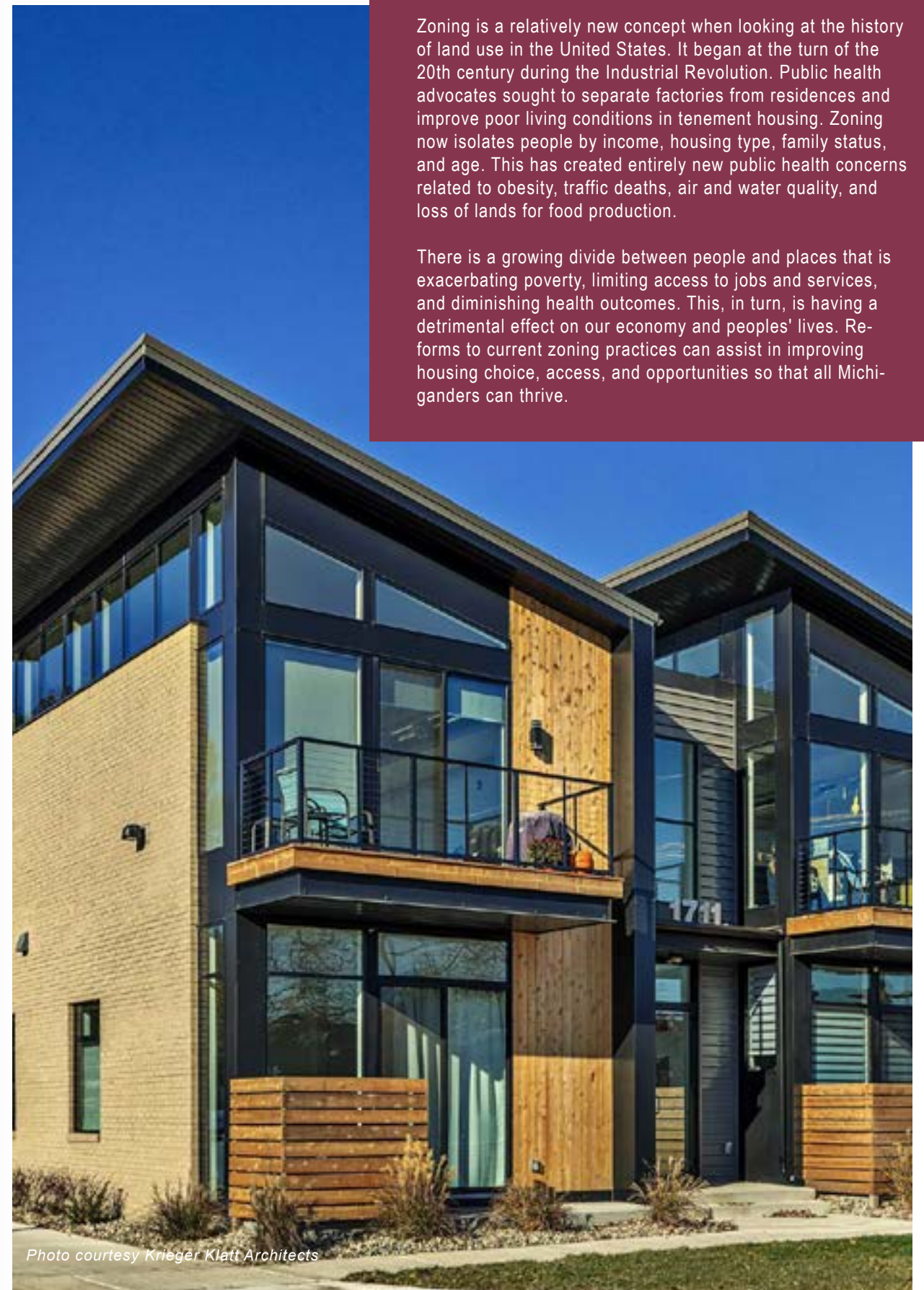


Photo courtesy Krieger Klatt Architects

Project Scope

There are few things as personal as sorting who can live where and what their housing choices might be. Whether you are an ardent property rights advocate or a strong civil rights supporter, zoning constraints have affected the ability to build housing and limit housing choice for many Michiganders.

A severe housing shortage has emerged. Due in part to zoning codes that prioritize detached single-family development over a variety of other housing types, there are not enough units to serve the broad range of household sizes and incomes needed now and in the future. Increasingly, community leaders are recognizing that not only do outdated land use regulations suppress housing supply and drive up housing costs, but they can also widen and perpetuate existing socio-economic disparities.

Implementing zoning reforms to ease restrictions can play a significant role in increasing housing supply. These are local government issues, and there is much that municipalities and other local units can do to mitigate the dampening effect of zoning on homebuilding. By adjusting local zoning codes and other regulations, engaging and educating residents, and removing barriers to creating new housing units, local governments can take steps to address the housing shortage.

The Michigan Association of Planning's *Zoning Reform Toolkit* provides local regulatory remedies to increase housing supply and shares communications strategies to overcome resistance to new development. We present 15 tools to encourage the construction of a variety of housing types to meet changing demographic needs and streamline approval processes which, when effectuated on a state-wide scale in every community, will begin to move the needle towards solving this complex issue.

The objectives of the Toolkit aim to:

- Equip municipal leaders with the tools they need to update and contemporize local zoning and development review regulations to develop more, and a broader range, of housing types;
- Highlight successful case studies in Michigan and nationwide that demonstrate the application of recommended strategies to reduce or remove regulatory barriers;

- Share master plan language to support the implementation of each tool and demonstrate how to translate a vision into zoning policy;
- Create messaging best practices to help everyone - elected leaders, municipal staff, residents, businesses, and other stakeholders - to broaden their understanding of housing needs and potential solutions within Michigan; and
- Build the foundation for future work, focusing on housing strategies that can be championed by a broad coalition of stakeholders.

This Toolkit is designed to help municipal leaders implement zoning reform to expand housing choice and supply and, in the process, combat the affordability crisis. As a community manager, elected or appointed official, zoning administrator, planner, or other person involved in guiding community change, we hope this Toolkit will be useful to you as you have important (and likely difficult) conversations with your colleagues and constituents on this complex issue.

In the chapters that follow, we lay out the elements of the housing crisis and create a case for zoning reform as a necessary intervention. We focus on the context of the crisis from an economic and historical perspective and detail the changing policy and demographic contexts that inform the issue. We then move to communications strategies for discussing the housing shortage and the necessity of zoning reform to combat it. Next we detail the fifteen zoning tools to address housing supply, choice, and affordability. In the last chapter, we look toward the future, sharing tips on how to get started with zoning reform in your community and the next steps for addressing the housing shortage in Michigan at a statewide level.

This Toolkit suggests that those who manage the development process can rethink the purpose of zoning and cultivate a nimbler and more pragmatic approach. Through zoning reform, we can build places where all people can find a place to live. Let's get started.



Fleetwood Rise Townhomes, BC

Framing the Problem

Calling this a crisis may feel alarmist to some. Others may believe we are facing another housing bubble, like the one that led to the Great Recession. Personal failure might be assigned by some others to find fault with a person who is struggling to find housing they can afford. The reality is that housing in Michigan and across the United States has reached a critical stage. We are, indeed, in a dire situation.

New Private Housing Units Authorized by Building Permits in Michigan



Federal Reserve Bank of St. Louis

THE HOUSING CRISIS

We simply have not built enough housing to meet demand. Despite a steady increase in the number of housing units built since the Great Recession in Michigan, construction numbers have not reached pre-recession levels. Economists suggest that somewhere between 25,000 and 30,000 new single-family homes should be constructed each year to keep up with normal life cycles of aged housing, changing demographics, and population shifts. Yet, an average of only 16,000 homes have been constructed annually since 2016.¹ The chart above illustrates that even during prior recessions (gray bars) housing production continued in Michigan until a precipitous decline in 2006.

A study conducted on behalf of the National Association of Realtors (NAR) found that when compared to construction levels between 1968 and 2000, the U.S. housing market failed to build 5.5 million housing units over the last 20 years. Accounting for the loss of existing units due to natural disasters, demolition, and functional obsolescence, that number grows to 6.8 million units.² Home construction in Michigan reflects this national trend of underproduction.

To make matters worse, Michigan's population was the second slowest growing in the nation between 2010-2020, at only 2%,³ but the number of households grew at twice this rate and is expected to increase another 3.7% by 2030.⁴ The

Housing Price Index and Real Median Housing Income in Michigan



Federal Reserve Bank of St. Louis, Housing Price Index for Michigan (blue) and Real Median Household Income in Michigan, Adjusted (red)

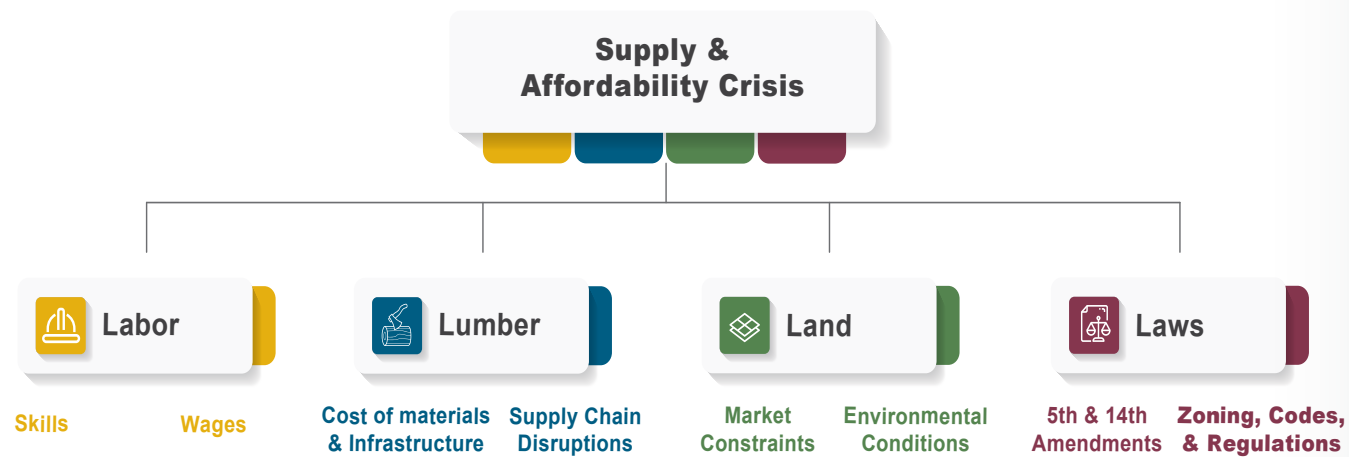
number of households has been increasing faster than total population because the number of people living in a housing unit is declining. For example, a family home now has fewer people in it when children move out to create their own household, or roommates decide to live separately when they can afford to do so. A Michigan State Housing Development Authority report in 2019 projected that Michigan will face a deficit of more than 150,000 housing units by 2045 if current trends continue.⁵ The lack of housing supply has driven the cost of housing increasingly higher due to rising demand.

The chart above shows the rising housing price index for Michigan over time and the adjusted median household income. Demand continues to rise and incomes have not kept pace, which only exacerbates the problem of maintaining levels of affordability. For example, the National Low Income Housing Coalition estimates the current need for nearly 205,000 rental units for extremely low-income households in Michigan, which comprise 28% of Michigan's renter households.⁶

INFLUENCING FACTORS

This perfect storm led us to a red-hot "seller's market" before interest rates began to climb, where would-be residents competed for scarce supply. If a community has 100 households all looking to buy or rent at the same time, but only five units are available, the price of housing will increase.⁷ There is greater demand for housing than available supply in many places in Michigan. Yet, there has not been an overwhelming increase in construction activity to meet demand. The combination of the Four Ls, or Labor, Lumber, Land, and Laws all play a role in the current housing crisis.

Labor. From the foundation to the roof, new buildings require many specialized crafts, including plumbers, electricians, framers, drywallers, painters, and more. There is a shortage of skilled tradespeople who can do the necessary work of building and housing rehabilitation. The current labor shortage in the construction industry and related trades can be traced back to the Great Recession. When the housing bubble burst, demand for new homes plummeted. As work dried up, laborers in construction and other trades left the field.⁸ A report by the Home Builders

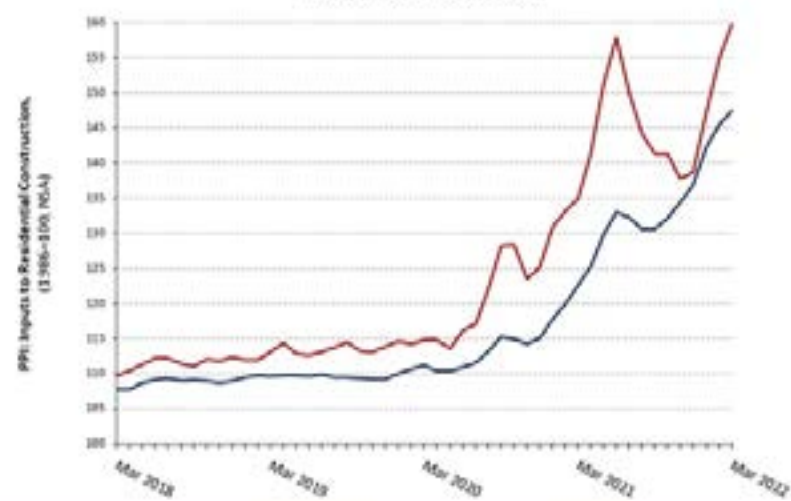


Association of Michigan in 2017 reported that between 2000 and 2009, Michigan lost 43% of its workforce in residential construction.⁹ Many of these workers have not been replaced.

Lumber. The cost of construction materials and their availability has not only made housing more expensive to develop, but also extended project timelines. Building materials prices have risen 33% since the start of the pandemic in February 2020. The price index of services used in home building (including trade services, transportation, and warehousing) have increased 15.2% since the start of 2022, and 39% since the start of the pandemic.¹⁰

Infrastructure can also significantly influence housing supply and affordability. A parcel that is not served by sewer, for example, must be large enough (typically at least ¾ of an acre) to accommodate an on-site septic system. However, where sewer and water are available, land can be divided into smaller parcels. Instead of a ¾ of an acre parcel supporting just one home, it could support a dozen townhomes. If that parcel were valued at \$75,000, the cost of land could be fully allocated to the one unit with the septic system or divided to be as little as \$6,250 for each townhome unit on sewer.

Price of Inputs to Residential Construction
March 2018 - March 2022



According to the Producer Price Index (PPI) report released by the Bureau of Labor Statistics in March 2022, building materials prices increased 20.4% year over year and have risen 33% since the start of the pandemic.

Land. The availability of land for development can heavily impact housing prices. Commonplace scenarios include an unwilling landowner who stalls the aggregation of property that would make a more cost-effective development site; a desirable property located near a regional center with community amenities being priced at an unreasonable premium; or a site that is encumbered with easements or deed restrictions. Suitable soils can also be an important contributing factor to land availability. Where large portions of a region are impacted by wetlands, river estuaries, or a high-water table, opportunities for new housing can be limited. In high-demand areas, if much of the land area is not buildable, or if the available land is over-regulated, this will result in higher prices for the limited land that is buildable.

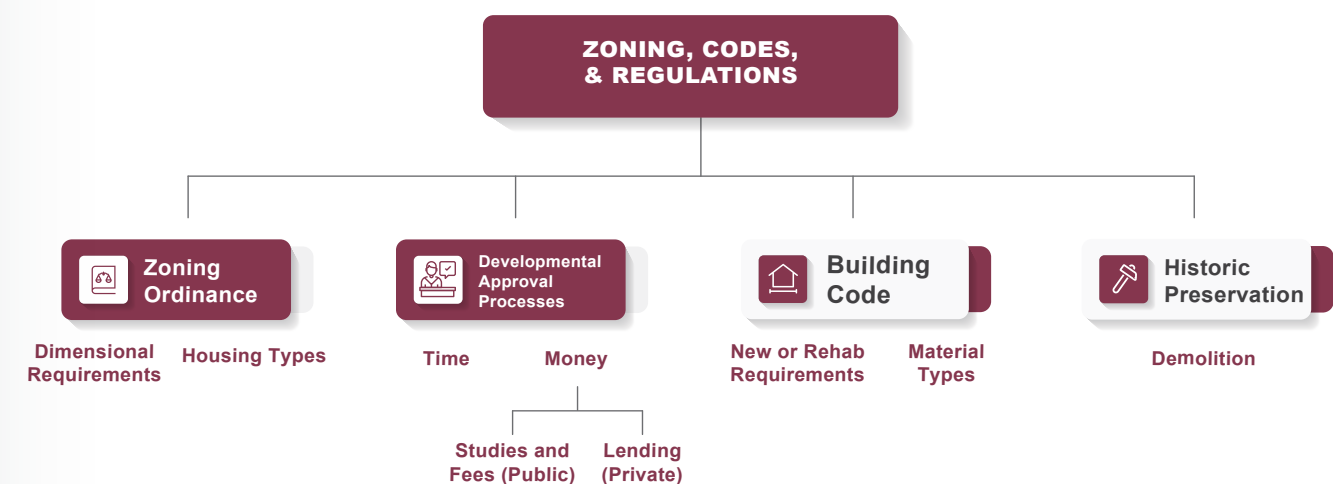
Laws. The 5th and 14th Amendments of the Constitution ensure individuals the right to “life, liberty, or property,” due process, and the protection of property rights. These amendments and corresponding case law drive the limits of governmental intervention to resolve matters of housing supply. Local laws, however, often directly influence which types of homes (single-family, duplex, townhome, apartments, etc.) and lots are legal to construct and, thus how much the land and house are likely to cost.

Local zoning provisions which set minimum standards for home or unit size, lot size, lot width, or lot frontage will play an important role in determining how many units and lots

can be created and what a new homeowner or renter will have to pay. These are typical dimensional requirements. Most ordinances also dictate the housing type that can be constructed in each zone district, thereby pre-determining a community’s housing inventory and selecting the types of housing units a prospective resident can choose from.

Development approval processes can also add substantial time and cost to a proposed project without the guarantee of success. The National Home Builders Association, in a letter addressed to President Biden in April 2022, called for the reduction of “burdensome regulations that account for nearly 25% of the price of building a single-family home and more than 30% of the cost of a typical multifamily development.”¹¹ This assertion is supported by a number of well-documented studies. Delays in approval processes due to neighbor opposition can increase land prices by 12%.¹² This, then, creates an incentive for developers to build affordable housing where it is most politically expedient: in existing low-income neighborhoods where a concentration already exists.¹³ The practice creates a lack of opportunity for low-income individuals to access places that may have better schools, shorter commutes, and needed services.

In addition to zoning, there are other factors that play a role in project feasibility, including the building code, historic preservation review, and private lending criteria.



Building code. Most Michigan communities use the International Building Code (IBC), a state-wide code that has a lengthy amendment process. The IBC places nearly all housing types other than single-family into the more expensive commercial construction category; making it difficult for residential homebuilders to comply.

Historic preservation can be important for placemaking and community culture; however, it can also be a method to prevent change. Local historic districts are usually created through grass-roots advocacy, and local commissions have latitude when considering redevelopment proposals. An historic review can mean additional process, including time and fees.

Private lending can require site and building improvements that may not be desired by the community or the developer; such as additional parking spaces, in-unit laundry facilities, or walls that separate a new development in a revitalizing neighborhood from its surroundings. Unless the developer and community comply with lender demands, a project may not materialize.

Considerations addressed in this Toolkit are not exhaustive. Key zoning provisions and related development approval processes are the greatest opportunities local units of government can have a significant impact on influencing housing supply and affordability.

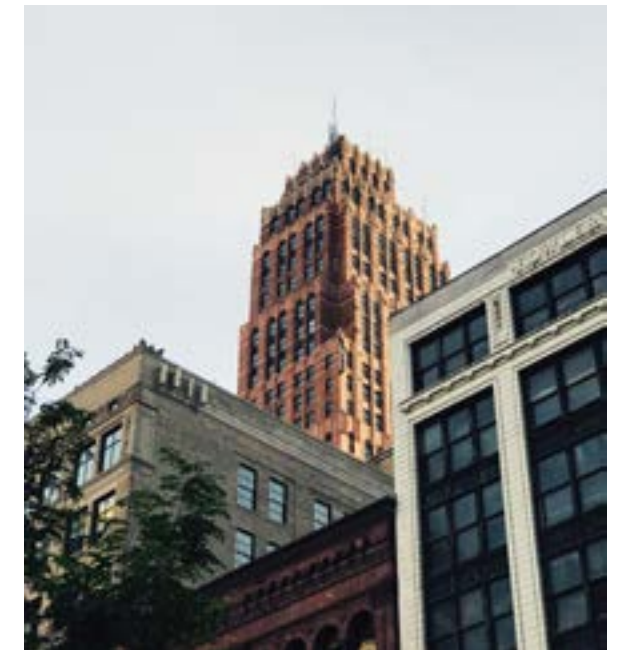


Google Earth

ECONOMICS OF HOUSING

The influencing factors of Labor, Lumber, Land, and Laws have placed unprecedented pressure on a commodity that is also considered a basic human need.¹⁴ These factors, of course, are interrelated. Because of labor and materials shortages, the construction cost per square foot for a residential unit has escalated from an average of \$150/sq. ft. in 2015 to nearly \$250/sq. ft. in many areas of Michigan in 2022. As a result, the very same 1,000 sq. ft. home that would have cost \$150,000 to build in 2015 is now costing \$250,000 or more. Consider:

- If that 1,000 sq ft home costs \$250,000 to build, the cost of the land for that home can play a critical role in influencing whether or not that home is attainable to a family in the region. If the minimum lot size is an acre, and the cost of a 1-acre lot is \$75,000 or more, the price of the home plus land is likely to exceed \$325,000. Many households will be instantly priced out. However, where the land can be subdivided to create additional buildable lots, the cost of land will be less and the home attainable to more people.
- If the local building community needs to build 100 homes each year, and the local regulatory code requires all new homes to be constructed on large lots with expensive infrastructure, it is very likely that builders will choose to use their limited labor supply to build the most expensive homes first. Those homes will likely be the most profitable because expensive homes can more readily absorb the higher costs of labor, land, and materials. Alternatively, where a builder or developer is able to construct many homes at once, there will be efficiencies in materials, labor, and land costs. These efficiencies can help to justify lower price points for new homes.
- If it takes two years to obtain Planned Unit Development (PUD) approval from



the planning commission and elected body for a housing project request, it may be another year (depending on Labor and Lumber) before housing units are available for sale or lease. If prices continue to increase, estimates at the beginning of the approval process may no longer be accurate, even with contingencies. Two of the three years in this PUD example could be eliminated with a streamlined approval process.

Solving housing needs and need categories across all price points requires changing a “one-size-fits-all” approach. The amount of land required to support a housing unit is not a fixed number. Neither is the number of square feet needed to support a household. The amount of land and built space required for a home is highly variable and dependent upon the number of people in a household, the household’s income, the local regulatory requirements, the availability of public transportation or other viable mobility choices, and more. There is no one magical solution, and therefore it is imperative that local units of government plan and zone for a variety of housing types and price points across their communities. This is, of course, easier said than done.

PROPERTY VALUES

Historically, achieving the American Dream has equated to homeownership. Entire systems have been created to support this idea, and homeownership has become a primary way to build wealth. There is a preponderance of federal and state measures targeted at homeowners, but few programs available for renters.

The largest economic housing subsidy provided by the federal government comes in the form of the mortgage interest deduction on federal taxes. In a recent study, researchers found that the federal government provided over \$400 billion in tax subsidies for homeownership between 2017 and 2021. Comparatively, the next largest housing program, the Low Income Housing Tax Credit, which primarily benefits renters, received \$72 billion in federal funding over those same five years.¹⁵

In Michigan, the Headlee Amendment, Proposal A, and the Principal Residence Exemption have created a distortion in the residential housing market: it makes more sense for people to stay in their homes longer rather than right-size into a smaller home because a move will bring higher taxes. State policy has created a system that makes housing more expensive for renters as they cannot reap the financial savings that the tax benefits provide.¹⁶ As rents continue to rise, homeownership becomes a distant possibility for more people who must spend a greater proportion of their income on housing.¹⁷

Homeowner bias found in tax policy is also evident throughout local policy-making. William Fischel, an economist, holds that “homeowners are the dominant faction in local government politics. Owner-occupied homes provide both consumer

In 1978, Michigan voters approved an amendment to the Michigan Constitution known as the Headlee Amendment. Property taxes were indexed to the rate of inflation, so that if the assessed value of a local tax unit’s total taxable property increases by more than the inflation rate, the maximum property tax millage must be reduced such that taxes yield the same gross revenue. Homeowners benefit because even if the value of the home rises 15-20% per year (as it has done over the last several years), property tax increases are limited.

The Michigan Education Finance Amendment, referred to as Proposition A and passed in 1994, further limits the increase in taxable value of a property to 5% or the rate of inflation, whichever is less. Only when a property is sold or transferred does the taxable value reset to the State Equalized Value (SEV) and annual taxable values are then capped again. In addition, the Principal Residence Exemption (PRE) provides any homeowner of a principal residence a discount from a portion of local school operating taxes.

In communities where property values have been skyrocketing, the only way to increase tax millage rates that were rolled back during the Great Recession is by a vote of the people. These values cannot be reset to a level where the current value is fully captured because of the caps set by State law. It is worth noting this is becoming the next fiscal challenge for local units who cannot capture the new value created by escalating home prices and must actually lower (“roll back”) their millage rates to be in compliance with the Headlee Amendment because property growth has exceeded inflation. The City of Traverse City, for example, could potentially lose an estimated \$4.5 million over the next five years by 2027, according to the City Treasurer.



services (housing) and an undiversified, durable investment (house and land) that is sensitive to what local governments do. As a result, homeowners monitor local government activities and discipline local officials whose actions jeopardize home values.”¹⁸ Neighbors are often motivated by a desire to defend their investment and to guard against any type of activity they believe may adversely affect the value of their home. Unfortunately, this has had real impacts on the number of new housing units brought to market.



Recent studies have begun to show that perception is not the same as reality when it comes to the effect of new development on home values. In fact, there is no discernable difference in the rate of appreciation between homes located near higher-density development and those that are not, nor does it create more congestion or crime.¹⁹ At the University of Utah Kem C. Gardner Policy Institute, researchers found that overall home values and values per square foot were higher near multi-family development rather than the opposite.²⁰ The study found:

- Homes located in Salt Lake County located within a half-mile of a newly constructed apartment building rose by 10% in median value per year between 2010 and 2019. Those farther away rose by 8.6%.
- Homes closer to multifamily housing also had an 8.8% higher median value per square foot than those beyond a half-mile away, even though the houses tended to

be slightly smaller in size, about seven years older on average, and had smaller lots.²¹

Properly designed and maintained housing – of any type – in an appropriate context is what matters. For example, The George Washington University School of Business conducted a study of 761 regionally significant, Walkable Urban Places (WalkUps) in the 30 largest metropolitan areas in the United States.²² The group then went on to analyze seven Michigan metropolitan areas in *The WalkUP Wake-Up Call: Michigan Metros* report to see if the same market-based findings applied. The researchers found:

- Michigan residents have few choices about where to live. Only 8% of the total housing stock is located in walkable urban places, and only 4% of the housing stock built since 1960 is considered to be in places that are walkable.
- National polls suggest that 40% of residents would like to live in an Walkable Urban Place or a Walkable Neighborhood.
- There is pent-up demand across all of Michigan’s metros. For-sale residential homes sell for 56% more per square foot in a WalkUp than in an Edge City. Multifamily apartments have lease rates that are 28% higher than in drivable suburbs.²³
- For-sale housing sells for 56% more per square foot when located in premium walkable urban places, and multi-family rental premiums were 46% higher than in drivable suburban communities.
- Walkable urban places performed substantially higher than low-density development patterns in terms of tax base and ability to pay for infrastructure.
- The authors cautioned that as pent-up market demand increases, as it has, then affordability will be a challenge.²⁴

Both the University of Utah and George Washington studies identified an unmet demand for affordable, compact, pedestrian-

oriented and transit-accessible housing - housing types that are illegal to build in many places. To have a more sustainable tax base, better health outcomes, and lower transportation costs (which affect affordability), these studies recommend building more diverse housing types in a walkable form, helping to connect residents to jobs, opportunities, and the goods and services that meet their daily needs.²⁵ In other words, the form of development can produce more equitable outcomes for a community's population.

Paradoxically, many residents want vibrant villages with places to eat and shop, low-cost infrastructure, protected natural resources, and large lot low-density detached single-family housing... all at the same time. Yet, these desires are at odds with one another. Detached single-family units, particularly on large lots, is not an efficient development pattern. It promotes driving over walking, and the monoculture of use does not allow for the vibrancy of a mixed-use environment.

Residential development comprises the largest area of a community, and the way it is configured has a substantial impact on everything else. If we are to diversify Michigan's housing stock to adequately serve the people who live here, whether it is in a community that is quickly growing,

or experiencing vacancies, new housing of varying types is needed. Even in communities with declining populations, housing stock should still be improved or replaced. Aging housing stock creates economic burdens in the form of increased maintenance and inefficiencies in energy; both of which can contribute substantially to the overall cost of housing, particularly for low-income individuals.

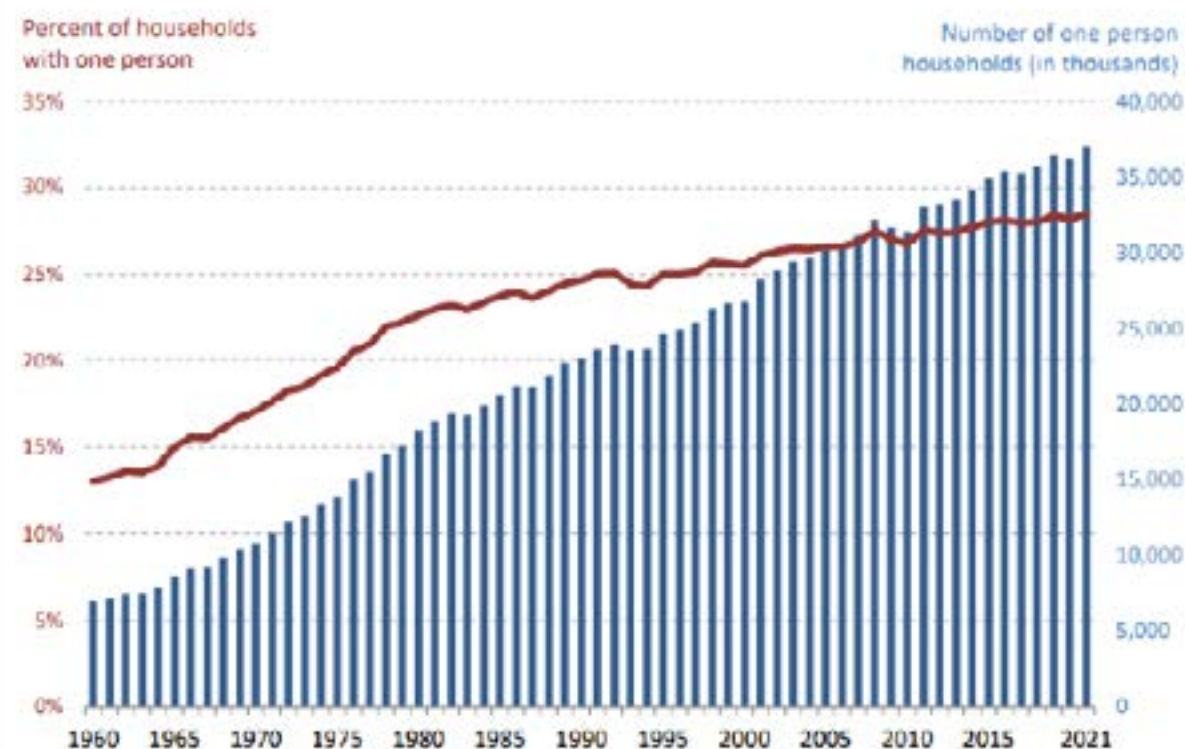
HOUSEHOLDS, HOUSING STOCK, AND FINDING THE MISSING MIDDLE

What does a typical American household look like? If you envisioned a married couple with two kids, a dog, in a home with a white picket fence, you might be in for a surprise. The American household today looks very different than when *Leave It To Beaver* was on television. From household size and makeup to housing preferences, families and communities have been changing.

More people are living alone. People living alone are now the most common type of household. Nationally and in Michigan, people living alone account for approximately 30% of all households.²⁶ Single-person households accounted for only 13% of all U.S. households in 1960.²⁷

George Washington University School of Business study recommendations directly align with placemaking initiatives supported by the Michigan Municipal League (MML) and Michigan State University's Land Policy Institute (MSULPI), and resemble cornerstone housing and economic development policies in the State of Michigan, spanning mutli-party gubernatorial terms within the offices of the Michigan State Housing Development Authority (MSHDA) and the Michigan Economic Development Corporation (MEDC).

The rise of living alone



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1960 to 2021.

Households are getting older. In 1960, 18% of U.S. householders were 65 years or older; in 2020, 27% of householders were over 65 – that's more than 1 in 4 households.²⁸ In Michigan, the percentage of households with at least one person aged 65 years or older is approximately 30% or almost 1 in 3 households.²⁹

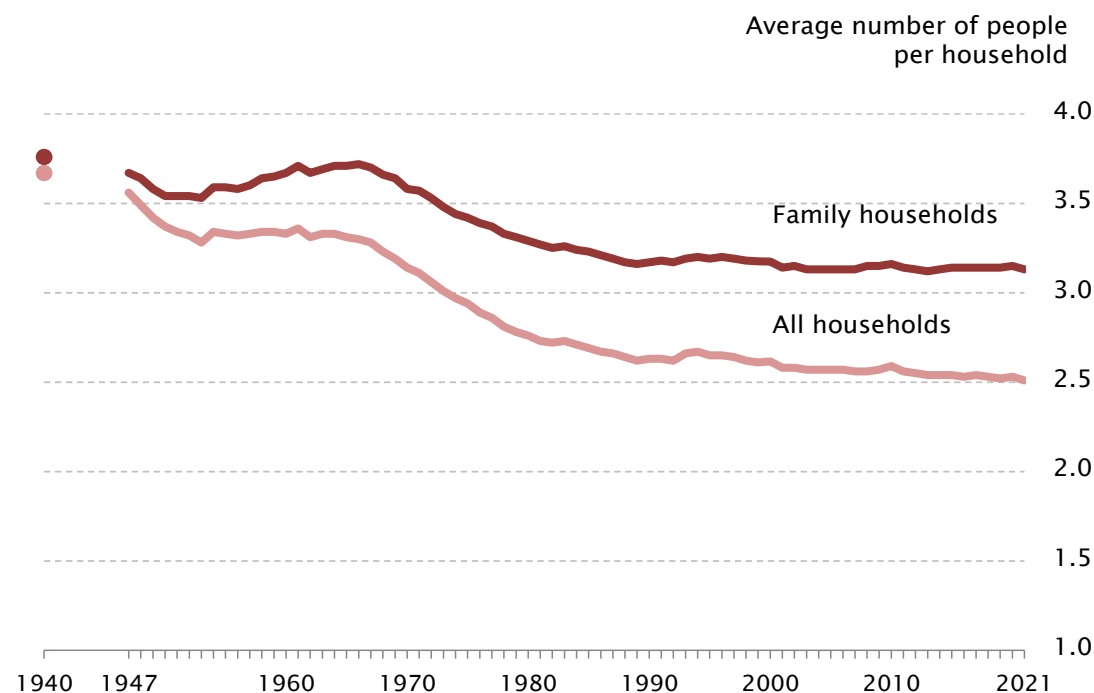
Multi-generational households are increasing. There has been an increase in the number of adult children living with their parents, as well as other types of multi-generational households. Between 2000 and 2017, the share of young adults (ages 25-34) living with their parents almost doubled, from 12% to 22%.³⁰ At the same time, the number of Americans living in multigenerational households has increased to almost 20% of the population, up from the lowest share in 1980 at 12%.³¹

Households are getting smaller. The second biggest household type is couples living together with no children, which comprise one-quarter (25%) of all households. The average household size in 1960 was 3.29 people. Gradual declines in household size occurred in each subsequent decade. The average household size in the U.S. was 2.51 people in 2020.³² Michigan's household average is smaller, with 2.45 people per household. Nuclear families, defined as two adults living with children under 21, now represent just one of every five (20%) households.³³

Walkable neighborhoods are preferred by the largest generations.³⁴ Millennials and Baby Boomers desire to live in walkable neighborhoods and not necessarily in downtowns. Walkable suburban neighborhoods have become more popular, especially for Gen Zers and Millennials.



Changes in household size



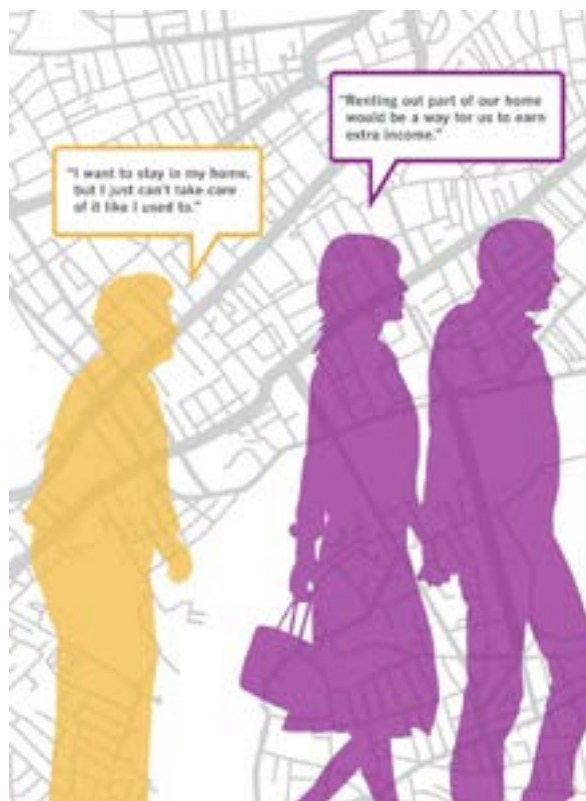
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1940 and 1947 to 2021.

Baby Boomers would like to age in place.

A report by the AARP, Making Room for a Changing America (2019), found that 77% of people aged 50 or older said they wanted to stay in their current community for as long as possible and 76% want to stay in their current residence as long as possible. Of people aged 65 or older, 86% want to remain in their current community and home.^{35 36}

We don't have the housing stock for an aging population.

Approximately 45 million people are age 65 or older today. By 2030, that number will reach 73 million – or 1 in every 5 Americans. Of these, 20% are anticipated to have some sort of physical disability. In an AARP poll, one-third of those polled said they would need to modify their current residence so they could live there if they had physical limitations. Only 54% of homes have a step-free entryway, according to the American Housing Survey.^{37 38}



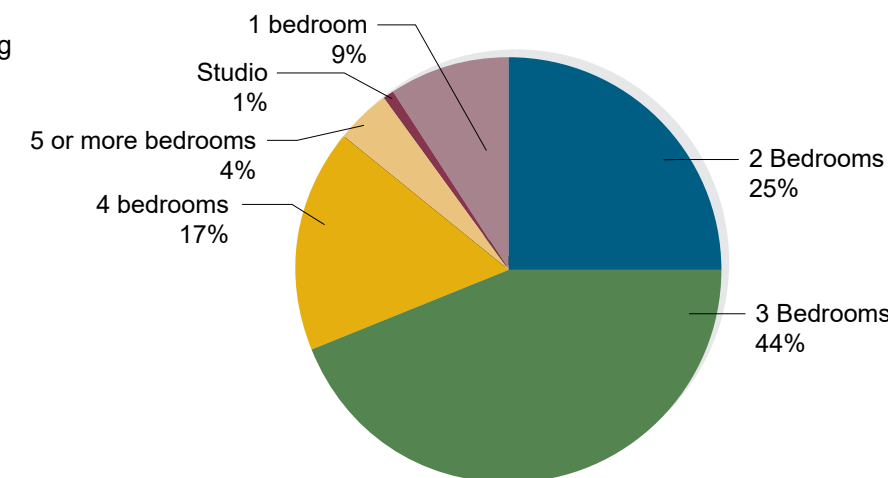
Source: AARP Making Room: Housing for a Changing America

Homes have been getting bigger. The median size of a single family home completed in 2020 was 2,261 sq. ft.³⁹ Comparatively, the median square footage of a single family home in 1960 was 1,500 sq. ft.⁴⁰ Minimum unit sizes, required either by zoning or homeowners associations, can price potential buyers out of a market, exacerbating high housing prices.

Zoning has made detached single-family the only option in many communities. Of the 1,287,000 new housing units completed in the U.S. in 2020, 71% were single-family homes. This number aligns with what is permitted to be developed according to local zoning. A New York Times analysis of zoning across the country found that it is illegal on 75% of residentially zoned land to build anything other than a detached single-family home.⁴¹

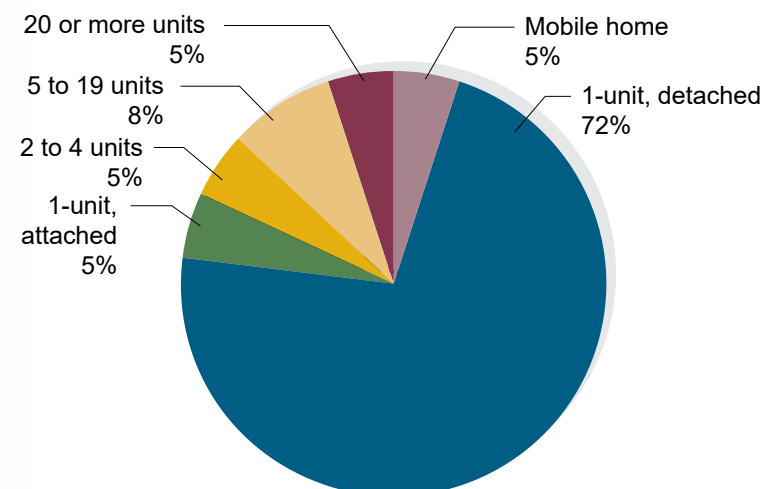
There is a significant mismatch between our housing stock and household sizes. Similar to nationwide numbers, nearly three-quarters (72%) of Michigan's housing units are detached single-family homes. This housing type is typically thought of as family housing, but more householders live alone (30%) than have children under the age of 18 (28%). Housing unit sizes (as determined by number of rooms) don't align with the reality of our current demographics. Two-thirds of Michigan's housing stock has 3 or more bedrooms, while only 10% of all housing units are comprised of a studio or one bedroom unit.

Percentage Number of Bedrooms in Michigan Housing Units | 2020



Graphics on this page from ACS 2020 5-Year Estimates: DP02 | Selected Social Characteristics in the US

Percentage Housing Units by Type in Michigan | 2020



Households by Type in Michigan, 2020

Households by Type	Percent
Household with no spouse/partner present	46%
Living Alone	30%
Married-couple or cohabitating couple	54%
Households with 1 or more <18 years	28%
Households with 1 or more 65 years +	31%



Neighborhood amenities matter. In 2020, the National Association of Realtors (NAR) Community and Transportation Preferences Survey found that “One in 5 people living in a detached home would prefer to live in an attached home if it meant living in a walkable community with a shorter commute. Only 1 in 10 prefer the opposite trade-off.” The survey also found that people living in walkable communities are more satisfied with their quality of life.⁴² An AARP poll found that 62% of respondents would consider building an Accessory Dwelling Unit (ADU) on their property for a loved one who needed care, or a family member or friend that needed a home.⁴³

Support to allow Missing Middle⁴⁴ housing exists. Zillow surveyed 26 Metro Areas and found residents were more likely to support allowing accessory dwelling units (69% supported versus 23% opposed) and duplexes and triplexes (61% supported versus 31% opposed) in every single metro. Most respondents (68%) also said allowing small and medium apartment buildings would have a positive impact on the availability of more affordable housing options, but they split more evenly on apartment buildings in their own backyards: Across all the surveyed metros, 57% agreed they would support a multifamily residence like an apartment building being built in their neighborhood, while 37% disagreed. Renters expressed greater support than homeowners.

Support Allowing in Residential Neighborhoods:

	ADU's	Duplexes / Triplexes	Either ADU's or Duplexes or Triplexes
Total	69%	61%	77%
Homeowner	66%	55%	73%
Renter	76%	72%	84%
Gen Z (ages 18 - 27)	78%	69%	86%
Millennial (ages 28 - 42)	79%	73%	86%
Generation X (ages 43 - 57)	71%	60%	78%
Baby Boomer and Silent Generation (ages 58+)	54%	46%	64%

Source: Zillow Research 4/11/2022

Given changing demographics and housing and neighborhood preferences, it is clear that existing housing stock does not meet current needs. While Labor, Lumber, and Land are less directly in our control, as local leaders, we can have an impact on Law. Zoning policy can and should be updated to reflect the housing needs of today and tomorrow.⁴⁵

WHAT IS MISSING MIDDLE HOUSING?

Missing middle housing refers to housing types such as accessory dwelling units (ADUs), duplexes (two-family), triplexes (three-family), fourplexes/quadplexes (four-family), townhouses, and small apartment buildings. It is the range of housing types found between a detached single-family house and a large multi-family complex. These housing types are generally considered to be moderate density. In most communities, these housing types have been banned from zone districts that only allow detached single-family homes. Traditional patterns of development have these housing types woven into residential neighborhoods. Some refer to missing middle housing types as "gentle density" because they can work well in existing contexts and blend nicely with new construction.

See the [Missing Middle Housing](#) tool for more information.



ECONOMIC CONSEQUENCES

If Michigan communities are to be adaptable in a world where change is the only constant, then good stewardship is necessary. Towns reliant on a single employer, such as the mining or automotive industry, have seen their fates boom and bust in tandem with the volatility of the market for decades. Resilient communities have diversified their economies to better weather economic storms. We must do the same with our housing stock.

A lack of housing types and sizes that are aligned with today's households is placing a financial burden on Michigan households. Unit size matters because rent and sales prices are typically determined on a per square foot basis. It is no surprise, then, that 48.5% of Michigan households spend 30% or more of their income on rent.⁴⁶ Households are considered "cost burdened" at this threshold. HUD defines cost-burdened families as those "who pay more than 30 percent of their income for housing" and "may have difficulty affording necessities such as food, clothing, transportation, and medical care." Twenty-three percent of homeowners with a mortgage fell into this same category. As detailed earlier, Michigan tax law works to benefit homeowners, so this lower rate is to be expected.

A diverse housing stock in a range of price points at the right places can meet the needs of a wide array of households and assist in stabilizing a community's tax base. When our housing supply is constrained and there are high housing prices it limits the movement of workers. The Home Builders Association of Michigan found that hospitality workers in some Northern Michigan towns face long commutes (averaging 45 minutes each way in one Northwest Michigan community) because they can't find attainable housing near their jobs.⁴⁷ Households then have even less room in their budget for other necessities due to the burden of transportation costs. Economic growth requires a new approach that provides more choices than are

Short's Brewing Co. purchases Bellaire Inn in response to northern Michigan housing crisis

The northern Michigan brewery will use the 26-unit motel to provide temporary, transitional housing for summer workers who can't find a place to live



Brian Manzullo
Detroit Free Press

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currently available. Potential employees can't relocate to where the jobs are because housing costs have outpaced local incomes. Communities reliant upon service workers have found that local businesses are unable to open or must have reduced hours because housing prices are beyond what employees can afford.

*"We've missed out on (non-local) candidates because they can't find a place to live, and we've had an employees move out of state because of the lack of affordable, workforce housing. We're working to get some housing projects shovel ready, but that doesn't help us out this season," said Scott Newman-Bale, the CEO of Short's Brewing.*⁴⁸

A lack of housing has not only adversely affected northern Michigan. The National Association of Realtors study found that for every two new jobs created in the Detroit-Warren-Dearborn and Grand Rapids-Wyoming metropolitan areas, only one new housing permit was issued between 2016-2019.⁴⁹ Demand has resulted in median listing prices climbing nearly 20% from March 2021 to April 2022 in those markets.⁵⁰ Throughout the United States, the cost of restrictive land use regulation is estimated to result in at least a 2% loss in overall gross domestic product (GDP).^{51 52}

Ultimately, we are constraining the potential for businesses to grow, reducing the workforce's upward mobility, and limiting access to new job opportunities. If we were to align labor with location, shorter commuting distances and/or multi-modal options, a variety of housing types, and housing availability at all price points, then it would be easier for workers, businesses, and local economies to thrive.

This housing crisis must be regarded as an issue that all levels of government need to work together to solve. Every local leader should be asking what role their community plays in the larger regional ecosystem. Employees and employers don't care about jurisdictional boundaries. The workforce simply needs to live within a reasonable commuting distance. Thinking another community will shoulder the entire burden of change is unrealistic and will not solve the need for more housing.

In addition, followers of Strong Towns' Charles "Chuck" Marohn will be familiar with the legacy infrastructure costs that await us because of mandated low-density development patterns in suburban and ex-urban communities. Rules such as minimum lot sizes and maximum densities have created places that are, or will be, struggling to maintain their streets and pipes, schools and parks, and other community assets. There simply aren't enough taxes generated by large lots and single-family homes over time to support the costly burden of infrastructure.

SOCIAL CONSEQUENCES

The reality is that during various phases of a person's life they will have different housing needs. Young adults may be on their own before finding a partner. A married couple may decide to divorce and shared income must now be split into two households. A widower may no longer wish to stay in the home where their family lived. Whatever the context and changing circumstance of a household, many communities have adopted zoning that requires three-fourths of all housing to be the same. The lack of a variety of housing types and price points reduces housing options across all incomes, ages, and household sizes.

Exclusionary zoning methods have been designed to keep out different housing types, people of a lower socioeconomic status, and/or renters because homeowners fear their property values will be negatively affected (despite a lack of empirical evidence to support these fears). Empathy is discarded even though shelter is a basic human need - alongside air, water, food, and sleep.

Nearly a century ago, local zoning was introduced to improve living conditions for the working poor and keep away the noxious effects of industry. Today's codes frequently place less "desirable" housing types, such as apartment buildings, next to major thoroughfares or heavy commercial uses. The working poor have been relegated to the places that zoning was supposed to protect them from.

Past practices of redlining, racial discrimination, predatory lending, and steering away people from certain neighborhoods has created a significant wealth gap between white households and other racial/ethnic minorities. Blacks have a homeownership rate of 46.4% compared to 75.8% of whites. In 2016, white families posted the highest median family wealth at \$171,000. Black families, in contrast, had a median family wealth of \$17,600.⁵³ Given that a home is one of the largest personal assets a person will hold, it is not surprising, then, that such a significant wealth gap exists.

Communities with greater income segregation between neighborhoods typically have more restrictive development regulations. Limiting where the lower-income families can live limits life opportunities in schooling, employment, health, and support services.⁵⁴ The consequences of limiting housing choices can be particularly harmful to children, affecting their physical and mental health,

As was mentioned in the Introduction, there is a growing divide between people and places that is exacerbating poverty and seriously affecting health outcomes. This, in turn, is having a detrimental effect on our economy and peoples' lives. Creating places where some people, but not everyone, can fully participate as a member of a community impairs the ability for individuals and families to find success and comfort.

The consequences of our ambivalence to solve the housing problem include increased costs to provide social services, housing assistance, and medical insurance write-offs, as well as lagging active participation in the workforce, and other externalities. If we are to have a strong and stable communities, then all residents need to be able to live in places that optimize their potential.



Richard Rothstein's book *The Color of Law: A Forgotten History of How Our Government Segregated America* clearly explains how public policy segregated America, and the cumulative effect of this policy on people of color. The Michigan Association of Planning's Equity Policy provides detail on MAP's position to advance equity. The American Planning Association's Equity in Zoning Policy Guide (2022) is another excellent resource on what can be done to modify zoning to produce more equitable outcomes.

Call to Action

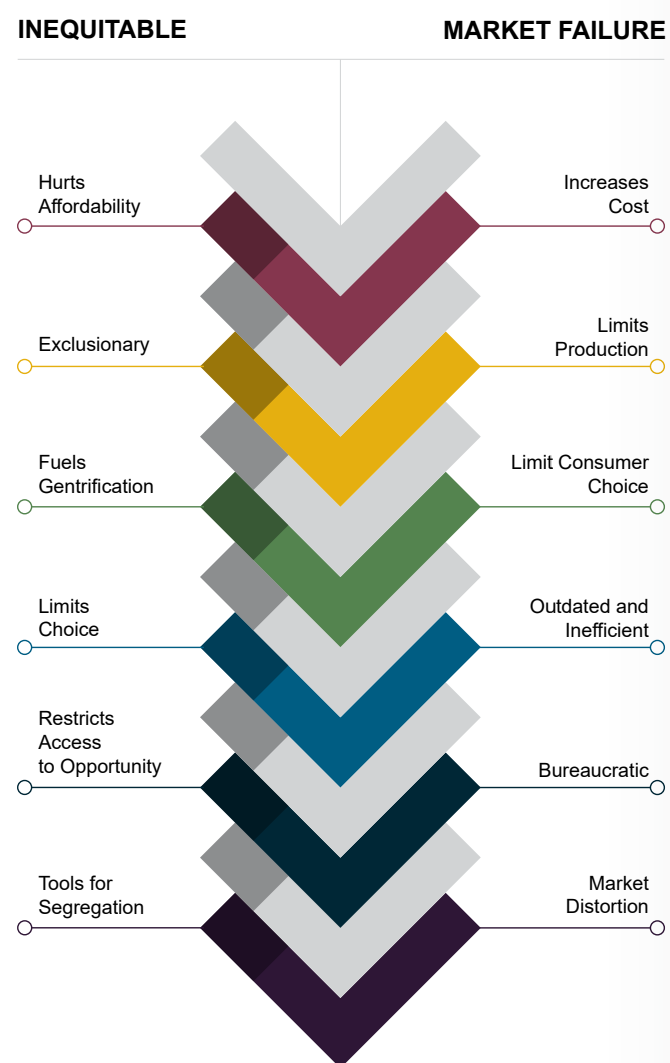
Zoning is local...for now. Let's return to the Labor, Lumber, Land, and Laws discussion from earlier. It was stated that zoning and related development approval processes are the greatest opportunities where local government can significantly influence housing supply and affordability. Think about this. Local officials cannot change the cost of wages and building materials, manage supply chains, commandeer control of private property, or run contrary to Constitutional amendments. Officials can amend a zoning ordinance.

Zoning determines where housing will be built, what types of units are allowed, how the housing might look, and when it might be approved. Language can be removed or added to allow a range of housing types. Provisions can be modified to make conversions, infill, and redevelopment possible. Approval paths can be made easier and less costly. This is why a call to action has been made for zoning reform.

The housing shortage is affecting affordability, community livability, economic growth and prosperity, quality of life, and opportunities for people to change their situation in life. Arguments have been made through different lenses that zoning is perpetuating inequality and creating market failure.

The challenge, then, is how to go about the work of changing zoning because it has become viewed as a tool to restrict, rather than facilitate, change in many places. Some have argued elsewhere that preempting local zoning authority is the most expeditious way to solve the problem given that the magnitude of the issue is of statewide importance.⁵⁵ Federal court decisions have weighed in from time to time, acknowledging the larger effect of local decision-making on a larger region.⁵⁶

The Obama, Trump, and Biden administrations have held numerous briefings and published reports regarding



Arguments to reform zoning are being made from both sides of the aisle. Democrats and Republicans may have different reasons to support reform, but are finding common ground. *Source: APA Jason Jordan.*

the need for zoning reform. The Build Back Better Framework, most recently proposed by the Biden Administration, recommended a federal competitive grant program to jurisdictions willing to undertake zoning reform. Although unable to directly influence local communities, the fact that this continues to be discussed by different administrations should be something to pay attention to.

Frustrated that local jurisdictions have not done more to address housing needs, state lawmakers on both sides of the aisle, from Connecticut to California, have begun to adopt pre-emption laws that require accommodations for various housing types. Other states have passed legislation as well, including Oregon, Maryland, Virginia, Nebraska, Vermont, Massachusetts, and Washington.⁵⁷ Still other states, such as New Hampshire, are in the process of changing state law.

In Michigan, land use and zoning decisions are made at the local level unless power is ceded to a county. With 1,800 units of local government in Michigan, direct land-use decision making is substantially fragmented. Michigan's culture has been strongly oriented towards property rights and local control. Keeping zoning

Housing is Regional

Housing supply is a regional issue. Housing is part of a larger ecosystem of schools, shopping centers, churches, employment centers, and other built assets that comprise our daily lives. Solutions cannot be left for one community to solve alone - the demand and need for housing does not stop at a jurisdictional boundary line. Regional initiatives have been launched to support multi-county housing needs. For example, Housing North serves a ten-county region in North West Michigan, and Housing Next serves both Kent and Ottawa counties in West Michigan. Strong, active coordination between communities to address housing supply could allow for alignment of zoning provisions to improve predictability for the development community.

local allows decision-makers to identify potential negative impacts to neighboring property owners and determine appropriate mitigation measures.

Local elected officials, planning commissioners, staff, and others involved in local decision-making have an obligation to recognize the consequences that zoning regulations have wrought and to work with citizens to understand the importance and benefits of changing long-standing approaches. Increasing awareness of the issue, and educating the public about how places and people in Michigan are changing over time are important first steps. To that end, this section includes recommendations for communicating about housing and zoning reform and the data that can assist to support the work ahead.

HOW TO TALK ABOUT HOUSING

Housing is a complicated topic. It is important to understand how to frame the discussion around housing. This Toolkit seeks to demonstrate to local units that state pre-emption can be avoided if we work together to find practical solutions to the problem of housing supply. Political science research shows that the majority of people will support changes to zoning for more housing when it is posed as a general policy question. The issue becomes when a specific project is proposed nearby to where they live. For this reason, ensuring that housing is addressed in a community's comprehensive plan is critical.

The comprehensive plan is the policy vehicle that sets the direction for how a community should change and grow. Attempting to tackle the housing issue on a project-by-project basis will almost always be painful. The policy framework should be established beforehand to work alongside the regulatory approaches outlined in this Toolkit. Ideally, the community might describe what housing types would satisfy community needs and identify desired contexts and approval paths so that the vision can be codified into the zoning ordinance for implementation.

To do this, the public must understand the “why” of the need for change to housing policies. This is particularly important since many current ordinances “protect” single-family detached neighborhoods from change. Opposition can be a significant roadblock to building places that encourage a broad tapestry of housing types, price points, and people. Communities with low-density development patterns that are dominated by large-lot single-family homes are stereotypical locations of opposition, but downtown areas seeing an influx of gentrification and rural areas may oppose new development in the same way – voicing displacement and the loss of community character as concerns.

There have been several recent studies and surveys to understand the most effective ways to address public opinion when framing housing policy discussions. Depending upon the audience, the three

subject areas of fairness, economic growth, and property rights have been found to resonate the most. Notably, what is not as effective is an emphasis on affordability and racial justice.

Dr. Jason Sorens, Director of The Center for Ethics in Society at Saint Anselm College, and his colleague Mike Matheis conducted a survey of New Hampshire residents.⁵⁸ The figure below shows the average (mean) score on an index of pro-housing attitudes for respondents who received a control message and persuasive messages focused on how local zoning regulations:

- prevent working-class families from getting their kids into good schools (Fairness);
- hurt job growth and gross domestic product (Economic Expertise); and
- violate landowners’ property rights (Property Rights).

Mean Pro-Housing Attitudes by Experimental Message in New Hampshire

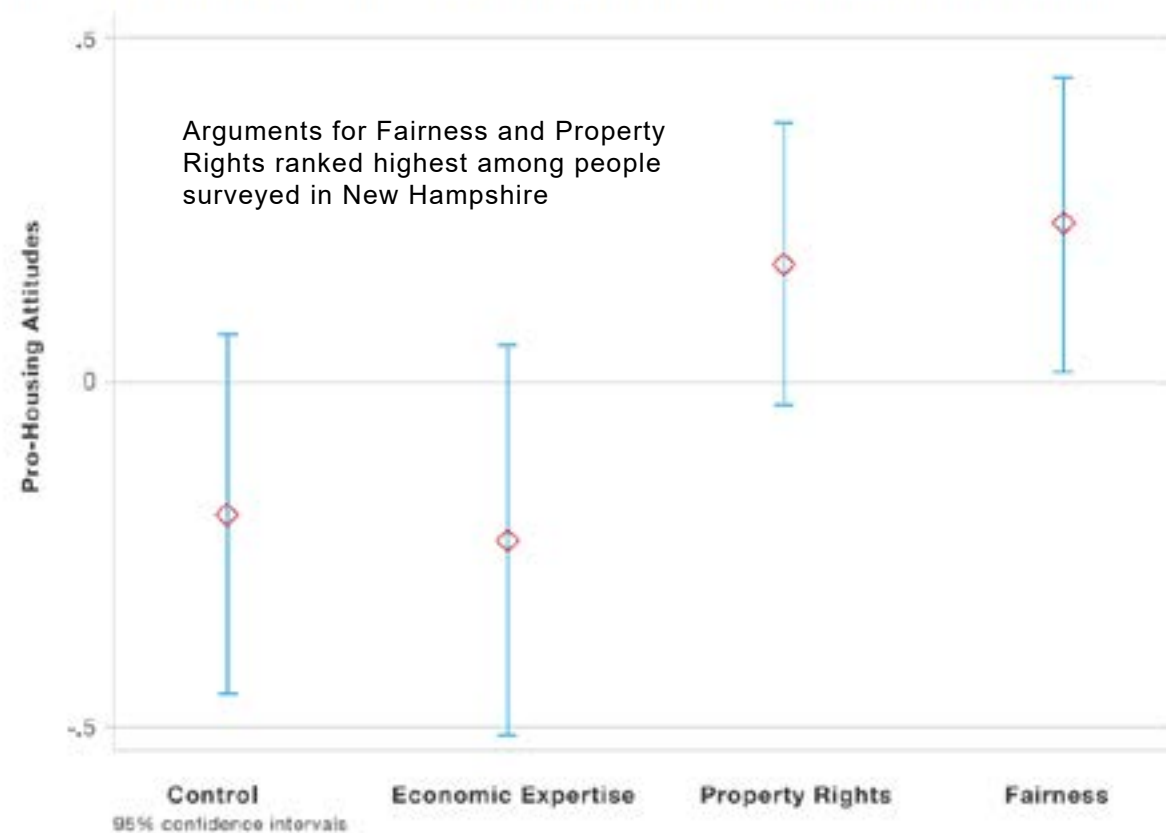


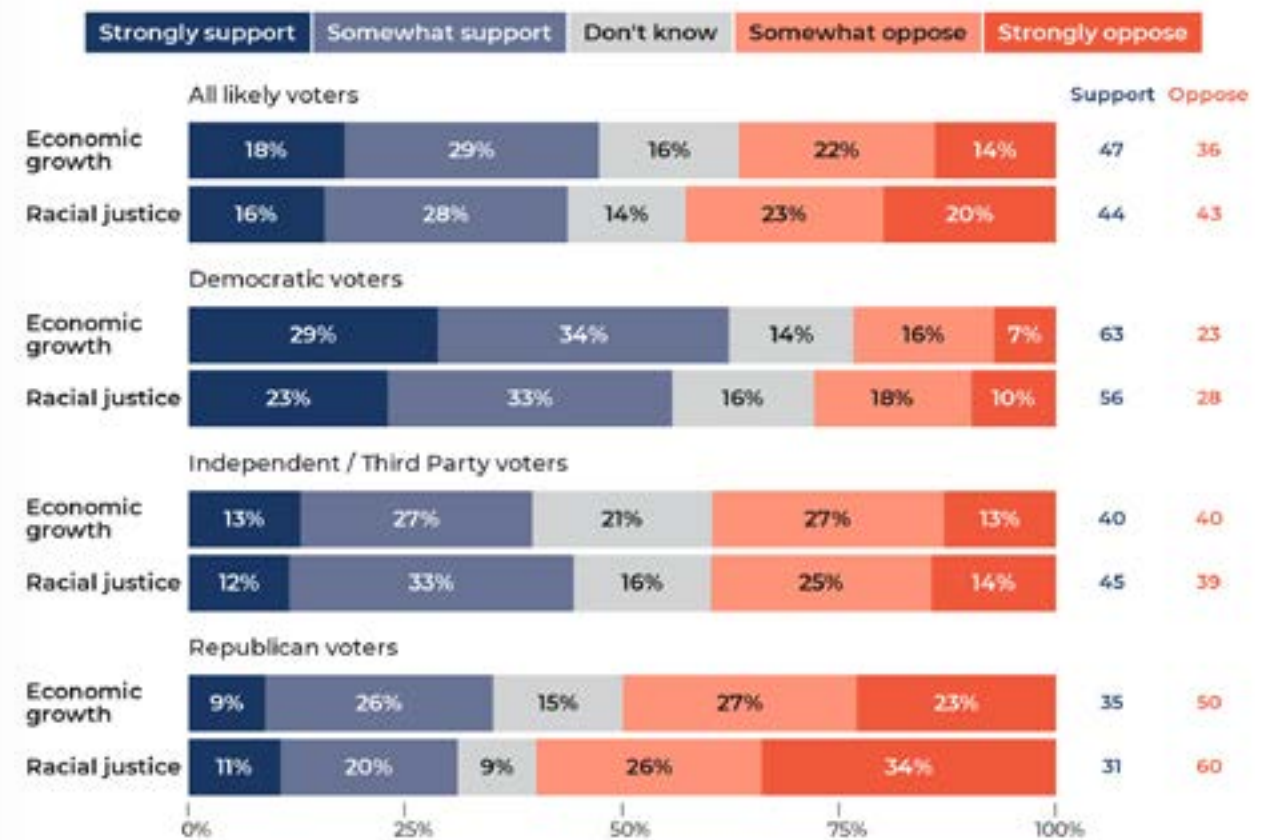
Image from *Changing Minds on Restrictive Zoning*

Compared with the control message, Property Rights and Fairness had strong, positive persuasive effects on New Hampshire adults, whereas Economic Expertise had no effect. The effect of Property Rights seemed to be strongest for moderates and independents, while the effect of Fairness seemed to be strongest for left-liberals and Democrats. Sorens notes that homeownership rates, underlying community culture, and views about economic development can influence attitudes in other places.

A Vox and Data for Progress poll (below) weighed an economic growth message against one focused on supporting racial justice for multi-family home construction⁵⁹. The economic growth message rated net 10 percentage points higher than the racial justice message. The largest difference in increased opposition based on racial justice was in Republicans, but Democrats also preferred the economic growth message. Independent/Third party voters only had a 1% spread in strong support and strong opposition between the two messages.

Voters Find Economic Arguments For Multi-Family Home Construction More Persuasive

Half of the likely voters were shown this message: “Supporters of this say that it’s a matter of racial justice. Single-family zoning requirements lock in America’s system of racial segregation, blocking Black Americans from pursuing economic opportunity and the American dream of home ownership.” The other half were shown this message: “Supporters of this say that this will drive economic growth as more people will be able to move to high-opportunity regions with good jobs and will allow more Americans the opportunity to get affordable housing of their own, making it easier to start families.”



Feb 19 to Feb 22, 2021, survey of 1555 likely voters

FAIRNESS

Messaging focused on fairness is one of the more effective ways to change minds. Research by the FrameWorks Institute, a Washington D.C.-based social science research group, has found one approach for housing discussions is to focus on how zoning limits social mobility and how this affects the well-being of people and the communities they live in⁶⁰.

Thinking of housing as something that provides security and stability for people instead of as an investment to be profited from is a significant paradigm shift. Where neighbors are focused on property values, an effort can be made to refocus the discussion around how housing meets a basic human need.

A place to call home is foundational to how people build their lives, and communities are really rooted in the people who live there. Shouldn't everyone have the same opportunity to thrive in your community?

The idea of fairness applies not only to the opportunities provided to individuals, but across neighborhoods and communities as well. For example, the 2021 New Hampshire survey looked at attitudes towards two propositions: a proposal that multifamily housing should be built only in cities, while suburbs and rural areas should be mostly single-family housing; and a legislative proposal that would authorize statewide the construction of duplexes, triplexes, and fourplexes on lots served by municipal water and sewer, and where residential development is allowed. Respondents were opposed nearly 2-to-1 to banning apartments, duplexes, and townhouses from suburbs and rural areas, and they were evenly split on the legislative proposal to legalize fourplexes statewide in sewer-served areas. Thinking about how a regional issue is solved across communities using a fairness lens can be helpful.

ECONOMIC GROWTH

The consequences on economic growth were highlighted with the Short's Brewing Company example in the preceding section. Maintaining a sense of community by providing opportunities for the people who work in local businesses, schools, hospitals, police and fire departments, coffee shops, and other places to also be able to live there can build support for attainably priced workforce housing. Ensuring that young people can return and reside in the community they grew up in can also be effective. Connecting these examples with personal stories makes the narrative relatable and can build empathy.

The housing shortage is tied to cost-of-living issues, problems with workforce recruitment and retention, and affordability.

Explaining the economic ecosystem and the effect housing has on it can be powerful when addressed by business owners and Chambers of Commerce.



PROPERTY RIGHTS

There is a reason why the short-term rental (STR) industry has attempted to explain why using your house as a mini-hotel should be your right. Property rights messaging works well for individuals that do not like government decision-making. This messaging would be effective in many areas of Michigan where residents are cost-sensitive or are impatient with bureaucracy.

Explaining that zoning reform can allow more housing types and/or housing units on a person's land, provide more housing choice, and how the easing of restrictions will allow the market to determine and deliver in-demand housing can resonate for people who want to see more done with less rules.

Another facet of the "rights" discussion is personal choice and how regulations that allow only one housing type in the majority of a community restricts the ability of a person to select from multiple places to live.



*Housing costs = rent + utilities or mortgage + taxes + utilities. Median annual salaries, according to the Bureau of Labor Statistics; Average rent figures from RentJungle.com, for August 2020.

Courtesy of the U of M Edward Ginsberg Center

BUILDING UNDERSTANDING

Understanding the lived experiences, perceptions, and fears of those who may be in opposition to a housing development or zoning change is important to determine the correct talking points to use. For example, although evidence is lacking that higher density causes a decline in property values, there may be anecdotal examples that create the appearance of a correlation. Older residents may believe that additional density resulted in urban blight and crime because of their lived experiences during the 1960s. The decay of urban centers, however, was the result of policy decisions and banking practices that subsidized new suburban construction and disincentivized reinvestment in existing areas.

When beginning conversations about change, it's important to first understand the other person's viewpoint. One helpful exercise that can be conducted in small, facilitated groups or with online surveys is the *Three Whys* exercise. First, ask participants to list the three things they like most about their neighborhood or community. Next, ask each participant to explain why the first item on their list is essential. Then, go a bit deeper and ask why that is important. Then, if possible, ask why one more time with curiosity. Here's an example:

- **What types of housing should be allowed in your neighborhood?**
Only single-family homes on large lots.
- **Why is this important to me?**
Single-family homes support families and preserve property values.
- **Why is this important to me?**
Families help to keep local schools strong, and my home is my largest investment.
- **Why is this important to me?**
The local school district is the most important social institution in the community, and I want to feel secure in my retirement.

In this example, you may want to then pull data and information to discuss what future enrollment numbers might look like and whether incoming families can afford to live within the school district.

You can begin to unpack some priorities and concerns that are probably fairly universal among many individuals and families using this exercise. The first answer doesn't matter nearly as much as the final answer. How might we ensure strong social institutions and financial security for existing residents regardless of the permitted housing types? This is a very different question than "Should we preserve single-family only neighborhoods?"

MESSAGES

Your message will depend on your audience, and there are various audiences to consider: neighbors, business leaders, politicians, school administrators, landowners, developers, and others have a role to play in increasing housing supply. You may hear that housing is an issue of individual concern, believing personal circumstances or choices are to blame if someone is unhoused or unable to afford a home in a certain community. The reality is that a lack of housing affects everyone. Based on the work of the FrameWorks Institute, below are examples of messages that may resonate with your community.^{61 62}

Fairness

- When children live in low-quality housing, they are less likely to have access to what they need to do well in school (e.g., reliable Wi-Fi in the home, good transportation options from where they live, space to do homework) and more likely to experience health problems, all of which lead to poor educational outcomes. It shouldn't be a reality that the zip code you live in will determine your life's trajectory.
- It's more difficult to care for one's health if housing costs impede the ability to pay doctor bills, join sports leagues, or eat well, which can lead to chronic disease

and other health problems. Having to "drive until you qualify" due to the cost of housing further takes precious time that could be focused on building a healthy lifestyle or caring for family.



- We need to make sure that good, affordable homes and other critical resources are available not only in a few desirable neighborhoods but in all communities, large and small, rural and urban and suburban. If we are guided by a commitment to fairness across places, we will arrive at the kinds of solutions that we will all want to live with.
- The ideal of justice for all means that people should have an equal opportunity to make the most of their potential, no matter where they come from. When all our communities have good homes, good schools, dependable public transportation, and strong businesses, it provides all of us with a fair shot at success, no matter where we live.
- The lack of access to affordable, quality housing can compound existing societal inequalities, including systemic discrimination and unequal access to housing for people living in poverty, homeless, families, younger people, LGBTQ individuals, persons with disabilities, and persons of color.



Economic Growth

- Communities within a region need resources—such as the availability of good homes and an available workforce—to prosper. Michigan communities have a collective interest to see everyone housed and to live in a place that they can afford for their budget; otherwise, we are hampering our collective prosperity.



- As a business owner, wouldn't you like to be able to start a new business or add an office or location without spending as much time at City/Township/Village Hall in a public hearing?
- Through a lack of housing, employment and education opportunities can be stymied, as well as the economic strength of Michigan communities. As rents rise but wages stay the same, workers that we all depend on are priced out. Tourist-based businesses experience labor shortages due to a lack of available housing that workers can afford. The lack of labor has prevented businesses from opening and forced others to close.
- An undersupply of housing increases the cost of renting and homeownership. Rising housing costs can increase poverty and lead to homelessness. There is a societal cost to individuals being unhoused, including a reduction in employment stability and a reliance on emergency health care services.

- A lack of housing types restricts older individuals to their single-family homes, rather than enabling them to downsize or move to a home with fewer stairs or less maintenance. If there were more housing choices then we could simultaneously make larger homes available for the next generation of families.
- If escalating housing prices affect the ability of young families to afford to live in a community, then a school district may see the number of entering kindergartners decline along with per-pupil funding. Schools are often points of pride and identity for communities. Reduced funding may result in cuts to programs and services because of fewer children.⁶⁴
- Low-quality homes can have significant consequences for people's physical and mental health, increasing the risk of respiratory illnesses, infectious diseases, and cancer (due to mold, dampness, and air pollution, for example) and the risk of mental health issues such as anxiety and depression. This can result in absenteeism in work and school. We can improve health outcomes by providing quality housing choices.
- When housing costs are high, middle-income earners often spend more time commuting from home to work because they can't afford to live near a job center. Lower housing costs and a greater variety of choices ensure that people can live where they work, which means less traffic and cleaner air for everyone.



Property Rights

- Allowing for more flexibility with non-conformities gives property owners more freedom.
- Commercial property developers are rarely asked who the tenants will be, where their money comes from to pay their rent, or if the property will be properly maintained, yet these same questions are commonly posed to residential builders. When housing projects are judged by who will live there rather than what will be built, biased decisions are more likely to be made that will ultimately affect the amount, location, and price points of the new development.



- The Board/Council/Commission is a legislative body. Approval of the site plan of a permitted use is an administrative function. It is more appropriate and legally defensible for the planning commission or planning staff to do that review. This frees up legislators to spend more time thinking strategically about where our community is going rather than worrying about what tree is shown on the landscape plan.
- It's an inefficient use of taxpayer dollars to have the Board/Council/Commission review a site plan on a project that has already had a review by the community's planner/engineer/attorney to make sure that all of the requirements have been met. The paid professionals can do that work and my elected officials can focus on other things.

DATA THAT CAN HELP TELL THE STORY

One of the aims of this Toolkit is to equip local planners, managers, elected and appointed officials, and others involved in zoning and land use decision-making with the tools needed to have productive discussions with their communities. There are many variables to consider when talking about housing; particularly useful is data about households, housing types, and local zoning. Other data may also be helpful in making a case to expand housing choice and supply in your community. The following suggested data is not exhaustive, nor is it necessary to collect all of it before beginning a discussion about housing.

Demographic, economic, and housing characteristics data can be found on the US Census (data.census.gov) website. Another great source is Local Housing Solutions (localhousingsolutions.org) which has a Housing Needs Assessment tool and helpful tips on how to use data.

Data collection is always a good intern project, but analysis should be done by an individual familiar with the community to ensure the data is accurately portrayed. Ideally, historical data provides a sense of how things have changed over time and may assist in describing why things are different today than in the past. Census data at the tract level, or block group where available, is particularly useful to understand neighborhoods. Economic data may only be available at the Metropolitan Statistical Area (MSA). Mapping software such as GIS can be helpful to see patterns in a community.



Social, Economic, and Housing Characteristics (Census)

Households

- Average household size
- Number and percent of households with married/cohabitating households, householders living alone, households with persons under 18 and 65 and over
- Disability status of noninstitutionalized population total and 65 years and over

Economic Characteristics

- Occupation, particularly service occupations
- Median household and median family incomes
- Percentage below the poverty level
- Commuting to work

Housing Characteristics

- Total housing units and occupancy
- Total units in structure, and a grouping that identifies 1-unit detached, missing middle housing types, and larger multi-family developments
- Number of bedrooms in housing units (recommend combining no bedroom and 1 bedroom, some combine 2 bedroom as well to distinguish family housing)
- Housing tenure by owner and renter
- Selected monthly costs as percent of income for homes with a mortgage and renters

Local Land Use and Zoning

Development (Planning Department)

- Land area dedicated to each zone district
- Housing type(s) allowed in each zone district
- Land area available for each housing type
- Minimum lot area by zone district and total allowable housing units for that district by housing type (build out)
- Select other relevant dimensional requirements to explore such as maximum density, minimum housing unit size, and building height.

Housing (Various)

- Assessed value over time (Assessor)
- Average sale prices over time (Assessor)
- Principal Residence Exemptions (Assessor)
- Amount of homes in local inventory (Realtors)
- Time of inventory on market (Realtors)
- Price range of homes for purchase (Realtors)
- Price range of units to rent (Property managers or websites)
- Number of nuisance and housing complaints (Enforcement)

Other Considerations

Approval Processes (Planning Department)

- Diagram the local development approval process on a timeline or flowchart
- Types of projects being requested
- Percent of projects that receive approval from staff, Planning Commission, Zoning Board of Appeals, and/or the elected body.
- Project success/fail rate
- Review of standard objections from neighbors

Community Amenities ([walkscore.com](https://www.walkscore.com), Parks and Recreation Plan)

- WalkScore ®
- Presence (or absence) of sidewalks and trails
- Walking distance to commercial districts
- Location of schools and parks

School Pipeline (School District/s)

- Number of students in senior graduating class and kindergarten class
- Enrollment trends over time

Jobs (U.S. Bureau of Labor Statistics)

- Job growth and in-migration
- Wages
- Typical workforce wages
- Labor rates (Michigan Works)
- Employer feedback on workforce availability

Asset Management

- Miles of local streets in good/fair/poor condition
- Projected costs to maintain infrastructure in good/fair condition
- Tax revenue generated by land use and lot size
- Average age of water and sewer infrastructure

Once the data is collected, think about the various combinations that can be put together to tell a story about the people who live in your community and the housing that is available for them to live in. Be curious to see what you can learn! For example:

- Is the median household income low, average home prices seven figures, and the number of incoming kindergarteners declining?
- Are there a lot of householders living alone and all but a few housing units have 4 or more bedrooms?
- Do the neighborhoods with a high WalkScore have homes that are selling like hot cakes and renters are being priced out?
- Can the current pattern of development support the long-term liability of public infrastructure?

Additional Data Resources

The Michigan State Housing Development Authority (MSHDA) published a statewide housing needs assessment in 2019.⁶⁵ The needs assessment presents county-level data related to population, household, and job growth; current housing supply characteristics including housing supply by type and tenure as well as costs and affordability.

In addition, your local or county Community Development office should have a similar document for the purposes of Community Development Block Grant funding that will describe existing housing conditions and future needs.



THE TOOLKIT

HOW TO USE THE TOOLKIT

In this section, we outline fifteen tools to expand housing supply and choice. The tools are separated into three categories: Zone Districts, Form and Context, and Processes. Each tool can stand on its own, but often works even more effectively in concert with another tool or two. For each category, an explanation of the tool types have been provided. Additional zoning tools and approaches may follow in future work by the Michigan Association of Planning.

These tools were selected because of their applicability and ability to impact every community that has a zoning ordinance. Advisory Committee feedback also contributed to how the tools were addressed. For example, a more extensive explanation about missing middle housing was discarded due to the extensive amount of resources that are already available.

Each tool includes an explanation of what it is, how it is used, and how it affects housing. Case studies from across the state and country highlight how these tools work in action. Language from other master plans show how the tool can be justified in a community's vision and goals. In the zoning

ordinance examples, excerpts are shared of how ordinance language might be structured in your regulations. Lastly, we present possible obstacles to implementation along with strategies for how to combat them, and technical resources for further reading and review.

Where communities are seeking additional tools to assist with reducing the cost of new construction or preserving existing affordable housing, there are a number of economic development incentives and resources available. When paired with effective zoning reform, these incentives can make a big difference for households who are otherwise priced out of the market.

15 TOOLS TO REFORM ZONING		
Zone Districts	Form and Context	Processes
Collapse Zone Districts	Reduce Minimum Lot Width and Area	Eliminate or Reduce Elected Body Approval
Rezone for Mixed-Use / Multi-family in Commercial Districts	Reduce or Eliminate Minimum Dwelling Unit Size	Expand Administrative Review
Expand Allowable Uses	Reduce or Eliminate Minimum Parking Requirements	Pre-approved Plans
Performance Standards for Uses	Missing Middle Housing (Including ADUs)	More Flexible Approach to Nonconformities
	Density / Height Bonuses	Police Power Ordinances for Nuisance

The Comprehensive Plan

A comprehensive (master) plan describes the desired "future state" of a community and establishes the type, character, and density of development that is appropriate in different areas, including where resources should be directed to revitalize or reuse already developed lands. It also provides a framework for identifying important agricultural, natural, and cultural resources to be protected, and for determining what public investments in streets and other infrastructure will be needed.

Establishing a narrative that embraces housing supply and choice with a greater variety of housing types, lot sizes, and other Toolkit recommendations begins with your community's vision to satisfy current and future housing needs. The mismatch between households and housing stock can be adjusted with policy guidance provided by the comprehensive plan.

It is important that as your plan is created and updated, the public understands the ramifications of keeping the status quo. It is much easier and more cost effective to establish a proactive planning framework that clearly states housing goals for a community so that change over time can be facilitated in a way that is acceptable, or at least tolerable, to the public rather than being forced to react to labor shortages, homelessness, rapid price escalations, and other challenges that government is much less equipped to respond to.

A vision for housing should express how housing is really a system. Various segments are dependent upon one another, so decision-making should focus on overall community goals rather than on a project by project basis. Angst and debate will routinely manifest itself in public hearings in the absence of a collective vision that drives new practices and processes. Piecemeal decisions (the antithesis of long-range planning) are not a useful nor effective strategy to address the housing crisis.

Comprehensive (Master) Plan

- Michigan Planning Enabling P.A.33 of 2008
- The plan, along with the Future Land Use Map, is a powerful expression of a community's aspirations and intentions for the future.
- Once it is adopted, it guides the Planning Commission and Township Board/City Commission/Council in land use decisions. It is the "guide for growth."

Zoning Ordinance

- Michigan Zoning Enabling P.A. 110 of 2006
- Zoning may be simply described as one of the means that local government uses to regulate land use and development.
- Zoning typically regulates the height, size and location of structures, and other requirements needed to gain development approval and is intended to insure that uses are compatible with one another.
- It implements the comprehensive plan.

Relationship Between the Two

- The comprehensive plan is a statement of policy. The zoning ordinance is the law that works to implement that policy.
- The comprehensive plan refers to future land use. The zoning ordinance affects current land use, but is working towards implementing the vision of the comprehensive plan.
- The comprehensive plan describes a vision that could be 10-20 years into the future. It is not always immediately translated into zoning but is implemented over a period of time. The zoning ordinance shows land as it is intended to be used today.

Zone Districts

Designated zone districts are what use-based ordinances are rooted in. Land in the community is divided into types of zoning districts – residential, industrial, commercial, etc. Based upon the district, certain uses are allowed “by right” while others require additional review by a Planning Commission via the special land use process. Unlisted uses are generally not permitted, and some communities include a list of prohibited uses. Rethinking how zone districts are formulated provides a significant opportunity to meet the diverse needs of Michigan communities and make ordinances more practical and user-friendly.

Somewhere along the way, zone districts became unwieldy. C1A, C1B, R1 through R4, R2A, B, and C, I, OS, and PUD – it can start to look like an alphabet soup to the untrained eye. While neighborhoods and districts have variation, there are other ways to use zone districts to regulate that complexity. The district itself does not need to do the heavy lifting. Instead, more refined zoning provisions related to the intensity of uses can result in better outcomes for everyone. The tools that follow in this section aim to accomplish the following:

- Make your zoning ordinance more user-friendly – for residents, developers, staff, and elected/appointed officials.
- Expand allowable uses and integrate different categories of uses for greater housing choice and affordability.
- Ensure complementary development.

Your zoning ordinance may already contain pieces of modified zone districts, multiple housing types in a district, and/or uses that have performance standards. Refinements in the structure and scope of the code will allow your zoning ordinance to better reflect the current demographic reality of Michigan households, allow for the market to produce housing that meets the needs and desires of existing and future residents, and help the bottom line of local governments, developers, and household budgets.



Overhauling zoning is not a silver bullet solution to our housing crisis. It is, however, a significant element that allows for a greater variety of housing choices and price points in the marketplace. Local action via zoning is needed if communities wish to choose how to meet the needs of all present and future residents.

Community conversations can be an effective way to spur change. As is mentioned in the [How to Talk about Housing](#) section, discussions need to be relatable. While data can be useful in framing the issue, a lot of people do not automatically connect with numbers and pie charts. They do, however, respond to stories and personal experiences. Search out those stories and look for opportunities to weave in facts that can help inform the discussion.

Collapse Zone Districts

WHAT IT IS

Traditional ordinances have zone districts that oftentimes build on one another with small nuances in uses. For example, a community might have an R-1 zone district for single-family dwelling units, an R-2 zone district that allows single-family and two-family units, and an R-3 zone district that allows single-family, two-family and up to 4-family units. Combining like districts can reduce the overall number of districts, begin to eliminate exclusionary practices, and increase opportunities for new investment. Instead of embedding dimensional context into the zone district, you can achieve appropriate siting of uses through use and design standards (described in the [Performance Standards for Uses](#) and [Form and Site Standards](#)).



Reimagine Plainfield Future Land Use Map

Master Plan Case Study: Plainfield Township - Reimagine Plainfield

In 2021, Plainfield Township adopted a comprehensive redevelopment strategy to transform the Township’s key commercial corridor, Plainfield Avenue. The goal was to transform Plainfield Avenue’s low-density, auto-dependent, single-use, single-format development pattern into a dynamic environment that is more vibrant and dense, with more varied uses.

Master Plan Language:

“There are currently six zone districts that regulate development in the Plainfield Corridor...Several of the commercial designations are similar in nature, with distinctions made based on the intensity and impact of the uses. Zoning and development regulations are among the most effective regulatory tools that can be used by the Township to help implement the vision, goals, and design concepts in this Plan. Staff suggestions to support corridor redevelopment include simplifying the number of zone districts and creating more flexibility in design standards and the approval process.” (p. 109).

WHY IT IMPACTS HOUSING

Limiting housing types through narrowly defined zone districts limits personal choice and the ability to build housing that serves the broad needs of a community’s households — seniors, single people living alone, couples, single-parent families, two-parent families, and adults living with other adults. Regulating through a tiered-use approach may have made sense when many families were of a similar size and

composition. But today, it is considered exclusionary because it mandates the construction of only one housing type (detached single-family) on most of the land in a community when most households are no longer two married parents with children. Differentiating zone districts based on housing type has the effect of determining where households can live, oftentimes isolating people of different incomes, ages, and abilities because a various housing types are not available in one place.

Reducing the number of zone districts can also make ordinance administration easier and more user-friendly for the public. Similar to [Rezone for Mixed-Use / Multi-Family in Commercial Districts](#), by simplifying the number of zone districts and expanding allowable uses based upon site-specific criteria, appropriate locations for additional housing units can be accomplished sensitively.

When allowing different housing types in the same zone district, in appropriate circumstances a dimensional variance could be sought rather than a use variance if zoning provisions do not directly align with a particular parcel. This removes another potential barrier to housing supply as a) the burden of proof is less; b) many communities do not allow use variance requests; and c) application fees for dimensional variances are commonly less costly than use variances.

HOW IT IS USED

Start by cataloging the key differences in your residential zone districts. Identify opportunities to combine districts. It is important to note that approval processes could vary between housing types. For example, in a former single-family zone district perhaps new multi-family uses must seek special land use approval with the planning commission. In areas that are currently zoned multiple family, perhaps more housing types are allowed by-right. Engage in a pattern book exercise to catalog development patterns in your community. A pattern book is a set of design guidelines and visual aids that can help you categorize development. There are several examples of pattern books listed in the technical resources below. This will help you

TECHNICAL RESOURCES

- [City of Grand Rapids – Neighborhood Pattern Work Book](#)
- [Redevelopment Ready Communities – Enabling Better Places: Users’ Guide to Zoning Reform](#)

to identify appropriate site- and form-based standards to accompany the collapsed zone districts so that new housing types “fit in” to an existing neighborhood context.

PARADIGM SHIFT

A “one size fits all” approach in narrowly defined zone districts does not meet the needs and preferences of today’s households. For example, aging baby boomers may wish to remain in their neighborhood, but a single-family home is too much to maintain, or the young professional would rather travel than mow the lawn. Overly prescriptive use-based zone districts adversely affect household budgets, family choices, and wealth building opportunities. Approval processes that follow well-defined standards can be used to determine the appropriateness of a housing type in a particular neighborhood location rather than banning it outright.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

This could constitute a major overhaul of your zoning ordinance. It will require public engagement, planning commission and elected body approval, staff and/or consultant capacity, and the participation of key stakeholders. A values discussion can be helpful to frame why existing regulations should change. Residents may think a substantial shift is occurring and feel anxiety about it. Working through financial scenarios about the likelihood of changes in an existing, stable neighborhood may help to ease fears.

Determining how to apply appropriate site- or use-based criteria to regulate the intensity of uses will also require thoughtful consideration.

Zoning Ordinance Case Study: Grand Rapids, MI

In 2007, after several years of study and engagement, the City of Grand Rapids adopted a reformulated zoning ordinance. Central to the reconfiguration was a collapsing of zone districts, from multiple residential and commercial zone districts to a combination of three ‘Neighborhood Classifications’ and a simplified list of ‘Zone Districts.’ Residential zone districts, for example, shrank from seven to two.

The City of Grand Rapids offers a wide variety of housing types in all of its neighborhood zone districts. The Zoning Code also provides incentive-based policies such as minimum lot area reductions in exchange for meeting housing goals such as accessible units and mixed-income housing. For those uses listed as permitted (P) and meet all applicable standards (such as use standards, building design standards, etc.), review is administrative; either as a counter review or through the director review process. Where a use is listed as a Special Land Use (S), then a public hearing with the Planning Commission is required so that neighbors are notified and have an opportunity to provide input.

Zoning Ordinance Language:
 “LDR, Low-Density Residential District. The Low-Density Residential District is intended to create, maintain and promote a variety of housing opportunities for individual households and to maintain the desired physical characteristics of the city’s existing neighborhoods. The density ranges for each Low-Density Residential Zone District varies based upon the Neighborhood Classification in which it is located. Site and building placement regulations, as well as requirements for building elements, take the built environment into consideration as many of the areas that include this Zone District are in existing developed areas.”



Table 5.1.12.G. Zone District Conversions	
1969 Zoning Ordinance	Districts in this Chapter
R-1, R-1A, R-2	LDR
R-3, R-4, R-5	MDR
SR, C-1	NOS
C-2, UBD, TBD, PSC	TBA, C, TOD
C-3	CC, TCC
C-4, I-1, I-2, PID	IT
PUD, PRD	PRD
FP	FP

Rezone for Mixed-Use/ Multi-Family in Commercial Districts

WHAT IT IS

Existing commercial districts and corridors can be great locations to accommodate more housing. Zoning for mixed-use districts along commercial corridors and in villages and downtowns is one of the easiest ways to support higher-density residential uses adjacent to, but outside of, less compact neighborhoods. It is important to note the type of surrounding commercial uses as well as the intensity and speed of vehicular traffic when locating affordable housing to avoid perpetuating past patterns of income segregation.

Many commercial corridors across Michigan are zoned exclusively for commercial land uses along several thousand feet of road frontage, or even several miles of road frontage. However, the most vibrant commercial districts tend

to be concentrated nodes that are just one or two square blocks of ground floor commercial, often with residential or other uses in the upper floors, behind commercial buildings, or on side streets.

When commercial land uses are spread across vast geographies, the development pattern reinforces an automobile-only mentality of travel and undermines a sense of place. This linear and dispersed pattern of development also seriously undermines the potential to generate the substantial tax revenue that more compact development patterns can generate. Allowing for mixed-use districts creates a built-in market of residents for local businesses, provides for greater tax revenue per acre of land and per linear foot of infrastructure, and improves the sense of place for customers, business owners, and residents alike.



Master Plan Case Study: New Buffalo Township (2019)

Ch. 11 – Future: Land, Zoning & Action

A major departure of these recommendations from the Township's past regulatory system is the permitting of multifamily residential uses in all of the proposed commercial districts. The Medium- and High-Density Residential categories have been removed in favor of mixed use development, both along the Township's coastal corridors and within the areas surrounding the Township's two Interstate exchanges as defined by the Township's adopted Corridor Improvement Authority. These higher-density formats are encouraged in order to meet the Township's need for housing in a wider range of price points and to offer options which are accessible by means other than personal vehicle. (p. 113)

WHY IT IMPACTS HOUSING

In many communities there is very little land available to build compact housing types such as apartments, condominiums, or townhouses. This may be because a majority of the land has been built-out with development that is relatively low density in nature, such as large lot single-family homes or single-use/single-story commercial buildings. Existing development patterns can therefore take a long time to change. Community infrastructure, such as water and sewer, may also be limited to confined geographic areas. Whatever the case, rezoning to allow residential uses in commercial districts presents a strong opportunity to allow for more housing types where local roads are designed to accommodate traffic and connect new households to regional job centers. While other tools in this Toolkit include recommendations to support a greater variety of housing types and lot types in traditional neighborhoods, this strategy is appropriate for commercial districts.

HOW IT IS USED

Allow for new residential development to occur in between existing buildings, on under-utilized parking lots, on the out lots surrounding other retail, or above commercial or office uses. This is best done as part of a larger redevelopment strategy where the community intends to utilize existing infrastructure to support mobility choices and establish a strong sense of place on and between commercial parcels. In these environments, each new residential building can provide another piece of the puzzle over time.

PARADIGM SHIFT

It's important to recognize that a commercial corridor without any residential uses today may not immediately take on the feeling of a tight-knit neighborhood once you allow for residential uses. If the first few investments are small, it will take time to establish a sense of place. As a result, those first investments may require financial support from the public sector to become viable.

There are several state tax incentives that are available to support mixed-use or multi-family development in commercial districts. These can be helpful to catalyze early investments and support new construction before the local private market is able to fully sustain the cost of new development. The Michigan Economic Development Council (MEDC) MiPlace Developer Toolkit and Build MI Community Initiative can provide useful technical assistance.

Master Plan Case Study: City of Sturgis (2020)

Ch. 10 – Integration & Implementation, Zoning Changes:

Most of the zoning changes needed to implement the "live" recommendations of this master plan entail expanding the types of housing offered. This can be done in a couple ways. For example, "mixed residential," could be formed that permits a mix of housing types, and/or the established residential zones could expand what is permitted. Another example of expanding residents' housing options is to consider an "age-in-place zone" where development caters to Baby Boomers and future generations who wish to change homes as they age without leaving their community. This would require a re-thinking of residential zoning, as many of these developments call for a mix of housing units, medical offices, and community facilities. Another way to do this is to permit second story housing downtown and in mixed-use zones, and programming vacant and redevelopment sites for alternative residential uses can solve the "missing-middle" housing shortage. (p. 97)



Google Streetview

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Understanding the economics of commercial land values and redevelopment is important to catalyze mixed-use districts. It's important to recognize that an existing commercial building that is producing rental income for the owner is an asset. Most commercial building owners won't consider demolishing an existing building unless the potential return on investment for a redeveloped site will exceed the return on investment from the existing building.

Similarly, adding additional stories above an existing single-story building is not always structurally or financially feasible. The cost of shutting down the business on the ground in an effort to add the construction necessary to carry the load of one or two stories of residential units above may undermine the economics of the project. The specifics will need to be calibrated to a property's unique location and condition within a community.

Zoning Ordinance Case Study: City of Royal Oak

The City of Royal Oak has two mixed use zone districts, allowing for a mix of uses at varying densities.

§ 770-45. Mixed Use 1.

Purpose: This zone is intended to provide for a mixture of residential, office and low-intensity public/institutional uses in an urban design pattern. While permitting redevelopment and reuse of certain areas of the City, uses within the Mixed Use 1 District are intended to be compatible with the established residential neighborhoods... In general, the proposed development shall be consistent with the Master Plan. In particular, the proposed development shall be compatible with adjacent uses and improvements, shall minimize adverse impact to traffic circulation, and shall be of overall benefit to the community. A single use may be proposed; however, said proposed use shall be consistent and compatible with the mixed use intent of this section.





§ 770-46. Mixed Use 2.

Purpose: This zone is intended to provide for a mixture of residential, office, low-intensity public/institution uses, and neighborhood business uses in an urban design pattern. Such uses are intended to link the Central Business District with residential neighborhoods and the Woodward/I-696 Regional Business District. Upper floor residential uses are encouraged above lower level retail or office uses...In general, the proposed development shall be consistent with the Master Plan. In particular, the proposed development shall be compatible with adjacent uses and improvements, shall minimize adverse impact to traffic circulation, and shall be of overall benefit to the community. A single use may be proposed; however, said proposed use shall be consistent and compatible with the mixed use intent of this section.



Google Earth

TABLE 154.408.G1 PRINCIPAL BUILDING TYPES - SUMMARY

Principal Building Type	Permitted Districts
 <p>HOUSE: A detached Building having an Edgeyard yard type that may be shared with an Accessory Building in the backyard. This Building type typically incorporates a single Residential unit.</p>	<p>CO-3L CO-3 CO-4</p>
 <p>DUPLEX: A small to medium sized Building that consists of two attached units, with separate entrances at least one of which faces the Thoroughfare. Both of the units, side-by-side, front-to-back or over-and-under, are contained within a single Building Massing. This Building type sits on a small to medium sized Lot having an Edgeyard or Sideyard yard type that may be shared with an Accessory Building in the backyard.</p>	<p>CO-3L CO-3 CO-4</p>
 <p>TOWNHOUSE: A collection of very narrow- to medium-sized attached Buildings with a Rearyard yard type (or Sideyard if an end unit) that consists of side-by-side units with individual entries facing the Thoroughfare. This type shares at least one party wall with another Building of the same type and occupies the full Frontage Line.</p>	<p>CO-4 CO-5</p>
 <p>MULTIFAMILY: A Building that consists of 3 or more side-by-side and/or horizontally stacked units, typically with one or more shared entries.</p>	<p>CO-4 CO-5</p>

Illustrations are provided for illustrative purposes only.

Zoning Ordinance Case Study: City of Mount Pleasant

The City of Mt. Pleasant allows a variety of housing types in traditional commercial zone districts. The CD-4 General Urban District and the CD-5 Urban Center District allow for a range of stand-alone housing types in addition to mixed-use buildings and commercial businesses.

TECHNICAL RESOURCES

- [Case Studies in Retrofitting Suburbia](#)
- [Placemakers – Don't Get Mixed Up on Mixed Use](#)
- [Urban Land Institute – Mixed Use Development 101](#)

Expand Allowable Uses

WHAT IT IS

Today's zoning ordinances contain a myriad of regulations - setbacks, lot sizes, lighting requirements, and more. Somewhere in every zoning ordinance there will be a list of mapped districts and the subsequent list of uses that are allowed in each. Expanding the list of housing types that are permitted in each zone district, especially by right but also as a special land use, will open up more land to more housing types. After all, they are all residential uses...the change simply allows the opportunity for more housing types other than only detached single family homes to be constructed. Adding new housing types to existing residential zone districts can be less controversial than collapsing or renaming known zone districts.



Master Plan Case Study: City of Warren (2021)

Goal: To have a diverse housing stock that accommodates residents through all life stages and all income levels.

Objectives:

- To provide "missing middle" housing options at a range of price points.
- To integrate new housing types into neighborhoods.

Strategies:

- Permit duplexes by right in all residential zones.
- Permit small multi-plexes (up to 6 units) as a special land use in all residential zones, subject to design criteria. Permit small multi-plexes (up to 6 units) as a special land use in all residential zones, subject to design criteria.
- Permit accessory dwelling units in residential zones. (p.117)

WHY IT IMPACTS HOUSING

Allowing for additional housing types in residential neighborhoods will increase housing supply and housing affordability. Research shows that limiting the land available to medium and higher density development raises housing prices because it is an artificial restriction on supply.⁶⁶ Limiting the majority of the residentially zoned land in a jurisdiction to detached single family is also a limitation on personal choice and does not meet the needs of the diverse household types common in most communities. Nearly two-thirds of households consist of only one or two

persons. Many older Americans report their desire to stay in their same home and community as long as possible (76% and 77% respectively).⁶⁷ Yet many homes are not suited for aging in place. Many communities do not allow for accessory dwelling units or duplexes that might allow a family member or caregiver to live with an aging relative. Expanding uses in residential zone districts to include duplexes, accessory dwelling units, townhomes, and apartment buildings is a way to create housing that serves the needs of Michigan's residents, increase housing supply, and increase housing affordability.

HOW IT IS USED

To start, conduct an inventory of your existing detached single-family housing units. How many duplexes or multi-family homes presently exist? Are they nonconforming? You will be able to get a sense of which neighborhoods in your community were developed earlier, with a fair number of duplexes and [Missing Middle Housing](#) types. Using a pattern book can help you analyze your community.

Once you have a sense of what exists in your community versus what is permitted by zoning, you can begin to close the gap. Expanding allowable housing types can be done incrementally. Perhaps you begin by allowing attached single-family housing by-right and six-plexes as special land uses in exclusive single-family zoned neighborhoods. Many zoning codes do not permit more than detached single-family units by right, so developers often resort to use and dimensional variances or the planned unit development (PUD) process to create more units. Reducing the administrative burden and allowing the planning commission alone to approve these uses as a special land use lowers the cost of development as well.

You could also move a step beyond and allow duplexes and triplexes by right. If you expand allowable uses in concert with [Performance Zoning](#) and [Form- and Site-Based Standards](#), you can ensure that housing types are sited appropriately.

Zoning Ordinance Case Study: City of Marquette

Marquette's Low Density Residential zone district allows duplexes by right and accessory dwelling units as a special land use.

Section 54.307 LDR, Low Density Residential District

Intent: The LDR district is intended to establish and preserve quiet, attractive neighborhoods of detached single-family dwellings with a low to medium density and compatible residential land uses. Some additional non-commercial, compatible uses may be allowed. It is also intended that developments in this district will be designed to preserve significant natural features, including woodlands, steep slopes, wetlands, and floodplains.

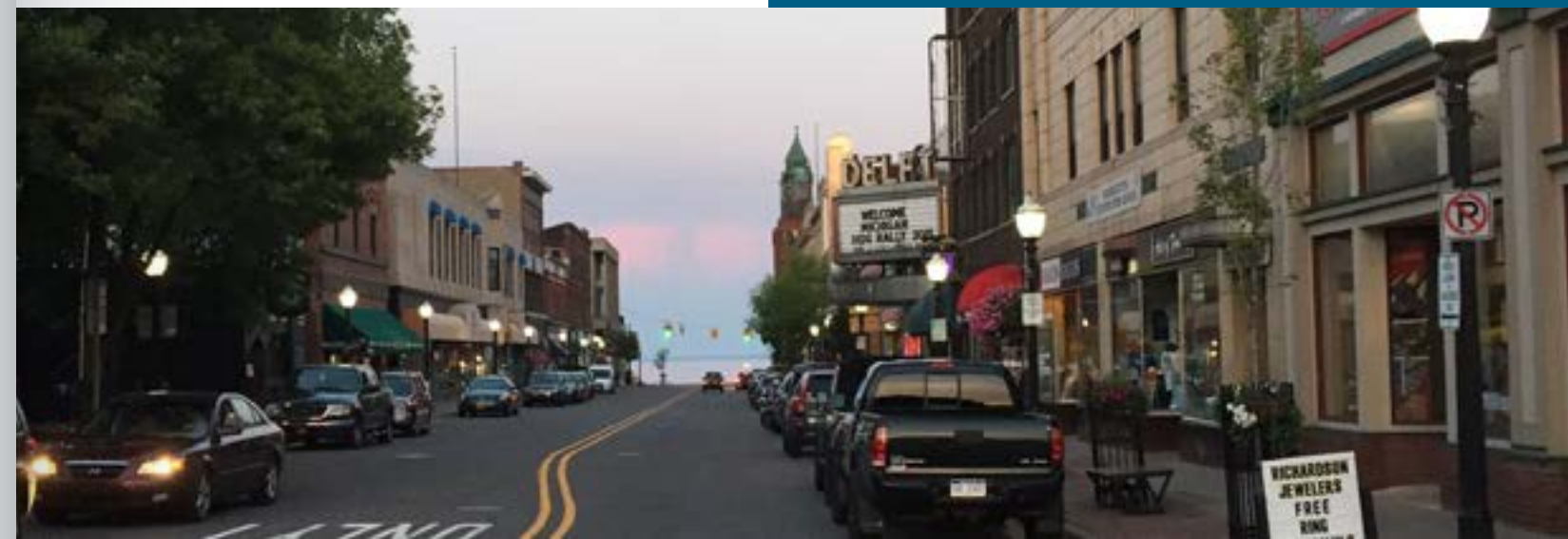
The Medium Density Residential zone district allows accessory dwelling units by right, duplexes, and "intentional communities" as a special land use.

Section 54.308 MDR, Medium Density Residential District.

Intent: The MDR district is intended to establish and preserve medium density residential neighborhoods that present an environment acceptable to a range of users, including families of all types. Some additional non-residential compatible uses may be allowed. It is important to the community to preserve and enhance the pedestrian-friendly, compact neighborhood types where homes and buildings are of similar scale and character.

In Marquette's zoning ordinance, an "intentional community" is defined as:

A planned residential community designed to have a high degree of social cohesion. The members of an intentional community typically have common interests, which may be an organizing factor, such as a social, religious, or spiritual philosophy, and are likely to share responsibilities and resources. Intentional communities include cooperative housing communities, communes, convents, eco-villages, and housing cooperatives. Property may be owned collectively, and/or new members of an intentional community may be selected by the community's existing membership.



Zoning Ordinance Case Study: Grand Haven

The City of Grand Haven renamed their Single-Family Residential Zoning District to the Low-Density Residential Zoning District in January of 2020. They expanded the allowable uses in the Low-Density Residential Zoning District by adding duplexes and accessory dwelling units as a special land use. In their Moderate Density Residential Zoning District, they added accessory dwelling units and multiple-family as special land uses.

Section 40-403.01. - LDR. Low Density Residential District

Intent: The LDR, Low Density Residential district is intended to provide for relatively low-density single-family residential neighborhoods, which predominantly serve families with children. Neighborhoods will be quiet and free of unrelated traffic, though limited, low-impact residentially related land uses may be permitted as described below. Residential streets will be scaled for compatibility between pedestrians and automobiles; and will be lined with attractive landscaping. Except where topographic or other environmental constraints preclude such connectivity, streets within the LDR district should be interconnected, although both curvilinear and grid patterns are encouraged, some cul-de-sac and collector patterns may be developed.

Section 40-404.01. - MDR. Moderate Density Residential District

Intent: The MDR, Moderate Density Residential district is intended to provide for moderate density single-family residential neighborhoods, with two-unit dwellings being permitted along key street segments. Neighborhoods shall be quiet and free of unrelated traffic, though limited, low-impact residentially related land uses may be permitted as described below. Streets within the MDR district shall be interconnected.

PARADIGM SHIFT

If it looks like a duck, quacks like a duck, and waddles like a duck then... it's a duck. Naming this section Expand Allowable Uses is, in truth, a misnomer. The reality is that all of the housing types we have been discussing in this Toolkit are actually all the same use. A duplex, rowhouse, and apartment building are all residential uses. Think about reframing how you talk about varying housing types as uses. They are all the same use - the number of housing units in a structure is what is different.

Today, it is estimated that it is illegal to build anything other than detached single-family on 75% of residentially zoned land in the United States.⁶⁸ We will not solve the housing supply crisis if we do not free up more land for the development of more and different types of housing. It is important to note that this is not an argument against detached single-family housing, but against the law privileging this type of built form over all others.

Planners Michael Manville, Paavo Monkkonen, and Michael Lens said it well when they wrote in the Journal of the American Planning Association in 2018:

“There is nothing intrinsically wrong with detached single-family homes...Living in a detached single-family home is a perfectly acceptable private choice...But it is not a choice that warrants public protection. People in detached single-family homes neither need nor deserve laws ensuring that nothing will surround them but structures like their own.”

Furthermore, it's been shown that diverse housing types are beneficial to the quality of life and stability of a neighborhood. A study of foreclosure and home sales in 14 U.S. metropolitan areas before and after the peak of the foreclosure crisis in the late aughts found that neighborhoods with less housing diversity had higher foreclosure and sales rates.⁶⁹ Expanding allowable uses to include more dense housing types is about choice, quality of life, and addressing the severe housing shortage we are seeing in Michigan and across the country.⁷⁰



Accessory Dwelling Unit in a neighborhood.

Google Streetview

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Single-family residential is a cornerstone of traditional zoning ordinances. When zoning was enacted in many communities, huge swaths of land were zoned for detached single-family at the same time. It will be an adjustment to conceive of “single-family” districts as being suitable to a wider range of housing types. One recommendation is to rename the “single-family” zone district to something else. Some communities have adopted the language of “low-density residential” or “mixed-density residential”.

Homeowners can be a significant force of opposition, which is why the “How to Talk About Housing” section was included in this Toolkit. Using your community's comprehensive plan as the basis to provide housing for current and future residents assists in setting a framework for discussion as well. It will be important to identify what talking points will resonate in a given community's context and understand housing needs based on available data before zoning text amendments are proposed.

TECHNICAL RESOURCES

- [City of Grand Rapids – Neighborhood Pattern Work Book](#)
- [AARP & CNU – Enabling Better Places: A Handbook for Improved Neighborhoods](#)

Performance Standards for Uses

WHAT IT IS

Many communities prohibit certain uses in a given district out of fear of possible nuisances to adjoining land uses. Performance standards for uses can help to achieve compatible mixed-use environments. Instead of preventing all potential adverse impacts by eliminating specific uses from a zoning district, these use-based standards allow for differing land uses to be sited harmoniously by preventing or limiting the nuisance. In this way, property owners who are good actors have the flexibility to do more with their property. Those who might be bad actors are restricted from causing harm through the use of clear standards.



Master Plan Case Study: Village of Roscommon (2019)

Focus Area 4: Residential Development

Objective B: Maintain the tranquil quality of existing neighborhoods by protecting them from the intrusion of incompatible uses.

- (1) Implement buffering and lighting standards where residential abuts non-residential.
- (2) Ensure that all non-residential uses in residential neighborhoods are low impact and compatible with and support the residential uses. (p. 6-10)

WHY IT IMPACTS HOUSING

Performance standards make it possible to increase the number of potential locations for new housing by increasing the compatibility between uses, particularly in mixed-use districts where residential and non-residential uses coexist. [Rezoning for Mixed-Use/Multi-Family in Commercial Districts](#) should include performance standards as supplemental requirements. Standards that focus on the impact of a use, more than the use itself, can help to prevent adverse effects before they occur. Performance standards can be used when introducing new housing types to a neighborhood with detached single-family homes and in commercial areas where residential living is being added.

HOW IT IS USED

You may be familiar with performance based zoning or the use of performance standards to mitigate nuisances. For example, regulations targeting industrial by-products such as air pollution, noise,⁷¹ vibration, and glare are commonly found in zoning ordinances.

Typically located in a separate Article from zone district uses, performance standards are usually characterized as use regulations. These are separate provisions which are written uniquely for a particular use or group of uses that are being introduced into a geographic area. To address mixed-use environments, these requirements may be focused on

outdoor activities or particularly loud or late evening uses. For example, 24-hour uses, live entertainment, or outdoor seating may have standards to ensure that they do not become a nuisance to proximate businesses or residences. Rules may include restricting hours of operation, limiting rooftop or rear yard activities, or sound mitigation of a nightclub or bar where apartments are located on upper levels. A relief valve is typically provided that would allow staff or the Planning Commission the ability to waive requirements in certain circumstances where no issues are anticipated to emerge.

Performance standards may also apply to residential uses. This could include requirements for landscape buffers, building step-downs, or building step-backs to blend the edges of a higher density housing type with that of a single-family home. For example, where possible off-street parking and loading for a small apartment building would be required to be located away from the stand-alone home.

PARADIGM SHIFT

A conventional zoning ordinance relies on the zone district to do a lot of the regulatory work, but you can regulate at a more refined level of detail through use-specific standards. Ideally, a zoning ordinance will blend use, form, and site-based regulations.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

The use of performance standards requires the Zoning Administrator or Planning Commission to get comfortable with adding conditions of approval for uses. All conditions must be directly based on standards in the ordinance and should be reasonable so that conditions do not need to be modified over time. These conditions should be part of an enforcement protocol. In many places, staff capacity to respond to violations can be a challenge.

TECHNICAL RESOURCES

- [MSU Extension – There Are Multiple Ways to Style a Zoning Ordinance](#)
- [Housing Innovations Program – Performance Zoning](#)

Zoning Ordinance Case Study: Bath Charter Township

Article XIV, Performance Criteria, Section 14.01 - Purpose:

Within each zoning district is contained a section entitled “site development standards” which provides the framework for regulating the basic issues of zoning, i.e., adequate light, air, open spaces and so forth. Further criteria as contained within this article provide detailed regulations and restrictions in order to protect neighboring uses from possible adverse impacts associated with a given use. Also, to protect the general health, safety and welfare by limiting where uses may be established, ensuring that traffic congestion is minimized, controlling the intensity of use and prescribing other such performance criteria as may be necessary to meet the goals and objectives of this ordinance. In that flexibility within application of the basic zoning regulations is a primary focus of this ordinance, it also depends upon a comprehensive performance evaluation process to review use proposals as well as insure compatibility between neighboring and perhaps dissimilar land uses.



Form and Context

Many communities find significant homeowner resistance to housing types that look different than the surrounding neighborhood. This resistance is often based on prior experience with higher density development that was not well-executed. Under traditional Euclidean zoning in the 1970s, 80s, and 90s, many local zoning codes imposed very few design requirements. Carefully crafted design standards can be helpful in ameliorating neighbor concerns.

It's crucial to recognize that the quality of development or the market segment it attracts often has very little to do with density. Instead, as with all neighborhoods, the quality and price are driven by accessibility, proximity, and connectivity. Housing located near community amenities like grocery stores, libraries, schools, retail, medical, and nature, will be attractive to nearly all households in the marketplace - no matter the density. Well-connected and amenity-rich neighborhoods are far more likely to retain their value over time and attract additional investments than isolated neighborhoods without proximity or connectivity to desirable amenities.⁷²

In fact, there is no empirical evidence that higher density causes any decline in property value. It's often helpful to begin conversations about allowing for more compact development and a broader selection of housing types with discussions about design - which means talking about building form and building context.



Two different forms of quadplexes, Google Streetview

The tools that follow aim to accomplish the following:

- Trade density for better design to increase the compatibility of various housing types with existing development.
- Make development easier to accomplish by reducing lot area and lot width, density, unit sizes, and parking requirements.
- Facilitate the construction of missing middle housing.

One of the elements that can help existing property owners feel more secure in allowing for a greater variety of housing types is to identify specific standards related to form and the elements of a neighborhood that shape its context. At a minimum, this typically includes massing standards that ensure new homes and buildings aren't dramatically larger than existing buildings in the immediate area.

There may be a desire to go further with form and context standards in some communities. This may include standards related to the location and placement of garages and driveways, the amount of transparency (windows) on a residential building, and the size and scale of porches, or the front entry orientation.

A word of caution is needed here. Regulating the shape or form of new development does not equate to a City Council picking out paint colors or the Township Board dictating how many bedrooms. Community expectations must be reasonable and should relate to how a site and building functions rather than personal preferences. It is important to identify, then select, those things that are **most** important to the built context that new development projects should respect. For example, if all of the homes in a traditional neighborhood have front porches, then it would not be appropriate for a new fourplex to have a row of garages facing the street.

Affordability plays a role in this discussion. Design expectations can add a true financial cost to a project. The trade-off for those expectations can be additional housing units (increased density). This can create a win-win for the community and developer. For example, requiring detached single-family homes in a neighborhood will likely result in pricing of at least \$325,000 to \$350,000 for starter homes. In contrast, attached townhomes, duplexes, or small condominium buildings could offer starter homes from \$185,000 to \$250,000. This price point would be more attainable to more households.

It can be helpful to talk through the community's broader priorities as they may relate to supporting a variety of housing types and sizes or supporting those families who work within the community. Then, talk through the cost of new housing if all new homes were required to be identical to those that already exist compared to allowing a greater variety of types, sizes, and configurations. Pause when thinking about design regulations and ask:

- Does this rule really shape the overall look and feel of the neighborhood?
- Will this requirement make a difference or is this just adding extra cost?
- Am I imposing my personal preference?
- Can we provide a menu of options for a builder to choose from rather than being overly prescriptive?

Most neighborhoods can accommodate many different building types without any adverse impacts on the context and character of the community. If the context of the buildings is similar - the setbacks, relationship between buildings, relationship to the street - varying housing types can coexist harmoniously and even prove to be beneficial to home values. Recent data show that neighborhoods with diverse housing types retain their value better than neighborhoods that are all the same. The key is to find a reasonable balance between affordability (don't require too much in architectural standards) and value creation (new construction supports a quality built environment and, ideally more units) to find success.



Two different forms of duplexes, Google Streetview

Reduce Minimum Lot Width and Area Requirements

WHAT IT IS

Lot width requirements set the minimum standard for how wide a lot must be to support a particular land use; this is sometimes referred to as a frontage requirement – as in the amount of road frontage a lot must have. Lot area requirements set the minimum standard for how large a property must be. These two standards combined are often the primary criteria that establish whether a lot is buildable, and they are a significant controlling factor in the likely cost of a home.

Master Plan Case Study: East Jordan – Master Plan (2020)

Proposed Zoning Changes – District Regulations

In some instances, the district regulations conflict with the City’s historic development patterns. Where possible, these inconsistencies should be rectified in the zoning ordinance to reduce the number of non-conformities and support future development that is harmonious with historic patterns. Some examples of recommended changes to the district regulations include:

- In the R1 District, reduce the minimum parcel size and minimum lot width to ensure compatibility with the existing parcel boundaries. (p.118)

Neighborhoods & Housing

Goal: Provide for a variety of housing types to serve all residents with safe, attractive, and affordable housing options.

- Consider reducing setback requirements in the City’s traditional neighborhoods to accommodate infill development that matches the historic development patterns of those neighborhoods. (p. 124)



WHY IT IMPACTS HOUSING

Historically, neighborhoods and communities have included a wide variety of home sizes and lot sizes. Small cottages were built on small lots. Large estate homes were built on larger lots. In older neighborhoods, these lot sizes and house types were seamlessly intermingled on the same block or from one block to the next.

However, with the advent of the post-WWII suburban zoning paradigm, entire tracts of land were zoned for one standard minimum lot size or width, making building those smaller cottages much more difficult.

A common rule of thumb is that the home’s value will be approximate three times the value of the land it is on. With larger lots in high-demand areas, the land is too expensive to justify building only a small cottage. Instead, the larger the lot, the more expensive the land. The more expensive the land, the more expensive the home built there. In this way, larger lot sizes can be an exclusionary tactic used to prohibit smaller, less expensive homes.

Communities which intentionally zone land to require large lot sizes to discourage smaller, less expensive homes from being

built are leaving people behind. High housing prices can make living in certain communities nearly impossible for fire fighters, teachers, daycare workers, and other individuals the community relies upon. The practice of trying to keep out specific housing types is resulting in failed recruiting attempts to find a qualified workforce. Further, the Michigan Zoning Enabling Act (MZEA) prohibits the exclusion of uses and a 2015 Supreme Court ruling began to examine the concept of disparate impact where low-income individuals were excluded from better areas of a community.

HOW IT IS USED

Many communities use lot width or lot area (often the two in combination) to regulate the "character" of a neighborhood. These standards can be very blunt tools that, ironically, can be used to regulate and reinforce sameness.

More often, the standards that impact context have much more to do with how buildings frame the street: the proximity of trees to the road, how large those trees are, the amount and style of landscaping employed on both private property and within the public right of way, and the materials, architectural style, and form of the buildings. Lot width and area requirements in and of themselves do not necessarily give

a neighborhood any sense of character. Yet, they are often relied upon as the sole or primary method for articulating development patterns.

PARADIGM SHIFT

While the cost of land is one of many factors that impacts the cost of housing in a particular neighborhood, allowing more homes is an excellent mechanism to turn the dial toward slightly more affordable housing.

For example, if a 10,000 sq. ft. lot sells for \$75,000 and a builder/owner is permitted to build a single home on the lot, the total value of the land will be reflected in the sales price of the house – adding \$75,000 to the total cost of construction. However, this land price can be reduced by one-half or one-third per new home constructed if an additional home or two is permitted to be built. In this example, lot width and lot area requirements can have a \$25,000 to \$50,000 impact on the price of a new home in the neighborhood.

If the 1,000 sq. ft. home above can be built at-cost for \$200,000, the size and value of the land can potentially add anywhere from 12% to 40% to the final price tag. A 33' x 100' lot should be one option for a builder or homeowner to choose if a large yard is not a priority for the homeowner.

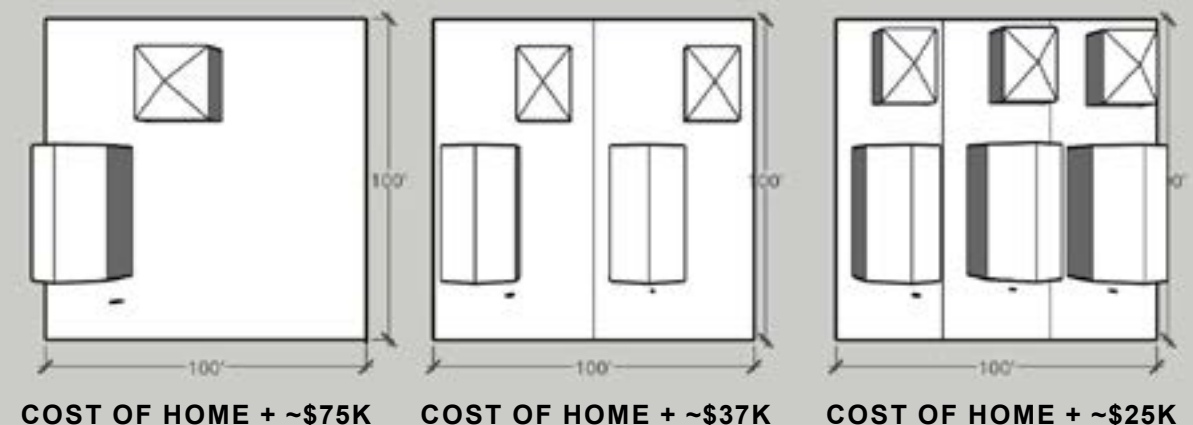


Image courtesy of Ryan Kilpatrick

Zoning Ordinance Case Study: Traverse City

This block in Traverse City includes lots that range from under 30' to more than 200' in width. Lot areas range from 2,000 sq ft up to $\frac{3}{4}$ of an acre. The average lot in this neighborhood is roughly 50' x 170' (8,500 sq ft). Yet, other lot sizes (both larger and smaller) coexist nicely. Also included in this image are the estimated values of each home and property. The size of the property is not always the primary indicator of the property's value in this example, and there is a most noticeable correlation in the smaller lots, allowing for more moderately priced properties.



Ch. 1332 – R1a and R1b – Single-Family

- The Single-Family Dwelling—Large Lot (R-1a) District is for the purpose of primarily accommodating conventional single-family dwellings.
- The Single-Family Dwelling—Small Lot (R-1b) district is for the purpose of accommodating single-family dwellings on small lots.
- Clustering (e.g., single-family attached, zero-lot-line detached dwellings) may be allowed in either district on larger parcels within the designated density guidelines as a means to protect sensitive soils and provide usable open space.

Reducing minimum lot width and area requirements can also have implications for infrastructure costs to a community. Allowing existing lots to be split for new homes takes advantage of existing infrastructure for infill development.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Many people believe the myth that sameness preserves property values. Opponents to allowing a diverse range of lot widths and sizes will argue that allowing for smaller lots will reduce their property value, add unwanted traffic, or change the neighborhood's character. Research by land economists provides evidence that does not support these claims. Neighborhoods with a greater diversity of housing types and price points fared much better during the Great Recession than homogeneous neighborhoods with only single-family homes.⁷³



Photo courtesy Modern Cottage Blog

TECHNICAL RESOURCES

- Your County may have a parcel viewer that you can use to view lot dimensions in your community, such as [Kent County Parcel Viewer](#) or [Property Gateway](#) in Oakland County.
- [BS&A](#) is a great resource to view property values and other information.

Reduce or Eliminate Minimum Dwelling Unit Size

WHAT IT IS

Most communities have established a minimum dwelling unit size for various housing types. For example, single-family homes must be a minimum of 1,000 square feet, and multi-family units will have a minimum size that can range from 400 square feet to 800 square feet, depending on the community.



Master Plan Case Study: Eaton Rapids (2020)

Goal: Variety

- Update the Zoning Ordinance to reduce the minimum lot size and/or minimum floor area requirements in residential neighborhoods. (p. 75)

Master Plan Case Study: River Rouge (2017)

Goal: Provide high-quality housing options throughout the City that meet the housing needs of all ages, income levels, and levels of disability.

- Action: Reduce the minimum floor area for studios and one-bedroom units. (p. 90)

WHY IT IMPACTS HOUSING

The cost of a home is very often directly related to the size of the house. Size isn't the only factor influencing cost, but it is a significant contributing influence. As a result, when a local community predetermines that all detached homes must be at least 1,000 square feet, the community makes choices on behalf of individual homeowners. From the single widow in their early 60s seeking to transition into a small cottage to the young professional hoping to move out of their parent's house into their first apartment, minimum dwelling unit sizes often have unintended impacts on which housing choices and price points are available in a community.

HOW IT IS USED

Minimum dwelling unit sizes are often imposed to prevent certain kinds of perceived incompatibilities. In some instances, a minimum dwelling unit size for detached homes was a reaction against mobile homes. However, these standards often created hundreds of non-conforming structures among post-WWII homes that might range from 750 to 950 square feet. This was the workforce housing for the Greatest Generation, and in many communities across the state, it has become illegal to build.

To implement, consider reducing the minimum required dwelling unit size by housing type. Or, you could even eliminate a mini-

minimum dwelling unit size. Some communities do not regulate the minimum dwelling unit size within their zoning ordinance. Instead, the zoning code defers to the standards of the Michigan Building Code. It is also common for Homeowner Associations (HOAs) to have their own private standards.

PARADIGM SHIFT

Since the 1970s, the average household size in the United States has been steadily falling. In 2020, just under 40% of all households in Michigan included children under 18 in the home. This means 60% of all households are comprised of a single adult or two adults without children at home.

Young professionals and empty nesters are both more likely to prioritize the location of their home over the size of the house. Communities that revisit minimum dwelling

Zoning Ordinance Case Study: Glen Arbor Township

Residence: A dwelling that is designed and built for human occupancy. The dwelling must have a minimum of 480 sq. ft. and a minimum core dimension of 20 feet by 20 feet (400 sq. ft.) The dwelling must have a bedroom, full bath, kitchen/dining area, and a living room. A residence may be occupied full or part-time and is often referred to as a home, house, apartment, condominium, modular home, or mobile home.



Google Streetview

TECHNICAL RESOURCES

- [The New Neighborhood, Empire, Michigan](#)
- [Pocket Neighbourhoods](#)

unit sizes can better accommodate the shifting demands toward lower maintenance and higher amenity options like cottage courtyards, townhomes, and condominiums. In high-growth markets with many young professionals seeking to live close to downtown, studio apartments are also an important option to allow. Combine this tool with [Reduce Minimum Lot Area and Width Requirements](#) or more flexible density standards, and this is a winner for creating housing that is more affordable.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

This is a fairly simple code adjustment with very few obstacles in the way of enacting right away. However, it is common to hear neighbors or planning commissioners express concerns about allowing smaller homes to be constructed in a neighborhood. The perception is that a smaller home will be less expensive and this will cause a drag on property values in the neighborhood. In reality, most property valuations are based on a combination of factors which include location, condition of the home, size of the home, and proximity to positive or negative features in the community. Where smaller homes are permitted in neighborhoods with a diversity of housing types, the smaller homes tend to retain a property value that is higher on a per square foot basis than larger homes.

This means that an 800 square foot cottage in a neighborhood with 1,600 and 2,400 square foot homes will likely be valued more per square foot than the larger homes.

- 800 square foot cottage: Estimated property value of \$230,000, or \$287/sq. ft.
- 1,600 square foot home: Estimated property value of \$325,000 or \$203/sq. ft.
- 2,400 square foot home: Estimated property value of \$399,000 or \$166/sq. ft.

Reduce or Eliminate Minimum Parking Requirements

WHAT IT IS

Most zoning ordinances require off-street parking to be provided for development. Commonly calculated by use, parking requirements are typically the minimum number of parking spaces that must be provided. Commercial uses may require parking based upon gross square footage or the number of employees, while residential uses commonly require parking based upon the number of dwelling units or bedrooms. Reducing or eliminating the minimum number of parking spaces required is an intervention that can lower the cost of development to make a housing project more feasible and/or increase the amount of developable land for more housing units.

Master Plan Case Study: Ann Arbor – Comprehensive Transportation Plan (2021)

The city should expand its current policy for downtown and remove minimum parking requirements from the Unified Development Code so that all new developments can determine the proper amount of parking based on existing and forecasted demand. A variety of cities across North America, including Buffalo, New York; Hartford, Connecticut; and Edmonton, Alberta have all eliminated parking minimums.

- In addition to removing minimum parking requirements, Ann Arbor should establish maximum parking ratios in downtown and other locations well-served by transit, such as along signature transit corridors (see Strategy 10). Maximum parking ratios set a ceiling for how much parking a development can include, while giving developers the option to provide any amount of parking beneath that threshold.
- By removing parking minimums citywide and establishing parking maximums in appropriate locations, the supply of parking will be better aligned with real-world demand. Requiring less land to be set aside for parking can bring a multitude of benefits by increasing housing affordability and freeing up land for alternative uses. (p. 106)

WHY IT IMPACTS HOUSING

Providing off-street parking costs money. That cost can be for the additional land area required to construct parking, the cost of materials to construct a surface parking lot or parking structure, or the cost of adding a garage to a residential structure. The cost of building surface parking spaces generally starts at \$20,000 for each space. A spot in a parking structure costs about \$45,000, and underground parking can cost upwards of \$75,000 a space. This cost is passed to the occupant, resulting in higher housing costs whether or not that person owns a vehicle. The cost of providing parking

also limits the ability of a developer to provide more housing units. Land or square footage that could be devoted to residential dwellings is relegated to parking. A study by the Mortgage Bankers Association found parking spaces outnumber homes 27:1 in Jackson, Wyoming. Philadelphia's parking density is 3.7 times greater than that of homes, and Des Moines has 83,141 households and 1.6 million parking spaces.⁷⁴

The relationship between parking, land use, and transportation can become a vicious cycle. Parking minimums drive up housing

costs, which inadvertently locates more affordable housing in areas where land is cheaper. In these "more affordable" areas, however, the need to drive and park is prevalent and raises household expenses for vehicle ownership.⁷⁵ In this way, parking minimums contribute to sprawl and support the need for an automobile as the only reliable or realistic form of mobility, thereby reducing access to jobs, education, medical

Zoning Ordinance Case Study: Traverse City

Traverse City outlines a vision for transportation that balances the use of the personal automobile with pedestrians, bicyclists, and other modes.

Chapter 1374 – Circulation and Parking

"The purpose of chapter is:

- To make Traverse City safe and accessible by pedestrians, cyclists, drivers and passengers.
- To give equal consideration to the pedestrian in the design of all public and private parking areas.
- To promote site designs that help to reduce crashes and conflicts between pedestrians and vehicles.
- To maintain the utility of the public rights-of-way to move goods and people safely and adequately.
- To promote interesting street edges that invite people to walk.
- To encourage a healthier transportation mix."

Traverse City also reduced their residential parking requirement from 1 per dwelling unit to zero.



Progressive AE

assistance, recreation, and nearly all other amenities and opportunities. This decreased accessibility most severely impacts people without the means to own an automobile or who cannot drive.

HOW IT IS USED

Parking requirements can be structured in a variety of ways. For residential development, a minimum number of spaces may be required per dwelling unit, the number of bedrooms, or the type of occupant (for example, senior living). Parking requirements can be reduced by decreasing the number of parking spaces required per dwelling unit. Instead of 2 spaces per dwelling unit, many communities now require 1 or 1.25 spaces. You can also establish different thresholds based on the number of bedrooms. For example, all dwelling units with two bedrooms or less could be required to have only 1 parking space, but 0.5 additional parking spaces could be required for each additional bedroom.

Proximity to transit or a community's central business district or the availability of bike infrastructure and public parking can also influence parking requirements. Many communities do not require parking in business districts, either for all uses or for non-residential uses. Other cities waive parking or reduce parking for housing located within a certain distance from a transit stop, such as half a mile or 500 feet. Another strategy is to waive a certain number of parking spaces if there is available on-street parking within a certain radius. Car parking requirements could also be reduced if bike parking is provided.

Additionally, allowing for shared parking agreements for complementary uses can be a way to limit the amount of off-street parking for neighboring parcels. Uses with a primary parking need during the day can allocate their parking spaces to uses with a primary parking need during the evening or vice versa.



Instituting maximum parking requirements is another way to limit parking provision and signals an attitude shift. A development providing more than a certain percentage above the minimum parking requirement may be required to receive special land use approval for the excess parking. Lastly, some communities are exploring eliminating parking requirements altogether. Developers are allowed to decide the parking the amount of parking needed.

PARADIGM SHIFT

It is not the responsibility of the local government to guarantee free and convenient parking for every resident, visitor, and business owner. Many communities established parking minimums in the 1950s and 1960s when developable land was more plentiful and attitudes about the automobile were different than they are today. However, the unintended consequences of prevalent parking are coming to bear. Local government units are questioning the utility of parking as a land use compared to other more productive uses. A report by the Urban Land Institute found that "parking often earns only 7 to 42 percent of the tax revenues earned by other land uses."⁷⁶

Sustainability and quality of life concerns are other motivations for reducing parking minimums. Required parking can lead to

increased traffic congestion and pollution, increased flooding and property damage from impervious surfaces, and rising temperatures due to the heat island effect.

Communities across the country are beginning to rethink their parking policy. A study by Parking Reform Network of 200 zoning ordinances across the country found that 20% have eliminated or reduced parking minimums throughout their entire jurisdiction.⁷⁷ The reality is that parking minimums are generally unnecessary in the zoning ordinance. Developers and the banks underwriting their financing will generally consider parking within the overall marketability of the development. It is in their best interest to finance/build only enough parking to meet end-user needs, or else it won't be marketable. There are two scenarios that result: either the ordinance requires more parking than the use actually requires, pushing up costs for parking that never gets used, or else the ordinance requires not enough parking and the developer will build more than the ordinance minimum, making a minimum requirement irrelevant.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Residents may say, "If you don't require parking for X development, people are just going to park in my neighborhood." Depending on the location of the neighborhood, it is possible this could happen. Solutions like on-street permit parking can be explored as well as parking management districts. Remember that oftentimes that same neighborhood is desirable is because of the nearby amenities.

Reduced parking should be done in tandem with policies to encourage transit and non-motorized transportation. This could entail changing the conversation around "free" parking and "free" roads. These are being paid for, but the costs may feel less direct.

TECHNICAL RESOURCES

- [Local Housing Solutions – Reduced Parking Requirements](#)
- [Parking Reform Network](#)
- [Urban Land Institute – Parking Policy Innovations in the United States](#)

Missing Middle Housing (including ADUs)

WHAT IT IS

Missing middle housing types take many shapes and sizes. Typically, “missing middle” housing refers to the moderate density housing types between detached single-family and larger multi-family housing, commonly 2-20 units per structure. The Opticos graphic below illustrates these housing types. The following is a shortlist of missing middle housing types.



Accessory dwelling units (ADU), sometimes referred to as a *granny flat*, *in-law suite*, or *guest house*, is a more commonly known example of missing middle housing. An ADU is a small residence that shares a lot or building footprint with a larger primary dwelling. These types of dwellings can offer tremendous flexibility for the homeowner – a place for an aging parent who would like to remain semi-independent but needs someone to look in on them regularly; an adult child saving for the down-payment to purchase their own home; a family friend who has recently gone through a divorce; or a working professional who has relocated to the area for a job but would like to take time to get to know the community before buying a home. Sometimes the homeowner will live in the accessory dwelling and rent the primary home to a family.



▲ Accessory dwelling units (or ADUs) come in many shapes and styles.

Photo courtesy of City of Tucson, AZ

Townhomes or attached single-family homes are typically houses attached to the neighboring house via a shared wall. These house types can be built on smaller lots with a smaller building footprint while still allowing for single-family homeownership with a traditional mortgage. This is one of the best ways to provide housing that can be family-oriented, owner-occupied, and remain relatively affordable.



Photo courtesy Mosaic Homes

Small Apartment House or Mansion House is an excellent way to integrate a different housing type into a neighborhood while maintaining some consistency with existing homes. These building types can fit seamlessly onto lots that are very similar in size to a detached house but can accommodate 3-6 apartment units. These building types create housing choices within neighborhoods that might otherwise be inaccessible to local residents, offering stable housing for essential workers, young professionals, and older residents who would like to age-in-place and no longer want the upkeep of their bigger home.



Photo courtesy Metric Structures

WHY IT IMPACTS HOUSING

Missing Middle Housing offers opportunities to build more than a single home on a traditionally sized lot in almost any neighborhood type. The building design and character should be very similar in size and massing to other structures in the neighborhood – see the [Form and Site Standards](#) tool for more detail on how to shape these regulations. By allowing these building types, local neighborhoods can offer housing choices in a broader range of sizes and price points while providing better access to local schools, parks, and amenities.

HOW IT IS USED

Missing middle housing is often located near neighborhood entrances, commercial districts, community gathering places like parks or recreation centers, between planned commercial/retail nodes, or on corner lots. Small clusters of missing middle housing can offer much needed diversity of housing types while maintaining the traditional character of a neighborhood.



Photo courtesy Thomson Architecture

PARADIGM SHIFT

Missing middle housing meets the needs of a range of household types. The following are a few reasons why a diversity of housing types is becoming more popular and necessary in the U.S.:

Master Plan Case Study: Cassopolis (2019)

GOAL #7: Identify residential growth opportunities and within five years, develop a strategy to attract housing types that match the State of Michigan's definition of 'missing middle housing', including: townhouses, mansion flats, fourplexes, duplexes, live/work, etc.

OBJECTIVE A

Execute a Residential 'Target Market Analysis' (TMA) to determine gaps in needs and attract developers (in conjunction with the commercial TMA).

OBJECTIVE B

Identify appropriate locations for missing middle, multi-family, and single-family residential types and identify strategies to attract residential developers.

OBJECTIVE C

Rezone land as needed to develop a comprehensive plan for the future of housing and the amenities that will be supported, and in turn support, new residents. (p. 43-45)



- *Aging in place.* A large segment of the population in many communities is aging and ready to let go of home maintenance responsibilities but would prefer to remain in an active and familiar neighborhood. Offering smaller cottages, townhomes, attached homes, condominiums, and accessory dwelling units can be an excellent way to support older adults who want to remain in their neighborhood without being obligated to own a 3,000 sq. ft. house with a large yard and all of the responsibilities that come along with it.
- *Multi-generational households.* Missing middle choices allow for families to care for elderly relatives or launch young adults into more independent living while keeping a close eye on them. Missing middle housing allows multi-generational families to maintain privacy and independence.
- *Housing across the lifecycle.* In some life stages, smaller homes are the most suitable. First-time home buyers often can't afford the largest homes, and elderly homeowners often want to downsize to something smaller and with less maintenance.
- *Financial benefit.* A homeowner can generate additional income by renting out one of two units in a duplex or an accessory dwelling on their property. A homeowner can also opt to live in the ADU and rent out the primary structure.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Some of the missing middle housing types are more likely to be rentals. Many people perceive renters as a potential threat to neighborhood stability. However, more than two decades of research have shown that neighborhoods with a diversity of housing types tend to fare better during economic downturns and have an equal or better rate of property value appreciation than their single-family only counterparts.



New construction is always surprisingly expensive, even for smaller and more diverse housing types. Neighbors may complain that proposed missing middle housing types are not affordable enough to justify the transition from single-family only. However, these arguments rarely consider the even higher cost of building new single-family homes as a comparison.

Missing middle housing types will require adequate water and sanitary services. This may mean a more extensive shared septic system or available underground utilities. However, smaller housing units typically accommodate smaller families who impose a lesser burden on infrastructure than larger families. Systems should be sized for the number of bathrooms and kitchens being served rather than the number of units.

Zoning Ordinance Case Study: Brighton

Article 98-3.0 Zoning Districts, R-5 Uptown Multiple Family

The R-5 multiple-family residential medium-to-high density district is intended to provide for residential units in a variety of styles and types within walking distance (five- to ten-minute walk) of downtown and adjacent to the downtown business district. The R-5 district is a unique area of the city. It is located north of downtown, east and west of N. Second Street, and is primarily surrounded by industrial and commercial uses. A portion of the district fronts on the Millpond. It is intended to be transitional between areas of dissimilar land use and the downtown. It also is intended to implement the High Density Mixed Residential category on the City's Future Land Use Map.

This district is divided into two sub-districts: Uptown North and Uptown South. Uptown North is envisioned with larger-scale multiple-family development projects on larger lots. Typical building types include large apartment buildings and townhouses. Uptown South is envisioned with small-scale, multiple-family structures on smaller lots, including redeveloping one or two lots of record that meet the dimensional requirements for the desired building type. Typical building types include townhouses, courtyard apartments, fourplexes, and similar types.

- For Uptown South, a typical building of one to three stories is envisioned. For Uptown North, up to four stories may be permitted if certain standards are met and the development is compatible with the surrounding neighborhood. The neighborhood in the R-5 district should be walkable, and tree-lined streets should encourage pedestrian linkages to downtown.

TECHNICAL RESOURCES

- [AARP – The ABCs of ADUs](#)
- [AARP – Home and Community Preferences Survey](#)
- [Local Housing Solutions – Missing Middle](#)
- [HousingMissingMiddleHousing.com](#)
- [MEDC – Missing Middle Housing Solutions](#)

APPLICABLE CASE STUDIES

- [Celadon New Town, Grand Rapids Township](#)
- [Veridian at County Farm, Ann Arbor](#)
- [North Barton Mews, New Buffalo](#)

Density / Height Bonuses

WHAT IT IS

Many communities regulate development based on the number of dwelling units per acre, number of stories per building, or building height. Each of these regulations creates an artificial cap on the number of homes or apartments that can be developed on a given parcel of land, regardless of what pressure there may be on the private market to produce more housing on the site. Creating a density bonus or a height bonus gives the planning commission and/or local governing body the ability to allow the private market to build more housing on a given site if the developer agrees to provide something associated with the project that also aligns with community priorities. A density bonus may be related to affordable or attainable housing, greenspace or open space preservation, sustainable development, or another priority that has been established by the community.



Master Plan Case Study: East Lansing Master Plan (2018)

Future Land Use Category: Residential 3 –
Context: Zoning Plan

This land use category is shown on the future land use map primarily where there is a mix of renter-occupied housing and owner-occupied housing within a single-family residential neighborhood or where there are multi-plex building types three (3) stories or less on the edge of a single-family neighborhood. The category allows for rowhouse and small multi-plex building types. It is limited to these building types at a density of sixteen (16) units per acre with heights no higher than two and one half (2.5) stories or thirty-five (35) feet by right or four (4) stories or fifty (50) feet with a bonus.

The intent of this land use category is to increase the variety of housing choices with a small-to-medium building footprint by allowing a higher density than the Residential 2 Category through increased height as a bonus and where it provides a transition between residential and commercial uses and between higher intensity multiple-family uses and single-family residential uses through the redevelopment of existing building types. (p. 88)

WHY IT IMPACTS HOUSING

Artificial constraints on the creation of new housing supply tend to impose a mismatch between supply and demand. When the local housing market proves a demand for more housing units per acre than the local zoning will allow, this typically creates scarcity in the market and pushes prices up more quickly.

HOW IT IS USED

By creating a density and/or height bonus, the community can allow for an incremental increase in housing units while simultaneously negotiating for community priorities that align with the project. However, it is imperative that this tool be calibrated to the local economic conditions in the specific neighborhood where it is

being utilized, and that the local planning commission has a clear understanding of the true cost of implementing the community's expectations. In some neighborhoods, a single story of additional height, or a half dozen additional dwelling units per acre can make an important difference for financing. In other neighborhoods, multiple stories of additional height or a doubling of density will be necessary to make the provision of the community amenity make financial sense.

Cost-benefit analysis example:

Mixed-Use building

A mixed-use, three-story building with a 10,000 sq. ft. footprint costs roughly \$7,000,000 to construct on a half-acre lot. The proposed building will have 5,000 sq. ft. of ground floor retail/commercial space and 28 residential apartments. In order for this development to make financial sense for an investor, the developer must charge at least \$18 - \$22 per square foot for the commercial space and an average of \$1,300 per month for the apartments. This rental rate is roughly affordable for households who are earning at least \$52,000 per year in the local community.

If the community offers the developer the option to build a fourth story in this building and add another 10 units to the

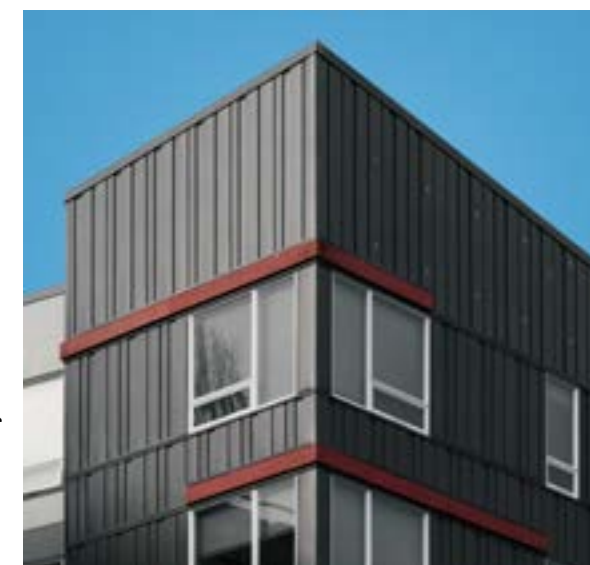


Photo courtesy Matt Reames

project, it is possible for the developer to moderately reduce the rent for a portion of the additional apartment units. It is important to recognize that the additional apartment units will each bring additional costs to the project. However, the overall cost per unit to construct these additional apartments will likely be slightly less as the number of units increases.

While the overall cost of construction will increase with every apartment unit added to the project, the cost of land, design fees, legal fees, and much of the site work will remain relatively the same whether the building is three stories or four. This means that at least 3-5 of the additional 10 apartment units could be leased for \$900 - \$1,000 per month instead of \$1,300 per month. These additional units would be attainable to households earning at least \$36,000 per year and works out to roughly 10% of the total units in the project being income-restricted and affordable.

Cost-benefit analysis example: New neighborhood subdivision

Similar to the previous example, communities can negotiate for an increase in the total number of homes per acre within new subdivisions. Where an underlying zoning code may permit 3-6 units per acre, allowing for 9-12 units per acre (or more) can provide for significant cost reductions on a portion of

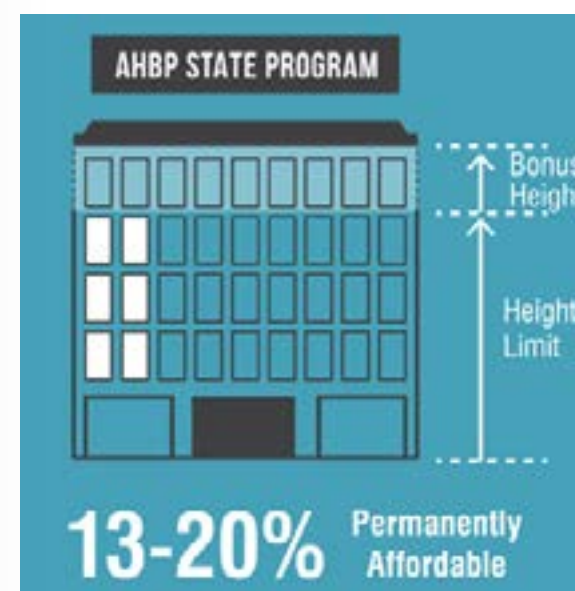


Photo courtesy City of San Francisco

the homes. The greater the density bonus, the greater the likelihood of a reduction in price.

Once again, in the example involving homes for sale, there are some fixed costs associated with construction that cannot be eliminated or reduced with a density bonus. However, by allowing for a greater number of small lots, and by allowing some of the homes to be attached instead of detached, a developer is able to disperse the cost of land, legal fees, design fees, and site work across a greater number of units. If negotiated strategically, this is an excellent opportunity to support mixed-income neighborhoods with a variety of housing types and price points to support a variety of family sizes and income levels. See [Missing Middle Housing](#) to learn more about these housing types.

PARADIGM SHIFT

For decades, many communities have operated under the assumption that density was not good for property values, tax revenue, neighborhood stabilization, and a host of other community priorities. In fact, the Michigan Zoning Enabling Act



Comparative densities

even cites one of its purposes being to “limit the inappropriate crowding of land and congestion of population!”⁷⁸ However, density carefully designed and regulated can offer dramatically improved property values, greater tax revenue relative to services required, and neighborhoods that are much more vibrant and socially connected.

Moreover, the National Association of Realtors biennial poll (2019) finds that a majority of homebuyers or would-be homebuyers prefer a walkable, amenity rich neighborhood to a large lot subdivision. The poll also found that a majority of Millennials, the Silent Generation, and the Greatest Generation preferred a smaller home in a walkable neighborhood to a large home without walkable amenities. These preferences have been consistent for about a decade. (It should also be noted that while the COVID-19 pandemic has impacted preferences for walkability, it is too soon to say whether these attitude shifts are permanent.)

The adjacent image illustrates two different neighborhood plans on the same ~18-acre parcel. The design at the top creates space for 38 new single-family homes. In Michigan, these homes will likely be priced from \$325,000 to \$425,000 each or more, depending on the location. Total investment is likely around \$12.5 million and taxable value is roughly \$6 - \$7 million.

The design at bottom creates space for 146 new dwelling units (40 single-family homes, 16 studio apartments, 16 live/work dwellings, and 74 townhouses), along with more than 50,000 square feet of commercial/retail/restaurant space, and a 10,000 sq. ft. church. Prices in this neighborhood are likely to range from about \$1,000 per month or less for the studio apartments, \$225,000 to purchase a townhouse, and the same \$325,000 to \$425,000 price point for single family dwellings. In this design, total investment is likely to approach \$50 million with a taxable value near \$25 million – 3 to 4 times the

revenue generated by the lower density option at top. Meanwhile, the mixed-density option creates housing choices for young renters, first-time homebuyers, empty-nesters, start-up business opportunities, middle-income families, and folks who want a larger home with all the benefits of a walkable, amenity-rich neighborhood.

This is an example of a significant increase in density which can create a correspondingly large amount of attainable and even affordable housing within the neighborhood. In exchange for the additional density, the local community may require a deed restriction to preserve affordability on a portion of the additional homes permitted and permanent protection of the open space.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

In many communities, density is still a four letter word. It may take some effort to communicate the benefits of allowing for greater densities. Creating a local capital improvement plan and clearly communicating the long-term obligation of local infrastructure can be a good opportunity to talk about density. The more efficient a community can be at maximizing the value of infrastructure to generate revenue that pays for short-term repairs and long-term maintenance, the lower the local tax levy must be to cover those costs. This, in turn, gives local voters choices to either reduce taxes or pay for additional amenities like public education, community recreation centers, enhanced parks, and open spaces, or even affordable housing.

When granting a density bonus, it can be tempting for a local planning commission to continue to maintain the standard minimum requirements related to parking

TECHNICAL RESOURCES

- [Inclusionary Housing – Density Bonuses](#)
- [Local Housing Solutions – Density Bonuses](#)
- [Inclusionary Housing – Mechanisms for Preserving Affordability](#)
- [Local Housing Solutions – Deed-Restricted Homeownership](#)
- [Randall Arednt - Rural by Design: Planning for Town](#)

Zoning Ordinance Case Study: East Lansing

Article VI. Business, Office, and Industrial

Districts – Division 4. – City Center Commercial District, B-3 – Section. 50-593. Development Standards

- F. The minimum building height shall be four stories. The maximum number of stories permitted is eight and the maximum building height is 112 feet. The city council may, upon an affirmative vote of three-fourths of all members of the city council, permit an increase in stories or a maximum building height of up to 140 feet for a building deemed by the city council to be of significant public benefit subject to an approved special use permit as provided in article II, division 3 of this chapter. Further, additional stories may be added to existing one- and two-story buildings that total less than four stories or 64 feet in height if the existing building remains substantially the same and no additional structural changes are needed to the existing building to support the additional stories.



and greenspace. However, these standards can often directly undermine the value of the density bonus. Each market is somewhat unique, but the higher the underlying land value, the more likely it is that excessive parking and open space requirements will undercut options for affordability.

Form and Site Standards

WHAT IT IS

Form- and site-based standards regulate the form and placement of a structure on a parcel. These standards are a middle ground between a conventional use-based zoning code and a form-based code. While a form-based code in the strict sense of the term is agnostic towards the use of a building, form and site standards work to appropriately integrate specific uses into an area. Use still matters, but a neighborhood can host a wider variety of them so long as they are appropriately sited and integrated.

Master Plan Case Study: Lansing – Design Lansing Comprehensive Plan (2012)

The City of Lansing established a Form Based Code in 2021 based upon recommendations from its 2012 master plan to adapt zoning standards to preserve and encourage appropriate neighborhood patterns.

Ch. 7 – Placemaking. Transect and Pattern Types
“A transect is an urban-to-rural cross section that identifies the relationship of pattern types which vary in the intensity and character of their natural and built components across the city. The different pattern types are defined by the design elements described above, including the layout and design character of streets; lot sizes and how buildings are located in relationship to the street and each other; building types and architectural styles and features. The transect and pattern type descriptions are often compiled in a “pattern book” and used to encourage building and neighborhood design decisions that reflect the regional location and architectural history of a city and that, as a result, are more compatible with the valued characteristics of the existing built context. They have been used effectively to counteract the standardized, “anyplace” design of mass-produced housing and chain

retail buildings and to ensure a coherent character and consistent quality in large development projects implemented over time by a variety of builders.

By understanding the pattern types and relationships that exist today, Lansing will establish a basis for developing the tools needed to ensure that valued patterns are preserved and less desirable patterns are enhanced or transformed in the future. This information provides the basis for future discussions on how placemaking content – also known as urban design or form-based considerations – might be made part of Lansing’s development regulations and/or review and approval process.” (p. 162).



Photo courtesy Brookfield Neighborhood

WHY IT IMPACTS HOUSING

If a common argument against range of housing types is that they don’t “fit in” to the existing neighborhood, form- and site-based development standards can help integrate denser housing into a low or mixed density neighborhood development pattern. These standards help to quantify the term “neighborhood character,” which can often be an amorphous flag waived in opposition to new or more dense housing projects. Form and

site regulations allow for the harmonious integration of townhouses, accessory dwelling units, duplexes, and small apartment buildings into residential or commercial zone districts. More units in more places means an increase in housing supply. Rather than barring certain housing types from a zone district outright, they allow for the location of these different types strategically.

HOW IT IS USED

The standards here fall into two categories: those that address the siting of a particular housing type within a neighborhood or on a parcel and those that address elements of the building’s form. These standards can be based upon a variety of factors: the zone district, the location within a street network, the size or frontage of the parcel, or the use, for example. While you are no doubt familiar with the dimensional or site layout standards common to a zoning ordinance such as minimum lot area or minimum front yard setback, this tool attempts to prioritize the form or context of a structure more than the number of housing units (density) itself when determining its appropriateness for a site.

Site and context regulations can allow a duplex or a multi-family dwelling to be permitted by right when certain lot criteria are met. For example, a duplex can be allowed by right when located on a corner lot, or perhaps an apartment building is permitted by right on all major streets within a community, regardless of the zone district. If you opt for that strategy, make sure to classify all the streets in your network and produce a map to refer to.

Building element requirements can ensure that higher density development integrates with the rest of the neighborhood context. These standards can apply to things like façade variation, building orientation,

transitional features, and transparency. In older neighborhoods, you might regulate the front entrances of buildings, making sure that traditional features like a porch or the framing of the doorway are maintained. In this way, [Missing Middle Housing](#) can appear architecturally similar to single-family homes. Form-based standards produce buildings that feel consistent in scale and massing and their relationship to the street and other buildings. This can result in a neighborhood that includes more than just detached single-family structures because structures are complimentary.

Consider form or context elements that the community may regulate: building orientation and placement, parking location, expression line, transparency, building materials, entrances and porches, landscape buffers, and building setbacks. There will be a tension here, however, with costs and feasibility to be mindful of.

Form and site standards when used in conjunction with other tools like [Expand Allowable Uses](#) and [Rezone for Mixed-Use/Multi-Family in Commercial Districts](#), allow us to create the sorts of unique neighborhoods that are beloved and typically could not be built under the conventional zoning codes that became ubiquitous in the early to mid-20th century. As an added benefit, many of these form and site standards can work to create more pedestrian-friendly and safe neighborhoods.



Photo courtesy City of Lansing

Zoning Ordinance Case Study: Pittsfield Township

Pittsfield Township created five mixed-use form-based districts in their most recent comprehensive zoning ordinance update. These districts were created in order to align with the 2010 Master Plan's vision for six mixed-use development nodes throughout the township. Each site in these districts has a street type, site type, building form, and use group.

Article V. Form-Based Mixed-Use Districts / 40-5.01 General intent, purpose, and use.

Intent. The Master Plan identified focus development areas within the Township that place greater emphasis on regulating urban form and character of development as well as use and intensity of use. Within these focus areas the Township encourages development with a mix of uses, including public open space, in order to provide transit-oriented development in a sustainable way. The Form-Based Mixed-Use Districts are intended to implement the vision, goals, and objectives of the Master Plan and any other applicable plans.

Purpose. The general purposes of these regulations are to:

- Ensure that development is of human scale, primarily pedestrian-oriented, and designed to create attractive streetscapes and nonmotorized spaces.
- Promote infill development and redevelopment.
- Promote a compact growth pattern to efficiently use the remaining developable land, and to enable the cost-effective extension of utilities, services, streets, and transit service.
- Promote mixed-use development in both a horizontal and vertical form.
- Ensure reasonable transition between higher-intensity development and adjacent neighborhoods.
- Improve mobility options and reduce the need for on-site parking by encouraging alternative means of transportation.

Factors for regulation. These regulations are based on two significant factors: site context and building form.

Site context is derived from existing and desired characteristics,

which include street types and site types. Streets can be divided into various types, based on purpose and unique attributes. Sites are divided into types based on characteristics including shape, size, and orientation. Areas are distinguished from one another by their site context, which includes size and configuration of the site, street patterns, location, existing land uses, and intensity of use. Therefore, considering site context provides a customized approach to the inherent conditions of the areas where these regulations are applied

Building form addresses the manner in which buildings and structures relate to their lots, surrounding buildings, and street frontage. The shape of the building, the land area to volume ratio, and the orientation of the building have significant impacts upon the general feel and character of an area. Building form standards control height, placement, building configuration, parking location, and ground story activation applicable to the site context

Regulations are tailored to meet a more specific intent of each district. These districts and intents are set forth elsewhere in this article.



Diagrams courtesy Pittsfield Township

TECHNICAL RESOURCES

- [Form-Based Code Institute](#)
- [Congress for New Urbanism](#)
- [CNU & MML – Enabling Better Places: Users' Guide to Zoning Reform](#)
- [CNU & AARP – Enabling Better Places: A Handbook for Improved Neighborhoods](#)
- [City of Minneapolis – Minneapolis 2040: Land Use and Built Form](#)

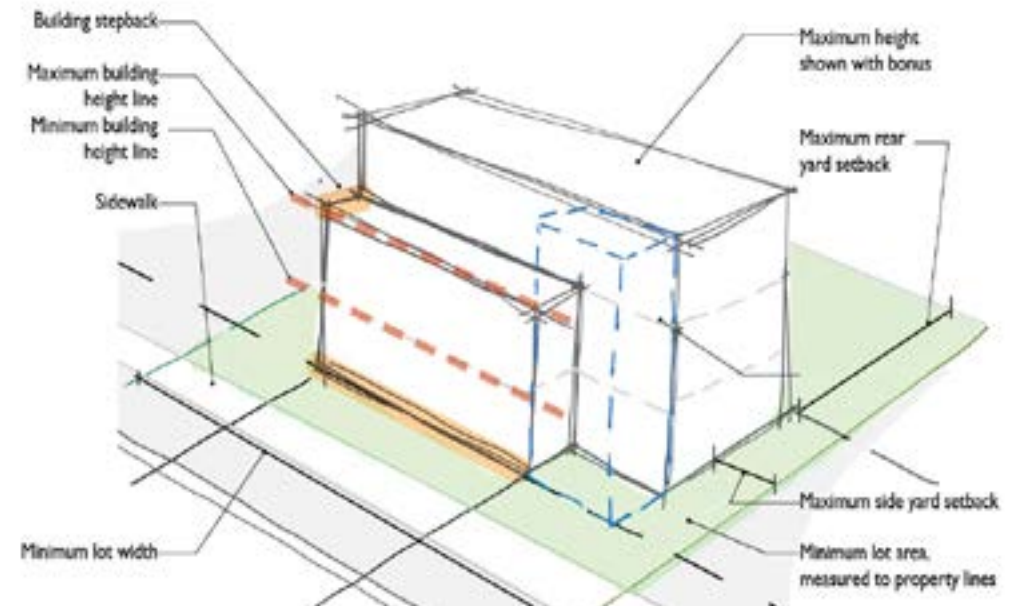


Diagram courtesy Progressive AE

PARADIGM SHIFT

One large shift is defining the various housing types as residential uses. While this might seem like a "duh" comment, standard zoning ordinances regard different housing types as completely different uses. For example, "multi-family" is a listed use, as are "duplexes" and "detached single-family". They are, in fact, all residential uses. The actual differentiator between them is the number of dwelling units contained within the structure.

It may also seem like an abrupt change to step outside outside the paradigm of the zoning district determining the appropriateness of the number of dwelling units. But form and site standards exist even in the most conventional of zone districts today. It is common for a development to be possible only if setbacks are met, for example, or a lot being able to be divided only if the resultant parcels are larger than the average of the surrounding lots. It is not that these form and site regulations are more onerous than the ones you might be familiar with, they simply have different objectives. Instead of taking the stance of exclusion, these standards are aimed at inclusion: expanding residential housing choices within a given neighborhood or district. And by expanding allowable housing types, you are also expanding options for the people that make up your community.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Form and site standards may feel onerous at first but, if combined with a consolidation of zoning districts and an expansion of allowable housing types, you may end up with a zoning ordinance that is easier to administer. You will be able to determine the appropriateness of a housing type based on whether certain form or lot characteristics are met.

As stated previously in the [Collapse Residential Zone Districts](#) and [Expand Allowable Uses](#) tools, form and site based standards will require an understanding of the existing and desired development patterns at a detailed level. You'll want to understand what unifies a residential neighborhood beyond simply the use. Are there trends in building heights and entrances? The relationship between buildings or between buildings and the street? Building element details?

Remember, you don't have to scrap your current zoning ordinance and replace it with a form-based code. Communities across Michigan and the country have been able to implement form and site based standards incrementally. You could start with one district, perhaps in a commercial area. As residents and developers get used to form-based standards, you can choose to expand them.

Processes

The district, form, and site regulations of your zoning ordinance aren't the only areas that can have an impact on housing supply and cost. The length of the development approval process can add cost to a housing project, which is then passed onto prospective renters or buyers. One of the Michigan Economic Development Corporation's Redevelopment Ready Communities "Best Practices" is to simplify and streamline development approval processes.

Developers dread local approval processes. It can be expensive, time consuming, and mentally exhausting with no guarantee that, in the end, there will be an approved building permit in hand. If a community's master plan and/or zoning ordinance is outdated, the process can also be ambiguous. It can be unclear to both the builder and neighbors what the criteria will be for decision-makers' review. This, then, leaves a lot of room for interpretation, bias, and uncertainty.

A proactive approach can be used that collects public input during the creation of your community's comprehensive master plan. The opportunity to describe what is desired, where the best locations for it are, and how it will add to the community's context can be received in advance of a development proposal. Zoning provisions should align with the master plan vision, and should be developed in a transparent process that ensures the community's expectations are codified correctly. These engagement opportunities really are decision points that inform the development approval process.

There is little incentive for neighbors to participate in a master planning process if the outcome of every development decision is decided in a public meeting.⁷⁹ Therefore, development approvals should really be considered an administrative function; similar to building or licensing approvals. The public is invited to provide input in the crafting of the rules, but

individual requests are managed as part of a standardized process that checks to make sure the rules are being followed. Public input on individual projects, when gathered, should be relied upon to learn new information related to the subject site and its surroundings. Neighbor concerns should be validated with data instead of speculation to assist in determining valid mitigation approaches.

The tools that follow aim to:

- Streamline development approvals to reduce uncertainty and permit housing construction.
- Encourage quality infill development that is predictable for neighbors and developers.
- Expand the range of approval paths best suited to a local market.



Photo courtesy Progressive AE

Development review can be made more efficient by removing the elected body from the responsibilities of site plan review for permitted uses, special land uses, and other general development approvals. Empowering the zoning administrator or planning commission to undertake non-legislative actions can create a more predictable decision-making framework. Removing unnecessary steps allows everyone to appropriately wield the planning authority bestowed upon them in the Michigan Zoning Enabling Act.

For the purposes of this section:

- "Zoning Administrator" refers to the administrator, planning staff, or consultants.
- "Legislative Body" or "Elected Body" refers to a Township Board, Village Council, City Council or Commission.

A community's approach to non-conformities can also work to expand housing choice and decrease review costs. The use of waivers or administrative departures to allow for planning commission or planning staff approvals can replace the necessity for seeking a dimensional variance in some cases. Additionally, allowing nonconforming structures and uses that may exist in your community to be treated with more flexibility can expand the supply of housing and encourage continued investment.

Another mechanism for reducing administrative burden in the development review process is allowing pre-approved plans. Communities across the country are experimenting with pre-approved plans – a particularly promising approach currently being used for accessory dwelling units and other housing types. Finally, zoning attempts to pre-empt unwanted behaviors by anticipating them. This prevents good things from happening because "what if". The use of police power ordinances outside of zoning can assist in managing nuisance behaviors, freeing up the opportunity to explore new methods of regulation.

There are a lot of reasons why changing development processes may be one of the hardest things in this Toolbox to accomplish. Whether elected leaders believe it is their duty to evaluate each development request, or the process is viewed as a negotiating tool to get what the community "really" wants, or it is simply the way it has always been done...those are excuses for not doing the hard work upfront to set the right rules that will achieve the right results. This barrier to increase housing supply and choice is entirely within a local jurisdiction's ability to change and can become an exciting opportunity to focus on other important business that will move a community forward.⁸⁰



Photo courtesy of City of Ontario Economic Development

Eliminate or Reduce Elected Body Approvals

WHAT IT IS

Whenever possible, a zoning code should be written simply and clearly. A zoning administrator should be able to administer the review of a majority of site development requests and uses that are permitted by right. More complicated site plans and special land uses may require planning commission review. The legislative body of a community does not need to review site plans or special land use requests because these are considered administrative functions that either the zoning administrator or the planning commission can undertake. Only when a legislative action is required – changes to zoning ordinance text or maps and development agreements – should the elected body be included in the process.



Case Study: Pinckney (2020)

The Village began the process to become part of the MEDC/Redevelopment Ready Communities (RRC) program in 2013. The RRC certification program promotes communities to be development ready and competitive in today's economy by actively engaging stakeholders and proactively planning for the future – making them more attractive for projects that create places where people want to live, work and invest. (p. 32)

- Pinckney's economic development strategy includes four goals: #4. Establish regulations and procedures that will advance the health and welfare of Village residents. Align goals and objectives in planning documents and the Capital Improvement Plan. Reduce administrative burden to streamline new developments.

WHY IT IMPACTS HOUSING

Time is money, and lengthy local approval processes result in more expensive housing. Part of the cost of development includes project design and the local approval process. The more subjective the local decision-making process, the more political it can become. Developers can experience increased holding costs, delays, frustration, and uncertainty about the viability of a project if too many housing units are removed from the original project proforma. Increased costs are then passed along to the end buyer or renter instead of being held by the developer. In the end, new dwellings may not be attainable for a number of households that otherwise would have been able to purchase or rent if costs are too high.

HOW IT IS USED

When a land use is determined to be compatible within a zoning district and the site plan meets ordinance requirements, the MZEA states that communities "shall approve" projects that meet ordinance standards. If all code requirements are met, then the zoning administrator should be able to sign off on a project just as if it were a building permit. Ordinance provisions can be included to allow the zoning administrator the discretion to present a project to the planning commission if there are concerns. In developing the review standards in your zoning ordinance, use these best practices:

- Provide clear, consistent, and streamlined standards for all land uses permitted by-right and allow site plans and applications

- for these uses to be reviewed by the zoning administrator.
- Consider allowing administrative departures for benign minor issues where the exact language of the ordinance does not fit (see Expand Administrative Review). Require findings, record keeping, and reporting to the legislative body as appropriate.
- Clearly articulate the performance standards related to uses.
- Establish consistent findings for the planning commission to review and consider in their approval process.

PARADIGM SHIFT

Spend time in your community to identify what is most important to regulate. Developers are not mind readers. Codify what you want. If there are design standards or particular performance standards that must be met, codify the requirements for developers to follow. In this way, the community achieves the type of development it desires without negotiations and long public hearings. The legislative body and planning commission can then focus on implementing the vision of the community's master plan and placemaking efforts that create more impactful quality of life and economic development outcomes.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

- Elected officials often want to have a hand in reviewing and approving development proposals. Instead of having site plans go to the entire elected body for review, you could consider having one of your elected officials serve on the Planning Commission as a way to encourage alignment between the two boards.
- Even though the planning commission is appointed by the legislative body, there may be issues of trust between the two. Ensuring sufficient training for elected and appointed officials, such as that offered by MAP, can ensure that your planning commissioners have the skills and training they need to carry out their responsibilities effectively.

Zoning Ordinance Case Study: Midland

In October 2020, the City of Midland passed zoning amendments to remove final site plan approval authority from City Council and bestow it upon the Planning Commission. This change was spurred in part by the City's pursuit of RRC certification from the MEDC. In a memo from the Community Development Director, several rationales are given for the change including:

Level the playing field for smaller developers by removing cost

- "From a developer's perspective, the proposed amendments will make the City's site plan process more concise and consistent. While these changes will benefit all developers looking to invest in Midland, small-scale, local and non-profit developers will see the most benefit through the leveling of the playing field. To small-scale developers, a more concise and predictable process will eliminate the perception that Midland can be challenging to new development. For any project, every new challenge is a cost to their project which increases the expenses to build within the city.

Simplified public engagement process.

- "The proposed amendments would also simplify the public engagement process for new site plans. While the intent of the current process may be to provide citizens more opportunities to weigh in, the effect can dilute engagement: a citizen who cannot follow the process or be available for multiple meetings may find their interests lost in the process. The current system also exacerbates a problem common to civic engagement. That it privileges a small minority of residents with the time and means to engage a project at multiple steps over the citizens who may only be able to engage a project once."

Alignment with MZEA

- "The proposed amendments will remove legal mismatch and reduce the City's exposure to risk. As discussed previously, the Michigan Zoning Enabling Act designates site plan approvals to be administrative in nature. Placing an administrative task on the agenda of City Council implies and invites a legislative role instead. This mismatch of expectations creates a situation where the City Council either invites legal action if it rejects a site plan that complies with the City's objective criteria, or it disappoints citizens who expected a more legislative action from City Council."

A. Midland, Article 27 – Site Plan Review

- b. Sec. 27.03.A. Review and Approval Authority
 - iii. All site plans shall be reviewed and approved by the Planning Commission and approved by the City Council following the procedures set forth in the following Section 27.04. The City Council Planning Commission shall have the authority to approve, approve with conditions, or deny all site plans.

TECHNICAL RESOURCES

- [Redevelopment Ready Communities - Best Practices](#)
- [Smart Growth America](#)

Expand Administrative Review

WHAT IT IS

Administrative review is a development approval conducted by the zoning administrator. Rather than require approval from the Planning Commission or the elected body, administrative review allows the zoning administrator to approve certain uses and development projects.



Zoning Ordinance Case Study: City of Kalamazoo

1.2 2025 Vision for Downtown

• “Create policies and regulations that facilitate the envisioned development and streamline the review and approval process.” (66)

3.1 Form-Based Zoning Downtown

• “Streamline Review & Approval. If the zoning regulations are crafted to achieve the desired outcome, fewer review steps will be required. Building within the parameters of the code could mean the ability to develop a lot by right.” (84)

WHY IT IMPACTS HOUSING

Expanding administrative review cuts down on development costs by reducing the amount of time required to get a project approved. Requiring a permitted use to go to planning commission for site plan review is an added step that can increase costs. By empowering the zoning administrator to exercise the administrative approval authority invested in them by the Michigan Zoning Enabling Act (MZEA), the approval of multi-family or mixed-use projects, where they are allowed by right, can be streamlined.

HOW IT IS USED

Administrative review can be used for more than single-family homes and sheds. They already happen every day. These routine development approvals are reviewed by the zoning administrator. Administrative approvals are authorized in the zoning ordinance and are typically used for site plans.

The MZEA states:

*“A site plan **shall be approved** if it contains the information required by the zoning ordinance and is in compliance with the conditions imposed under the zoning ordinance, other statutorily authorized and properly adopted local unit of government planning documents, other applicable ordinances, and state and federal statutes.”*⁷⁸¹

Site plan approvals should be an administrative function. The zoning administrator can confirm compliance. This expedites the review process and keeps the planning commission docket open for long range planning, rezoning requests, and other considerations.

Qualified review of certain uses is another way to expand administrative review. It is appropriate for those land uses with the potential for impact on neighboring uses but which do not rise to the level of needing

a public hearing. In qualified review, the public is notified in the same way they are as when a public hearing is scheduled – by postcard, notice in the paper, etc. This process is similar to that for special land uses, which the MZEA also allows the zoning administrator to do. If staff receives a request for a public hearing, then it is scheduled. If no request is received, then staff can review the proposal.

Administrative departures are another way to expand administrative review. In this case, the function is similar to the waiver power afforded the planning commission or even the quasi-judicial power of the Zoning Board of Appeals. Administrative departures are specific deviations from zoning standards that can be sought based on unique site conditions and can be approved administratively by the zoning administrator. The zoning ordinance authorizes what type of departure is allowed and describes the criteria that should be met to grant a departure. The ordinance may contain standards of review and require record keeping as a distinct approval so that departures can later be evaluated.

Administrative departures are not designed to be a substitution for a variance, but instead offer the flexibility to produce a

Zoning Case Study: Albion

Article 5. Plot Plan and Site Plan Review
Sec. 5.4 Designation of Major Projects & Minor Projects

- A. Major Projects. All developments greater than ten thousand square feet of structure or larger than two and one-half (2 ½) acres in size and all PUDs are major projects which require site plan review by the Planning Commission. All other projects are either minor projects subject to review and approval by the Planning Department or amendments to existing site plans.
- B. Minor Projects.
 1. The Planning Department (or Zoning Administrator) may review and approve minor project site plans or amendments without their submission to the Planning Commission provided that the proposed modification or amendment does not:
 - a. Increase required parking or decrease parking below that which is required;
 - b. Change the approved vehicular or pedestrian circulation pattern on the site; and
 - c. Include other site modifications that do require Planning Commission review and approval
 2. The Planning Department reserves the right to bring any “Minor Project” to the Planning Commission for final approval.



better or equal outcome to existing zoning standards by allowing a minor deviation. Examples include a waiver of parking up to a certain percentage when specific criteria are met, deviations for landscaping standards, or allowing an alternate location for the siting of mechanical equipment. Administrative departures should have their own application form and review standards to ensure consistency and transparency.

PARADIGM SHIFT

Approving a permitted use should be an administrative decision, not a political one. Expanding administrative review by allowing the zoning administrator to assess development projects against zoning standards keeps it that way. This does not mean that local leaders do not have a role in the development process. Elected and appointed officials play a critical role in establishing expectations for community engagement in the master plan process.

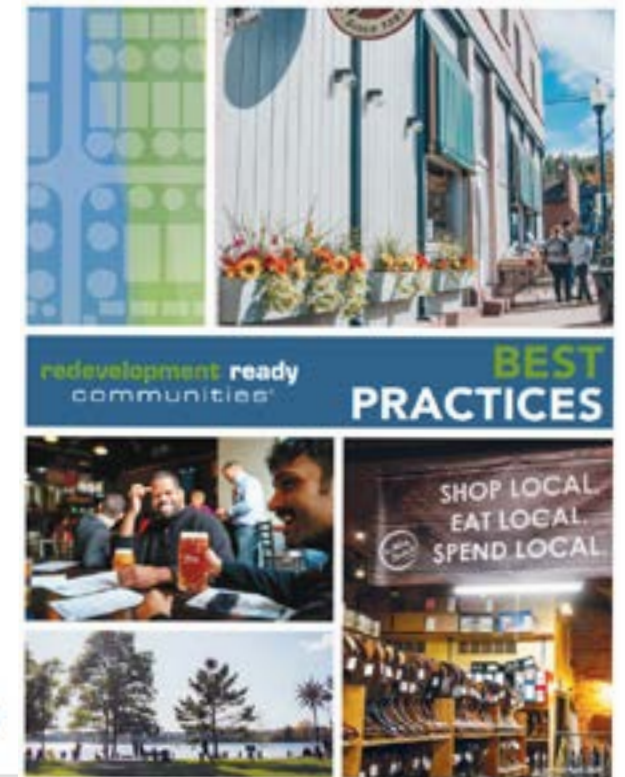
As the reviewing and approving bodies of the master plan and zoning ordinance, officials are also the gatekeepers of a community's policies and regulations. Officials' time is better spent crafting well-designed community plans and ordinance provisions to achieve exactly what the community wants, rather than spending time in public hearings on individual requests. The planning commission will stay busy with special land use requests, rezonings, and other often neglected duties like the capital improvement plan, neighborhood or sub-area planning, refining a zoning provision to produce a consistent results, or preparing the annual report and using it as a guide for next year's tasks. Reducing the amount of time spent on development reviews gives the planning commission time to do actual proactive, long term, visionary planning.

Administrative approval also does not mean that the public is excluded from the process. On the contrary, significant public engagement should be done ahead of time to determine what kind of development is desirable and appropriate. Discussion should touch not just on use but on standards like parking, landscaping, and building design. These priorities should be made clear in the master plan and codified in the zoning ordinance. When that is done, the zoning administrator will have clear guidance on the criteria by which to evaluate a potential zoning project.

Expanded administrative review is not a new idea for Michigan communities. The Michigan Economic Development Corporation's Redevelopment Ready Communities program recommends streamlining the approval process by using administrative review. Best Practice 3.5 Approval Authority expects site plans for permitted uses to be approved administratively or by the planning commission for 'Essentials' communities and expects permitted uses to be approved without a formal public hearing for 'Certified' communities.⁸²

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Your planning commission may desire to be as involved as ever with the minutiae of site plan review. Instead of focusing on what you are losing, think of what you are gaining...time to do more meaningful work. What could your board/commission be doing rather than debating the location of a maple tree or reviewing a drainage plan that your community engineer already reviewed? Codify your expectations and the outcomes you want to achieve. Then, set it and forget it. Instead, work on setting a vision for a part of your community, refine a zoning provision, or identify ways in which you could leverage other community resources to facilitate master plan implementation. The opportunities are endless!



Best Practice Three: Development Review

3.1 Defined Processes

Clearly defined development review processes provide predictability for investments big and small.

CRITERIA: The zoning ordinance includes clear steps for major development review processes.

ESSENTIALS EXPECTATIONS	CERTIFIED EXPECTATIONS
<input type="checkbox"/> Processes for site plan review, special land use, rezoning, variances, and text amendments are clearly laid out in the zoning ordinance.	<input type="checkbox"/> Processes for site plan review, special land use, rezoning, variances, and text amendments are clearly laid out in the zoning ordinance.
<input type="checkbox"/> Development review standards are clearly defined.	<input type="checkbox"/> Development review standards are clearly defined.

3.5 Approval Authority

Approving permitted uses at the planning commission or staff level allows faster approval and respects the administrative nature of development review.

CRITERIA: The community streamlines the approval process by using administrative and planning commission approval authority.

ESSENTIALS EXPECTATIONS	CERTIFIED EXPECTATIONS
<input type="checkbox"/> Site plans for permitted uses are approved administratively or by the planning commission.	<input type="checkbox"/> Site plans for permitted uses are approved administratively or by the planning commission.
	<input type="checkbox"/> Permitted uses do not require a formal public hearing (but allow for public comment and other engagement as deemed necessary).

TECHNICAL RESOURCES

- [MEDC & MAP – Streamline Development without Sacrificing Quality](#)
- [MEDC – Redevelopment Ready Communities Best Practices](#)

Pre-approved Plans

WHAT IT IS

Blueprints for a specific housing type are authorized by the local jurisdiction as “approved” for construction. These blueprints have been vetted for compatibility with a neighborhood’s context and are found to be appropriate.



Master Plan Case Study: Clark Township (2015)

Ch. 5 – Community Goals, Objectives and Strategies
Land Use.

- Objective: Coordinate all land use controls to prevent duplication and unnecessary “red tape”.

Housing.

- Objective: Review and enact appropriate zoning ordinance standards that minimize “red-tape” and encourage the provision of affordable housing in appropriate locations within the Township.

WHY IT IMPACTS HOUSING

Pre-approved plans that meet a community’s criteria provide a great deal of predictability and consistency for a homeowner, builder, and even neighbors. Decisions have already been made about what types of buildings are acceptable ahead of time. This shortens approval timelines and eases the workload of the zoning administrator. Design and permitting fees can be much less for someone using a pre-approved plan. The shortened timeline and reduced fees can assist in lessening construction costs. One of the ten principles of the Smart Growth movement is to “Make development decisions predictable, fair, and cost effective.”⁸³ Pre-approved plans are one such measure to enact this tenant.

HOW IT IS USED

This approach is particularly useful for infill housing scenarios where “gentle density” is allowed. The most common way in which

pre-approved plans are used is for Accessory Dwelling Units (ADUs) as a stand-alone structure. Floor plans and building elevations will typically be found in a design manual or website for a property owner to select from. (The configuration of a lot or building will need to be considered alongside the pre-approved plan.) Some communities provide pre-approved plans for free or at a very low cost; others have partnered with architectural or design firms to sell their pre-approved plans at a lower cost than a custom design; or a community may work with vendors who have prefabricated models available for purchase. Thresholds are identified by ordinance for allowable modifications to allow a plan to continue to be considered “pre-approved”.

PARADIGM SHIFT

What is old is new again. While Sears Catalog homes were not intentionally designed to provide a development pattern that would satisfy zoning requirements,

the idea of a model home that could be replicated is the same. Pre-approved plans take the guesswork out of the development process and provide a powerful “carrot” that expedites the development of small infill housing projects.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

A strong community process likely will be needed to build a willingness in the community to accept pre-approved plans. The length of time and expense to develop a program that is agreeable to all stakeholders can be a challenge where there is limited capacity to do the work. If the process is too narrow, however, the choices of pre-approved plans may fail to meet the demand for customizable approaches desired by owners. Plans provided by the community may also not be supported by a designer or architect to walk alongside the owner through permitting and construction phases.



Case Study: Citrus Heights, California – Permit-Ready ADU Program (PRADU)

Citrus Heights is a community of around 87,000 people located in Sacramento County, California. The community launched a permit-ready accessory dwelling unit program in the summer of 2021 in an effort to mitigate the region’s growing housing affordability crisis. Funded by a grant from the California Department of Housing and Community Development, the program provides homeowners with pre-approved plans for ten different accessory dwelling unit options. Designs range from a 496 sq. ft. studio unit to a 749 sq. ft. two bedroom-one bath unit. Options for roof lines, exterior finishes, and interior layouts are available, such as wider doorways and hallways to make an accessible unit. Plans can also be reversed to meet site conditions.

Plans are available to residents free of charge, which represents an estimated cost-savings of around \$6,500 in design costs and \$1,000-\$4,000 in plan review fees. The Citrus Heights PRADU website features a comprehensive list of FAQs, instructions, and the library of available plans.⁸⁴

Case Study: Roanoke, Virginia – Residential Plans Library

Roanoke is a city of almost 100,000 located in southwest Virginia. In addition to pre-approved plans for accessory dwelling units, Roanoke has a Residential Plans Library that includes plans for single-family and two-family homes. Plans can be purchased directly from the designer at a reduced price and then submitted to the City. All plans included in the library have been pre-approved for compliance with the City’s neighborhood design regulations and the Virginia State Building Code.



TECHNICAL RESOURCES

- [California ADU – Pre-approved Accessory Dwelling Units](#)
- [AARP – Model State Act and Local Ordinance for Accessory Dwelling Units](#)
- [AccessoryDwellings.org](#)
- [Citrus Heights, CA – PRADU Program](#)
- [Roanoke, VA – Residential Plans Library](#)

More Flexible Approach to Nonconformities

WHAT IT IS

Before single-family became the predominant housing type, many neighborhoods in America contained a diverse mix of housing types. A structure that was legal at the time of construction but is no longer due to amendments to the zoning code is referred to as 'nonconforming.' There are different categories of nonconformity—uses, lot size and dimensions, structures, and site elements can all be nonconforming, depending on the specific zoning provision in question. By taking a more flexible approach to nonconformities in your community, older structures and lots can be utilized to broaden the range of housing opportunities available for reuse and new construction.



Master Plan Case Study: Lincoln Park (2019)

Ch. 10 – Implementation

Develop a second category of nonconforming use within the Zoning Code which supports the continued existence of some nonconforming uses, including expansion and the right to rebuild, while prohibiting the establishment of new instances of that use in a district. (113)

WHY IT IMPACTS HOUSING

It is quite common for single-family residential zone districts to contain nonconforming two-family, multi-family, or commercial structures, especially in older neighborhoods. Because these properties were legal at the time of construction, they do have nonconforming status. However, most zoning codes have a clause whereby upon destruction of the structure up to a certain percentage (50 or 60 percent is common), the structure must be rebuilt to conform with the current zoning ordinance. Thus, while the nonconforming use or structure can continue to exist, it no longer conforms to the current local zoning ordinance. In many cases, property owners may not invest in their properties as much as they might otherwise, knowing that the type of use is not permitted or

desired within the zone district. As planner Michael Brough remarked in the American Planning Association's Unified Development Ordinance in 1985: "Nonconforming uses do not fade away – they simply become more run-down and shabby looking."⁸⁵ By allowing for a more flexible approach to nonconforming uses in your community, you may be able to dissuade disinvestment and in the process, secure another form of naturally occurring housing supply.

Uses can be nonconforming, but so can site or building elements. Let's say you have a single-family home that was built on a platted 40 ft. wide lot in the 1920s. In the 1950s, the minimum lot width for that single family district became 50 ft. The property now has a nonconforming lot width, and possibly setbacks or lot coverage. If that property owner wants to construct

an addition, they might have to seek dimensional variances to do so. Or perhaps a developer would like to split an 80 ft wide residential lot to build two homes. The lot consists of two platted lots of 40 ft. wide. Despite other homes on the block being sited on 40 ft. platted lots, the developer is not able to split the 80 ft. lot in two. Taking a more flexible approach to nonconforming site elements can allow for the creation of more housing.

HOW IT IS USED

Provisions regulating nonconformities typically specify allowances for enlargements, reconstructions, and substitutions. Many communities prohibit the enlargement of nonconforming structures or uses because doing so further entrenches the nonconformity. Reconstruction is typically allowed under a certain percentage of the value of the property. Additionally, a nonconforming use may be replaced by a use that is more conforming or no less conforming.⁸⁶

To allow for more flexibility, you can add language that specifies scenarios for nonconforming uses, structures, lots, and site elements (such as landscaping, for example), regulating each differently. Perhaps the expansion of a nonconforming use can be done when certain criteria are met and approved by the zoning administrator or Planning Commission. You can allow additions or improvements to nonconforming structures if the addition brings the property into closer compliance with current zoning standards. The case studies below highlight several strategies to deal with nonconformities in a nuanced manner.

PARADIGM SHIFT

Nonconforming uses, structures, lots, and site elements do not have to be obstacles to making great places. Think of your favorite neighborhood in your community. What does

Zoning Case Study: Plainfield Township

Section 4.03 – Nonconforming Uses

F. A nonconforming use within an existing building shall not be substantially enlarged or increased, nor extended to occupy a greater area of land than was occupied at the effective date of the adoption or amendment of this ordinance, except as may be permitted by the Community Development Department after reviewing the following criteria:

- Roads and streets leading to and from the nonconforming use, as well as any additional traffic flow problems to be created by said expansion.
- Any increase in noise, odor, fumes, lights, glare, waste, sewer discharge or other like detrimental effects created by the proposed expansion.
- Whether the proposed expansion of the nonconforming use is compatible with the surrounding areas and properties
- Whether the proposed expansion could be made less detrimental to surrounding properties and areas by the use of appropriate buffering and screening.

it look like? Could it be rebuilt under your current zoning code? Many of our most cherished neighborhoods would not meet current zoning standards. In many cases, taking a flexible approach to nonconformities allows for infill development in a neighborhood and can be a return to its original fabric. Simply by taking a more flexible approach to nonconformities, you can expand the range of allowable housing types and allow for investment in properties that may have been neglected. Think of this approach as an intermediate step before Expanding Allowable Uses or Rezoning for Mixed-Use and Multi-family.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Adjusting rules for nonconformities is one of the most benign changes that can be made, but will allow progress to begin to occur.

TECHNICAL RESOURCES

- [MSU Extension – Understanding Nonconformity](#)

Police Power Ordinances to Regulate Nuisance

WHAT IT IS

Authority is extended to Michigan's municipalities (townships, villages, and cities) to enact police power ordinances for the protection of public health, safety, and general welfare. Zoning is a police power that regulates the use of land. Over the years, zoning regulations became anticipatory or proactive – designed to prevent some real or perceived threat. The challenge is determining if current zoning regulations that restrict the use of land are substantiated and an actual detriment when other ordinances (e.g. nuisance, blight, noise, etc.) can appropriately address issues associated with negative behaviors and activities; or if zoning has been used as an exclusionary mechanism to limit housing choice.

WHY IT IMPACTS HOUSING

A detached single-family house, duplex, townhouse, or multiple-family apartment are the various housing types that are considered residential land uses. Zone districts will often differentiate between housing types. For example, an R-1 zone will only allow detached dwelling units, but an R-5 district may allow all housing types. There is an implicit bias in the approach that separates housing types. As more information has come to light about “de jure segregation” (segregation that existed because of local laws that mandated it) the view that a duplex or townhouse is dangerous to the public and somehow must be separated from a detached single-family house is becoming an outdated perspective. According to the Federal Fair Housing Act, it is a legal obligation of communities to break down barriers to housing discrimination.

The [Collapse Zone Districts](#) tool can be paired with other police power ordinances to address potential issues rather than automatically associating a negative behavior with certain types of housing or households. For example, an externality such as cars parked on the front yard grass can be better managed through a parking ordinance that allows for immediate ticketing. Other police power ordinances can react to undesirable conditions and activities as they occur. They are also more equitable

– the same rules apply everywhere in the same community rather than only applying certain rules in certain areas, such as zone districts.

HOW IT IS USED

There should be a reasonable relationship between public health, safety, and welfare and the regulation prescribed. Those ordinances could also be more effective when not tied to property rights; nuisance non-conformities may be better addressed with other police power ordinances. Sign regulations, for example can be contained within a zoning ordinance or placed outside of it. As a stand-alone ordinance, an added benefit is that non-conforming rights no longer become a consideration for signage.⁸⁷

Conduct a review of the zoning ordinance to identify areas where nuisance language can be shifted outside the zoning ordinance to a police power ordinance.

PARADIGM SHIFT

Police power ordinances can address overcrowding (building code), parking (nuisance or parking code), noise (noise ordinance), and other activities. Zoning regulations should not be based on “that one time” there was a problem. Consider how other ordinances can be used to address an issue in a faster, more efficient way.

The composition of households and the housing market itself have changed dramatically since the early days of zoning and zoning-related court decisions. Oftentimes neighbor perceptions, unsupported by data and based on fear rather than facts, drive land-use decision-making and ultimately result in exclusionary practices. Shed the idea that all solutions rest within the zoning ordinance. Local communities have a range of police power ordinances to draw from to address neighbor concerns while also increasing the range of allowable housing types within a zone district.

POSSIBLE OBSTACLES TO DESIGN AND IMPLEMENT

Police power authority for certain issues may not extend to a County under Michigan law. If a County does zoning for a local jurisdiction, it will need to be examined if some regulations could be severed from zoning. Most commonly, the jurisdiction under county zoning adopts typical police power regulations related to noise, dust, odor, etc. and is responsible for administering those regulations.

Cost and capacity to enforce police power ordinances related to nuisances are another consideration.

Case Study: Grand Rapids – Crime Prevention Through Environmental Design Ordinance
Crime Prevention through Environmental Design, known as CPTED, is a philosophy of crime prevention that utilizes a multidisciplinary approach to the built environment that is intended to deter criminal behavior, foster improved quality of life, assist in achieving community-policing goals, and facilitate self-policing by the community. CPTED draws on passive strategies incorporated into the normal planning, design, and management of the built environment. This ordinance focuses on goals that relate to the physical built environment and generally addresses the following key elements of CPTED philosophy:

- Natural access management for the physical guidance of people and vehicles
- Natural surveillance to promote and maximize visibility
- Territorial reinforcement to delineate space and express a positive sense of ownership
- Physical maintenance and management for the general upkeep of a building or area

Though this ordinance targets commercial and mixed-use design versus residential, this police power ordinance is an example of policy that addresses nuisance behavior outside of a zoning ordinance.

Zoning Case Study: City of Muskegon

It is important to understand how all of your community's ordinances work together. For example, the City of Muskegon found an issue when enforcing its anti-blight provisions to keep vehicles parked on paved driveways and parking pads. The City learned that there was a winter conflict with city parking bans in the early morning hours designed to clear the streets of vehicles when snowplows began operating. As a result, the City eliminated the winter street parking ban in the hopes of correcting front yard parking issues.



Photo courtesy Muskegon Chronicle

TECHNICAL RESOURCES

- [The International Crime Prevention Through Environmental Design Association](#)
- [City of Grand Rapids – CPTED](#)

Making the Tools Work: Market Contexts

The old adage in real estate is location, location, location. This is about how different market contexts can influence the cost of land and housing. For the purposes of this Toolkit, we have made some broad generalizations about a variety of local market contexts. However, there is no one-size-fits-all solution. Michigan is a diverse state with more than 1,800 units of government. There are different local politics, varied development patterns, and community priorities.

The contexts are described as: growth, transitional, and revitalization markets. Each local market has its own unique dynamics and characteristics which need to be understood by policy makers in order to wisely select from among the tools. We have done our best to generalize these market contexts with widely-available data, and to select a range of examples for illustration, with the recognition that the more local leaders can adapt these generalizations to the true conditions on the ground, the more effective these tools will be.

GROWTH MARKETS

These are residential areas that are experiencing new demand for residential housing. In most areas of the state, where growth is occurring, local communities are struggling to keep up with demand. They are experiencing a mismatch between the housing that is available and the prices that much of the local workforce can actually afford. As noted previously, when demand exceeds supply, housing prices have risen more quickly than local wages. This creates an affordability problem.

However, growth markets can be influenced by a number of factors. In regions like those anchored by Traverse City and Marquette, growth is being generated by seasonal and second homeowner

demand, expanding regional employers and educational institutions, as well as higher income workers with a newfound flexibility to work remotely. High demand is heavily influenced by a strong sense of place and access to outdoor amenities and abundant water resources. In these places, the strong market makes density bonuses a viable tool to attract developers, and reduction or elimination of minimums for parking and dwelling unit size can maximize the share of limited space that is available for housing. Increasing the range of housing types, too, can allow for more compact development so that land resources are conserved.

In several neighborhoods within and surrounding communities like Grand Rapids and Ann Arbor, growth is being influenced by an influx of young workers and empty nesters who are all vying for a limited supply of housing in walkable, amenity rich neighborhoods. University students are also competing for older, traditionally less expensive housing stock, and tend to be much more willing to live in groups of four or more in a single home or apartment – often paying \$500 or more per bedroom. Increasingly, low- and moderate-income households cannot afford the \$1,500 to \$2,000 per month rent that can be paid by groups of students or young adults.

In these communities are large, long-developed single-family zoning categories that have become extremely nuanced over time. Collapsing some of these districts into more flexible zones that permit a wider range of uses, lot sizes, and housing types will increase the capacity of existing neighborhoods at a manageable rate. Expanded administrative approval supported by police power ordinances to regulate nuisances may be needed in order to get them built.

It's not just our larger cities that are growing in Michigan. There are several small towns and rural communities in the state that are feeling the pressures of growth – especially those on the fringes of larger metropolitan markets. Communities like Oxford, Middleville, and Vicksburg are increasingly experiencing new housing demand, often driven by job growth, that challenges the local identity of a small, rural community.

Communities in this type of context are often currently planning for suburban-style growth consisting of mostly individual homes on larger lots. Yet, with the amount of housing demand these communities are experiencing, suburban growth patterns can quickly overtake the formerly rural environment and transform it into a chain of subdivisions where little of the original community identity remains. Lack of exposure to attractive, well-designed attached housing formats can lead to resistance to their implementation from existing residents, so form and site standards can offer assurance that the community's most valued physical characteristics will be preserved. Pairing these with expanded administrative approval and eliminated elected approvals allows the process to deliver those results within a predictable cost range for the developer.



TRANSITIONAL MARKETS

While there are quite a few local and regional growth markets in Michigan, there are even more housing markets in transition. This transitional market context includes those communities experiencing a shift in population that is not easily accommodated by the existing housing supply. For example, Sutton’s Bay in the Leelanau Peninsula has experienced a significant increase in housing despite a declining population, signaling an increasing reliance on seasonal and service industries. Very often, communities in these market contexts have not historically planned or zoned for housing types other than single-family homes.

Many single-family homes in these communities are aging and may require significant rehab or repair costs. In markets where there is a growing demand for seasonal homes, it is often higher-income earners buying these properties as second homes because they have the available resources to improve the properties to modern standards. Meanwhile, the local workforce is not able to compete for the

limited existing housing stock and does not earn enough to support the cost of new construction. Allowing mixed uses and multifamily residential development in commercial districts reduces the transportation obligation imposed on the workforce and also allows for a realistic and sensible reduction in parking requirements, while missing middle formats can offer pleasant and fair housing options for service and essential workers with growing families.

In communities such as Grayling, Roscommon, and Lexington, on the other hand, expansion in the moderate- and middle-income manufacturing and production activities that underpin much of their employment base has not been matched by increases in population, suggesting that workers are enduring long commutes and that a whole range of housing formats would deliver a return on investment.

These communities are poised to become new growth markets and will shortly be faced with the conflict between preserving rural character and chopping it up into

lawns. These communities will benefit from planning for new compact neighborhoods with small lots, attached housing, and strong performance standards that allow for the integration of neighborhood commercial and service establishments. Revising "standard" development patterns also assists communities with lower costs of infrastructure and the ability to better manage service delivery.

There are also places where the number of jobs are holding steady in the face of population decline, pointing again to a mismatch between housing that is desirable and affordable, and the housing that is available. Sturgis and Sault Ste. Marie both fit this pattern, which is supported by data showing an increase in housing units despite a decrease in population. This is an opportunity for missing middle housing formats. Re-purposing space in commercial districts for residential use and a flexible approach to nonconformities can help achieve additional dwellings through adaptation rather than new construction.

REVITALIZATION MARKETS

Several market contexts in Michigan have experienced high growth trajectories in previous decades but have since lost significant population and are now dealing with legacy infrastructure, vacant parcels, and sometimes blighted homes. These market types, with communities that include regional anchors like Port Huron as well as inner-ring suburbs like Lincoln Park, can offer significant opportunities to increase homeownership and support various housing types. However, there tends to be a significant gap between the cost of new construction and local appraised values where little supply has been built in recent years. Because these markets are characterized by a simultaneous decline in jobs and population, they are often looking to attract new investment while also working to ensure that existing residents are not displaced. Pre-approved plans and expanded administrative review can help bring the cost of development down to address the appraisal gap, while a more flexible approach to nonconformities can help these communities make the most of their significant existing investments.

Region	Community	Pop. Change (2000-2019)	No. Jobs Change (2002-2017)	No. Housing Units Change (2000-2019)	Market Type
SW	Vicksburg	42.0%	-13.0%	35.0%	Growth
W	Middleville	25.0%	14.0%	23.0%	Growth
NW	Traverse City	7.0%	19.0%	8.6%	Growth
UP	Marquette	6.2%	-2.0%	5.5%	Growth
SE	Ann Arbor	5.8%	6.6%	7.7%	Growth
W	Grand Rapids	0.3%	-5.9%	4.7%	Transition/Growth
NW	Sutton's Bay	-1.3%	-63.0%	45.0%	Transition
SE	Oxford	-2.9%	88.0%	3.5%	Growth
C	Sturgis	-4.0%	8.4%	6.3%	Transition/Growth
SE	Lincoln Park	-8.3%	-33.0%	-7.6%	Revitalization
TH	Lexington	-8.5%	198.0%	6.8%	Transition/Growth
NE	Roscommon	-8.5%	157.0%	10.0%	Transition/Growth
TH	Port Huron	-10.0%	-38.0%	-2.3%	Revitalization
UP	Sault Ste. Marie	-18.0%	9.7%	1.9%	Transition/Revitalization



Where Do We Go From Here?

This Toolkit for updating local zoning codes is designed to include a variety of tools. Not every tool will work equally well in every housing market, just as one housing type will not be the best fit for every type of household. Local politics and priorities are an important element of success. The subject of housing is complex. Increasing housing supply will require a mix of fixes. Additional work to consider is included here.

FIND YOUR ALLIES

Without a coalition of supporters, it can be difficult to achieve lasting and meaningful success. We recommend starting with some very simple question questions: Who is most impacted by the current housing market in your area? Are local businesses having trouble finding employees that can afford to live nearby? Are local schools struggling to attract teachers due to a high cost of living or lack of available housing? Or perhaps some schools are losing students as low- and moderate-income families can no longer remain in neighborhoods where housing prices have increased beyond their budgets. Are local faith leaders receiving an increasing number of requests for housing support from individuals in the community? What are the local Realtors seeing in the market?

The answers to these questions will help to inform who should be a part of an initial coalition of partners. Additional partners may include local or regional non-profits, community foundations, the United Way, and perhaps County administrative staff. Convene this group of potential partners and talk about the experiences they are having. Look for commonality among the stories. Discuss within the group where they perceive the greatest pain points to be.

Many communities across the State are experiencing a significant mismatch between the types of housing or price points available and the average income of middle-class families. Achieving some agreement among your coalition of partners to pursue a local or county-wide Housing Needs Assessment can be an excellent way to obtain up-to-date data to help the group better understand the specific needs within the local/regional housing market.

With a strong coalition of dedicated community partners and a solid set of data that illustrates the details of the local/regional housing needs, your community is ready to start tackling zoning reform.



FRAME YOUR TARGET MARKET

Each zoning tool outlined in this toolkit can serve slightly different market segments. Reducing minimum lot area and widths can help to make homeownership more affordable for higher-income renters or downsizing retirees. Collapsing zone districts and coding for missing middle housing types can support new housing choices in existing neighborhoods. These choices can serve single parents, or young couples without kids, or other smaller households who don't need a large single-family home on its own lot. Which of these market segments are most important in your community? And which of these market segments might have a strong group of local advocates who are willing to speak up about the need for more housing choices in your community?



Photo from Bridge Michigan file

When we can relate to the people who would benefit from these changes, zoning reform concepts often become less abstract and more personal. The local third grade teacher who's been commuting 45 minutes to work every day because there are no housing options close enough to the school where she works may engender some support for allowing accessory dwelling units or mixed-use buildings. Define who you are intending to serve with proposed zoning changes and how those individuals are supporting your community today.

ILLUSTRATE YOUR PROPOSALS

Many people have a certain set of experiences that frame their perspectives on any number of issues. If the experiences that someone can immediately recall with a duplex or a neighborhood apartment building are negative, this can color their entire perspective of your proposal. Instead of allowing those previous experiences to create a mental model for your proposed zoning changes, provide several illustrations and images that represent the specific changes you are trying to make.

This means that when you are drafting your local code amendments, seek out attractive images that are highly representative of what will be in your draft ordinance amendment. Use those images liberally to talk about the proposal and tie them back to the market segments you're hoping to support.

Also consider making at least two examples of a site plan to illustrate what the planning commission might expect to receive from an applicant in the future. How will the building be sited on the lot under your proposed standards? Where will parking be located (if required)? How does the building size match up with other buildings in the vicinity? How much green space is likely to be set aside?

ORGANIZE YOUR SUPPORTERS

It's very important that you continue to keep your original allies informed and engaged throughout the process. It is very rare that local staff can effectively champion these changes without the support of local advocates in the community. Be sure to set up regular opportunities to share the progress on local zoning reform, take feedback, and encourage supporters to attend meetings with the planning commission and speak up on behalf of the work the community has done.

Future Work

SYSTEMS CHANGE IS NECESSARY

The *Zoning Reform Toolkit* is a first step in a multi-faceted effort to equip municipal leaders with the tools necessary to transform the land use regulatory system. The 15 tools identified in this publication are intended to provide actionable steps to modify municipal codes so as to encourage the development of more housing units, and are foundational to subsequent actions. But zoning code amendments alone will not solve the national, or Michigan's, housing crisis - a protracted, thoughtful, integrated, and deliberative approach is required.

While MAP, along with so many of our partners, understands the past zoning and development practices that have shaped where we are today, there remains intense resistance to solutions that include adding density or flexible housing models in historically single-family neighborhoods. This resistance comes at all levels, from residents and local elected officials to gun-shy planners and change-averse state legislators.

There is a knowledge gap about affordability, and why, when so many in past generations could afford to own, or even rent, safe and decent housing, it is now out of reach in many communities to all but the wealthiest. Many municipalities with largely or wholly single-family housing stock ask why here, why not in the next community over, and Not In My Back Yard (NIMBY) syndrome is prevalent nearly everywhere.

SHARING SOLUTIONS

The first step is to get this Toolkit into the hands of planners, local leaders and other municipal professionals; provide training about the tools; identify which tools are most appropriate in a given community; and make available direct technical assistance to guide local implementation. Solutions will vary by community, but lessons can be learned by all and shared across Michigan to build awareness, interest, and enthusiasm for zoning reform.

Many communities, particularly small towns, townships and rural areas, have limited capacity because many rely on volunteers, part-time staff, or individuals who must wear several different hats in their service. They lack awareness of the vastness of the challenge that lies before us. These communities must be reached, too, because regional solutions will be more effective in solving the housing crisis.

Equipping professional planners with the knowledge and skills needed to implement this Toolkit's recommendations is also critical to the success of its policy suggestions. Direct funding to assist local governments for master planning and code reform is critical if we hope to see transformative change.

RECOMMENDED READING

- The Color of Law: A Forgotten History of How Our Government Segregated America – Richard Rothstein
- Evicted: Poverty and Profit in an American City – Matthew Desmond
- How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood – Peter Moskowitz
- The Affordable City: Strategies for Putting Housing Within Reach – Shane Phillips
- Fixer Upper: How to Repair America's Broken Housing System – Jenny Schuetz
- Arbitrary Lines - Nolan Gray

SHORT-RANGE SOLUTIONS

1. Training

Many Michigan municipalities do not know where to begin, do not employ professional planning staff or do not have capacity, and may lack the political will or technical knowledge to accomplish meaningful change.

- A. Develop a workshop series for **elected and appointed leaders** on the following topics:
 - I. Housing Needs Assessments. Training should cover why they are important, key elements, what data is used and where to find it, and how to analyze the data to gauge housing needs, identify gaps, and highlight trends.
 - II. Zoning and regulatory changes to create more housing. How to determine what is right for your community, an overview of the Toolkit interventions, and how to develop a game plan for action.
 - III. Managing public meetings for development success. Learn how inclusive community engagement ensures true representation; how to
- B. Develop a high level, technical, professional level workshop curriculum for **professional planners, zoning administrators, city managers, township supervisors and administrators, and other municipal professional staff**. Objectives of this course are to introduce process and implementation solutions to create policy and develop impactful codes.
- C. Develop a Train the Trainer curriculum for Michigan **private practice planners**. The consulting community serves municipalities that have limited capacity and often do not employ a professional planner, or they deliver specialized planning and zoning services when a municipality does not have in-house expertise. In either case, consultant planners can provide a corps of professionals ready to take on zoning reform initiatives, and this course will prepare them to take the next steps.

have difficult conversations; how to respond when community opposition is strong but the project is great; and how to educate and inform the community about the value and benefit of expanding the housing supply.



2. Technical Assistance and Funding

Once understood, through training, that even modest changes to regulations can open up local housing supply, many communities will need technical and financial assistance to move forward.

- A. Develop and launch a technical assistance program that delivers professional assistance and direct guidance to communities that are ready to begin. This support can include assistance with identifying solutions best suited to their needs, including providing master plan support, drafting ordinance changes, and guidance during the local adoption process.
- B. Explore funding sources to deliver technical assistance, including local ARP funds, MSHDA, MEDC / RRC, others.
- C. Educate communities about additional development barriers (beyond funding) such as infrastructure and utility needs that they need to understand to assist in facilitating development.
- D. Familiarize communities with the issues development and redevelopment sites face so that they can provide developers and investors with a transparent picture of the issues, and what resources are available to assist in mitigating those barriers (costs, technical expertise).
 - Pre-development Coaching (how to get through the local process in a fairly seamless manner)
 - Available incentives

3. Housing Needs Assessment

- A. While some Michigan communities have conducted housing needs assessments to determine gaps in local housing supply, far more have not. A local housing needs assessment is a data rich analysis of local (and regional) conditions that can identify gaps or needs. Community leaders must have a basic understanding of the situation – the housing needs for their discreet community - to have meaningful discussions, develop goals, and adopt a policy and action plan.
- B. Develop a Housing Needs Assessment Guidebook, a "How To" guide for local professionals to develop their own actionable plan, based on local data, demographics, and goals.
- C. Develop and disseminate a DIY Housing assessment template with step-by-step instructions on data, demographics, housing audit, population projections, and more.
- D. Test assessment findings by stress-testing findings with development and lending communities.
- E. Conduct a scenario planning exercise. Based on the identified housing gaps in a community or region, local planners and officials should feel empowered to model growth under a business as usual framework as well as a preferred development pattern framework. Using the data from the housing needs assessment to inform the building types and price points will help to establish a much more accurate baseline of medium and long range growth scenarios.

MID-RANGE SOLUTIONS

1. Communications Campaign

Campaign elements should include communications strategies and suggested messaging for local leaders. A statewide effort would send a powerful message and assist with influencing change. A comprehensive, protracted, and multi-layered campaign could amplify the need for increased housing supply, articulate the economic and social benefits, and reinforce solutions embedded in this product, along with a variety of complementary interventions provided by a range of stakeholders (state agencies, governmental organizations, and NGOs).

- Develop a coalition, or expand the Housing Michigan Coalition to collectively advocate for the development of a statewide communications campaign for increasing housing supply generally, as well as providing for a much greater range of housing types and price points.

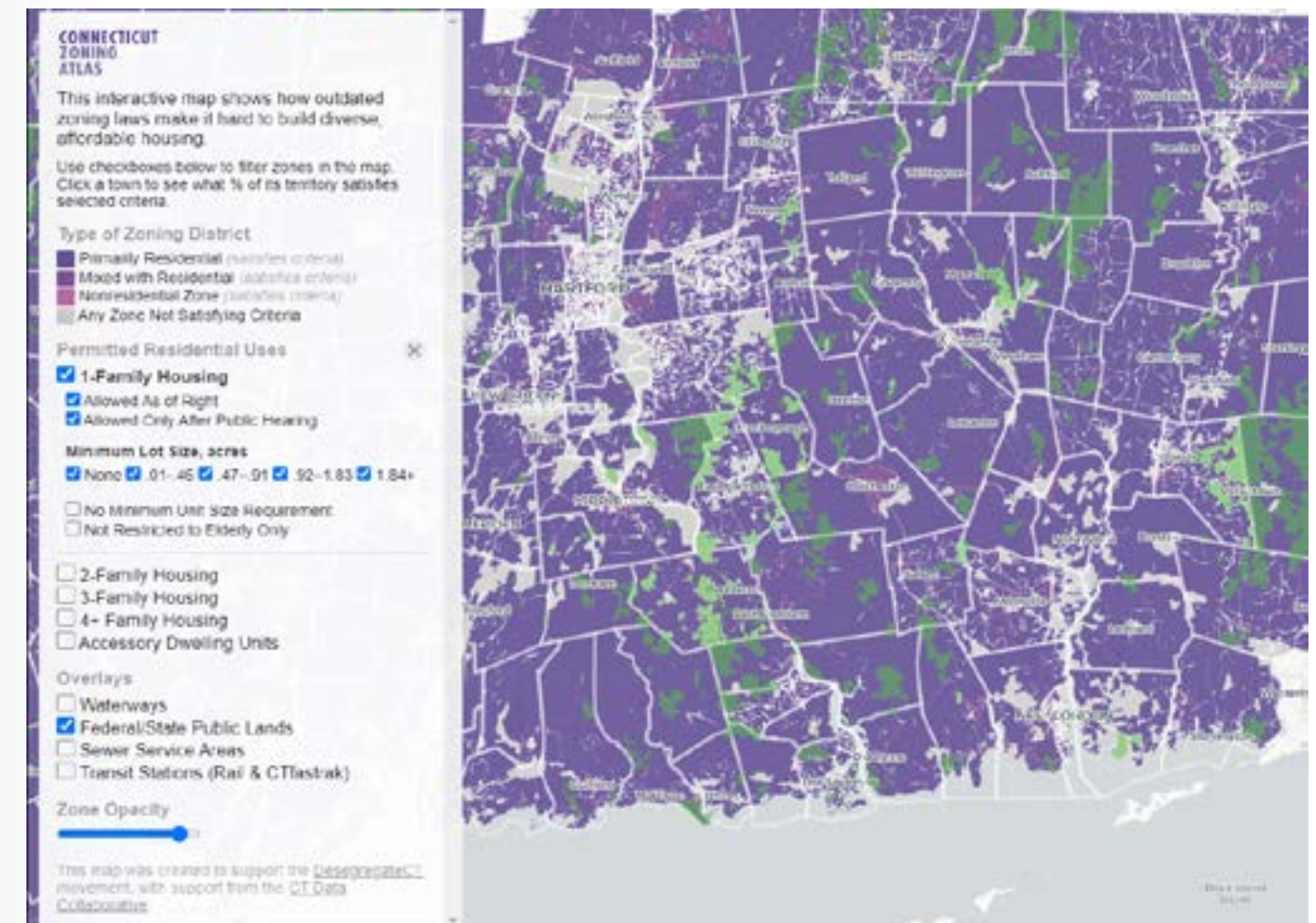
- Develop “regional rapid response teams” and train them to rally at municipal public hearings for missing middle and multi-family housing developments to counter neighborhood defender/NIMBY voices at meetings. Equip advocates with data and talking points about the value of increasing housing supply for all.
- Identify state agency leaders who understand the urgency of the issue from a social, economic, and global competitive perspective.

2. Statewide Zoning Atlas

A zoning atlas, the auditing and display of zoning ordinances and maps at a state or regional level, can provide data to help us understand how much land is zoned for what purpose. The Connecticut Zoning Atlas revealed that the vast majority of zoned land in that state was for single family use, and that only 2% of the land allows multiple family housing over 4 units as a use by right. A statewide Michigan Zoning Atlas, or one



1. TECHNICAL ASSISTANCE 2. MENTORSHIP 3. PRE-DEVELOPMENT 4. DEVELOPMENT 5. POST DEVELOPMENT



piloted in one of the State's Planning and Development Regions, would provide the data necessary to make better land use decisions, could be used as an element of a robust communications toolkit or campaign, and could provide the justification that many elected leaders and community professionals need to make the case for changes to local policies and ordinances that will expand housing supply. Perhaps most importantly, it could be used as a tool to influence state legislators to advance meaningful legislative reforms to equalize housing accessibility.

LONG-RANGE SOLUTIONS

Explore State Legislative Changes

From California and South Carolina to Oregon and Utah, state legislatures understand that to really drive the expansion of housing supply, state laws must change. A variety of solutions have been advanced, including mandating affordable housing action plans (Nebraska), requiring ADUs as permitted uses (Utah), and a sweeping package of bills that allow ADUs to be by right, disallow minimum parking standards, and eliminate the term "character", which can serve as a cudgel to deter anything other than single family zoning (Connecticut). Decades of misunderstood zoning policy, not just in Michigan but everywhere, have restricted housing supply in many ways.

Much of the power to regulate development falls to local government. While most land use planning and zoning happens at the local level, state level actions can motivate or mandate local government to action. Some municipalities will never implement meaningful changes to local regulations without state statutory change. The stakes are high, but the timing is right, as business leaders understand that inadequate housing supply is stifling business growth.

- A. Research the legislative solutions advanced by other states, create a matrix to ease analysis, and determine which solutions might have scalability in Michigan.
- B. Draft sample bill language (MAP Law Committee) and convene a working group with Michigan Municipal League and Michigan Townships Association.
- C. Coordinate a broad coalition of stakeholders or partner with the existing Housing Michigan Coalition.
- D. Establish a strategy to move bill(s) through the legislature and Governor's office that would best suit Michigan's communities and our housing needs.

Conclusion

Whether it is through the lens of empowering capitalism to meet market demands, affirmatively furthering fair housing, or a sincere desire to expand housing stock for existing and new residents, arguably nearly all zoning ordinances in Michigan could use a tune-up. The Zoning Enabling Act requires a community master plan to serve as the basis for local zoning. Master Plan goal statements such as "provide a variety of different price points and housing types", "be age-friendly", or "provide affordable housing for young families" are meaningless if a community's zoning ordinance has not been updated to implement these policies. Achieving community aspirations requires action. Modifying local regulations to increase housing supply and choice is one way to improve livability and ensure that all people in Michigan have a place to call home.



Endnotes

- 1 Housing Challenges Threaten Our Economic Growth. Networks Northwest, 2017. <https://www.networksnorthwest.org/userfiles/filemanager/6315/>.
- 2 Kenneth T. Rosen et al. Housing is Critical Infrastructure: Social and Economic Benefits of Building More Housing. National Association of Realtors, 2021. pg. 1-18. <https://cdn.nar.realtor/sites/default/files/documents/Housing-is-Critical-Infrastructure-Social-and-Economic-Benefits-of-Building-More-Housing-6-15-2021.pdf>.
- 3 Ibid.
- 4 "Forecasting State and National Trends in Household Formation and Homeownership," Urban Institute, 2022, <https://www.urban.org/policy-centers/housing-finance-policy-center/projects/forecasting-state-and-national-trends-household-formation-and-homeownership/michigan>.
- 5 Michigan Homeownership Study: Understanding and Advancing Homeownership in Michigan. RKG Associates Inc. for MSHDA. 2019. <https://www.michigan.gov/mshda/-/media/Project/Websites/mshda/developers/housing-plan/MSHDAMichiganHomeownershipStudyFINAL.pdf?rev=ceb725310abc47adbdeea0694a7b0826&hash=30FC51246B66983CC6001E7C2B2447F2>.
- 6 "Michigan," National Low Income Housing Coalition, accessed May 5, 2022, <https://nlihc.org/housing-needs-by-state/michigan>.
- 7 There are other factors that also pinch housing supply, including short-term rentals, ownership of second homes, pricing and bidding by larger entities such as REITs and equity firms, and other issues. These topics will not be addressed in this Toolkit.
- 8 Chris Arnold, "There's never been such a severe shortage of homes in the U.S. Here's why," Blue Lake Public Radio, March 29, 2022, <https://www.npr.org/2022/03/29/1089174630/housing-shortage-new-home-construction-supply-chain>.
- 9 "Housing Challenges Threaten Our Economic Growth," Home Builders Association of Michigan (June 2017): 1-32, <https://hbaofmichigan.com/media/1780/KebloGBPnqRr.pdf>.
- 10 "Building Materials Prices Start 2022 with 8% Increase," National Association of Home Builders, April 15, 2022, <https://www.nahb.org/blog/2022/04/building-materials-prices-start-2022-with-8-percent-increase>.
- 11 National Association of Home Builders to The President of the United States (April 27, 2022): 1-353, <https://www.nahb.org/-/media/NAHB/advocacy/docs/top-priorities/biden-letter-april-2022.pdf>.
- 12 Robert W. Wassmer and Joshua A. Williams, "The Influence of Regulation on Residential Land Prices in United States Metropolitan Areas," Cityscape: A Journal of Policy Development and Research, no. 23-1 (2021): 1-28, <https://www.huduser.gov/portal/periodicals/cityscpe/vol23num1/ch1.pdf>.
- 13 Jacqueline Rabe Thomas, "Separated by Design: Why Affordable Housing Is Built in Areas With High Crime, Few Jobs and Struggling Schools," ProPublica, November 25, 2019, <https://www.propublica.org/article/separated-by-design-why-affordable-housing-is-built-in-areas-with-high-crime-few-jobs-and-struggling-schools>.
- 14 "Shelter" is listed alongside air, water, food, sleep, and clothing for a person's basic needs to be met in Maslow's Hierarchy of Needs. Abraham Maslow theorized that people are motivated by five basic category of needs. The first category, that is foundational to the others, is mentioned here.
- 15 Michael Novogradac, "Once Again, Homeownership Gets Far More Tax Subsidies than Rental Housing," Novogradac Journal of Tax Credits, no. 9-7 (July 2, 2018): <https://www.novoco.com/periodicals/articles/once-again-homeownership-gets-far-more-tax-subsidies-rental-housing>.
- 16 The Michigan Homestead Property Tax Credit provides a credit to homeowners and renters whose household resources are \$60,000 or less.
- 17 Recent practices to develop single-family build-to-rent housing by national homebuilders are also affecting the homeownership dynamic. https://www.cbs.com/shows/60_minutes/video/farKJW0tIclhgYGIsr_DIcnOPtGTQu3/lack-of-new-construction-and-corporate-landlords-contributing-to-skyrocketing-rent/?fbclid=IwAR27zMfkezFkelicrhQY_3Y9HPj9GIxruBRBuv--Ld_PA9EyYcNPRB1ks4M.
- 18 William A. Fischel, "Fiscal Zoning and Economists' Views of the Property Tax," Lincoln Institute of Land Policy (2013): 23, https://www.lincolninst.edu/sites/default/files/pubfiles/2355_1695_Fischel_WP14WF1.pdf.
- 19 Higher Density Development: Myth & Fact. Urban Land Institute. 2005. https://uli.org/wp-content/uploads/ULI-Documents/HigherDensity_MythFact.ashx.pdf.
- 20 Tony Semerad, "'Yes' in my backyard? Study shows new Salt Lake County apartments actually boost neighbors' home values," The Salt Lake Tribune, February 22, 2021, <https://www.sltrib.com/news/2021/02/22/yes-my-backyard-study/>.
- 21 Tony Semerad, "'Yes' in my backyard? Study shows new Salt Lake County apartments actually boost neighbors' home values," The Salt Lake Tribune, February 22, 2021, <https://www.sltrib.com/news/2021/02/22/yes-my-backyard-study/>.
- 22 The analysis ranked the current level of walkable urbanism, based on the share of office, retail, and rental multifamily occupied square footage in WalkUPs relative to the metro region as a whole.
- 23 Tracy Hadden Loh, Christopher B. Leinberger, and Jordan Chafetz, "Foot Traffic Ahead," The George Washington University (2019): 1-46, <https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/a/326/files/2019/06/FTA19.pdf>.
- 24 Christopher B. Leinberger and Patrick Lynch, "The WalkUP Wake-Up Call: Michigan Metros," The George Washington University (2015), <https://smartgrowthamerica.org/wp-content/uploads/2016/08/walkup-wake-up-call-michigan.pdf>

25 Steve Davis, "Cities subsidizing sprawl will miss out on the benefits of walkability," Smart Growth America, June 25, 2019, <https://smartgrowthamerica.org/cities-subsidizing-sprawl-will-miss-out-on-the-benefits-of-walkability/>.

26 "S1101 Households and Families," United States Census Bureau, accessed May 5, 2022, <https://data.census.gov/cedsci/table?q=household%20makeup%20michigan&g=0100000US&tid=ACSST5Y2020.S1101>.

27 Frances Alonzo, "Census Bureau Releases New Estimates on America's Families and Living Arrangements," United States Census Bureau, November 29, 2021, <https://www.census.gov/newsroom/press-releases/2021/families-and-living-arrangements.html>.

28 Ibid.

29 "DP02 Selected Social Characteristics in the United States," United States Census Bureau, accessed May 5, 2022, <https://data.census.gov/cedsci/table?q=household%20makeup%20michigan&g=0100000US&tid=ACSDP5Y2020.DP02>.

30 Tracy Hadden Loh and Evan Farrar, "The Great Real Estate Reset," Brookings Institute, December 16, 2020, <https://www.brookings.edu/essay/trend-2-americas-demographics-are-transforming-but-our-housing-supply-is-not/>.

31 Shannon Guzman, "Multigenerational Housing on the Rise, Fueled by Economic and Social Changes," AARP, June 17, 2019, <https://www.aarp.org/ppi/info-2019/multigenerational-housing.html>. People living with their spouse or partner, with or without children, account for 54% of households. Households with children under the age of 18 account for 26% or 1 in 4 households.

32 "Historical Household Tables," United States Census Bureau, November 22, 2021, <https://www.census.gov/data/tables/time-series/demo/families/households.html>.

33 "Make Room for 'Making Room'," AARP, February 2019, <https://www.aarp.org/livable-communities/housing/info-2018/making-room-housing-for-a-changing-america.html>.

34 It should be noted that the COVID-19 pandemic has had an impact on housing, community, and transportation preferences. A survey conducted by the Pew Research Center found that an increased number of Americans now prefer larger homes in more spread out communities to smaller homes in walkable communities. When asked in September 2019, 53% of Americans said they would prefer to live in a community where the houses are "larger and farther apart, but schools, stores, and restaurants are several miles away" versus 47% preferring to live in a community where the houses are "smaller and closer to each other, but schools, stores, and restaurants are within walking distance." When asked the same question in July 2021, 60% of those polled preferred larger homes in more sprawling communities to smaller homes in walkable communities. It is too soon to say whether these preferences will revert to pre-pandemic trends or if they represent a fundamental shift in preferences.

35 Making Room: Housing for a Changing America. AARP. 2019. <https://www.aarp.org/content/dam/aarp/livable-communities/livable-documents/documents-2019/making-room-web-singles-010819.pdf>.

36 Danielle Arigoni, "Preparing for an Aging Population," AARP, January 2020, <https://www.aarp.org/livable-communities/about/info-2018/aarp-livable-communities-preparing-for-an-aging-nation.html>.

37 Michelle R. Davis, "Despite Pandemic, Percentage of Older Adults Who Want to Age in Place Stays Steady," AARP, November 18, 2021, <https://www.aarp.org/home-family/your-home/info-2021/home-and-community-preferences-survey.html>.

38 "2019 Home Accessibility," United States Census Bureau, October 8, 2021, <https://www.census.gov/library/visualizations/2021/demo/2019-home-accessibility.html>.

39 "Characteristics of New Housing," United States Census Bureau, accessed May 5, 2022, <https://www.census.gov/construction/chars/highlights.html>.

40 Mousumi Sarkar, "How American Homes Vary By the Year They Were Built," United States Census Bureau (June 2011): 1-6, <https://www.census.gov/content/dam/Census/programs-surveys/ahs/working-papers/Housing-by-Year-Built.pdf>.

41 Emily Badger and Quoc Trung Bui, "Cities Start to Question an American Ideal: A House With a Yard on Every Lot," The New York Times, June 18, 2019, <https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html>.

42 Brad Broberg, "The 2020 NAR Community Preference Survey," National Association of Realtors, October 30, 2020, <https://www.nar.realtor/on-common-ground/the-2020-nar-community-preference-survey>.

43 Michelle R. Davis, "Despite Pandemic, Percent of Older Adults Who Want to Age in Place Stays Steady," AARP, November 18, 2021, <https://www.aarp.org/home-family/your-home/info-2021/home-and-community-preferences-survey.html>.

44 Daniel G. Parolek of Opticos Design, Inc. has done a great deal of work around missing middle housing. <https://opticosdesign.com/>

45 Manny Garcia, "Across 26 Metro Areas, Residents Largely Support Allowing Missing Middle Homes in Residential Neighborhoods," Zillow, April 11, 2022, <https://www.zillow.com/research/modest-densification-zhar-30934/>.

46 "DP04 Selected Housing Characteristics," United States Census Bureau, accessed May 5, 2022, <https://data.census.gov/cedsci/table?q=0400000US26&y=2020&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP04>.

47 Housing Challenges Threaten Our Economic Growth. Home Builders Association of Michigan. 2017. <https://www.networksnorthwestrealst.org/userfiles/filemanager/6315/>.

48 Janna, "Northern Michigan Brewery Buys Motel to House Staff Amidst Affordable Housing Shortage," 97.9 WGRD, April 22, 2022, https://wgrd.com/northern-michigan-brewery-buys-motel-to-house-staff-amidst-affordable-housing-shortage/?utm_source=tsmclip&utm_medium=referral&fbclid=IwAR33UMxkYj6GJhy5YopmCOJ4mf1ckzboLCS7jE4vT2dw32XiKnUsAtK-XM.

- 49 "Housing Shortage Tracker," National Association of Realtors, accessed May 5, 2022, <https://www.nar.realtor/research-and-statistics/housing-statistics/housing-shortage-tracker>.
- 50 Lindsay Moore, "Millennials are looking for dream homes, but Michigan's competitive housing market keeps them out of reach," MLive Media Group, April 11, 2021, <https://www.mlive.com/public-interest/2021/04/millennials-are-looking-for-dream-homes-but-michigans-competitive-housing-market-keeps-them-out-of-reach.html>.
- 51 Edward Glaeser and Joseph Gyourko, "The Economic Implications of Housing Supply," *Journal of Economic Perspectives*, no. 32-1 (Winter 2018): 3, <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.32.1.3>. Hsieh and Moretti (2017) have estimated that real GDP could be nearly 9 percent higher if there were plentiful new construction in just the three high productivity markets of New York, San Francisco, and San Jose.
- 52 Edward Glaeser, "Reforming land use regulations," Brookings Institution, April 24, 2017, <https://www.brookings.edu/research/reforming-land-use-regulations/>. See also: Vicki Been et al. *Supply Skepticism: Housing Supply and Affordability*. NYU Furman Center. 2018. https://furmancenter.org/files/Supply_Skepticism_-_Final.pdf.
- 53 Rashawn Ray, Andre M. Perry, David Harshbarger, Samantha Elizondo, and Alexandra Gibbons, "Homeownership, racial segregation, and policy solutions to racial wealth equity," Brookings Institution, September 1, 2021, <https://www.brookings.edu/essay/homeownership-racial-segregation-and-policies-for-racial-wealth-equity/>. This Brookings study describes in detail the challenges and solutions to racial wealth equity.
- 54 Michael C. Lens and Paavo Monkkonen, "Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income?," *Journal of the American Planning Association* (December 28, 2015): 5-21, <https://cayimby.org/wp-content/uploads/2020/01/Lens-and-Monkkonen-Regulations-and-Segregation-2016-JAPA.pdf>.
- 55 Salim Furth, "Light-Touch Density and the State's Role in Zoning," Mercatus Center George Mason University, February 7, 2022, <https://www.mercatus.org/publications/urban-economics/light-touch-density-and-state%E2%80%99s-role-zoning?msclid=4069acd7bf1911ec889aadf34b5653cf>.
- 56 Solomon Greene and Ingrid Gould Ellen, "Breaking Barriers, Boosting Supply," *Urban Institute* (September 2020): 1-23, <https://www.urban.org/sites/default/files/publication/102963/breaking-barriers-boosting-supply.pdf>. New Jersey Supreme Court's 1975 decision in *Southern Burlington County N.A.A.C.P. v. Mount Laurel Township* identified the local exclusionary zoning practices that created economic segregation across the state. The court justified intervention on the basis that many little decisions, if not corrected, accumulate and lead to big consequences. More recently, the US Supreme Court held in *Texas Department of Housing and Community Affairs v. Inclusive Communities* that local zoning decisions can have a "disparate impact" on racial and ethnic minorities, violating the Fair Housing Act, even without explicit discriminatory intent.
- 57 "What is State Preemption?," Planetizen, accessed May 5, 2022, <https://www.planetizen.com/definition/state-preemption>.
- 58 Jason Sorens, "Changing Minds on Restrictive Zoning: How to Unclog America's Home Supply," *Manhattan Institute Issue Brief* (April 2022) <https://media4.manhattan-institute.org/sites/default/files/sorens-changing-minds-restrictive-zoning.pdf>

- 59 Jerusalem Demsas, "How to Convince a NIMBY to Build More Housing," *Vox*, Feb. 24, 2021; see: <https://www.vox.com/22297328/affordable-housing-nimby-housing-prices-rising-poll-data-for-progress>
- 60 M. O'Neil, and J. Sweetland. *Piecing It Together: A Framing Playbook for Affordable Housing Advocates*. (2018) Washington, DC: FrameWorks Institute. see: https://www.frameworksinstitute.org/wp-content/uploads/2020/03/enterprise_housing_playbook.pdf
- 61 Theresa L. Miller, Emilie L'Hote, Abby Rochman, Patrick O'Shea, and Michelle Smirnova, "Communicating about housing in the UK: obstacles, openings, and emerging recommendations," *FrameWorks Institute* (November 21): 1-26, <https://www.frameworksinstitute.org/wp-content/uploads/2021/11/uk-housing-strategic-brief-2021.pdf>.
- 62 "Moving from Concern to Concrete Change," *FrameWorks Institute* (January 2021): 1-11, https://www.frameworksinstitute.org/wp-content/uploads/2021/05/Reframing-Social-Housing-Memo_FINAL_logo.pdf.
- 63 "Piecing it Together," *FrameWorks Institute* (2018): 1-21, https://www.frameworksinstitute.org/wp-content/uploads/2020/03/enterprise_housing_playbook.pdf.
- 64 David Greenwald, "Monday Morning Thoughts: Why Declining Enrollment is Something of a Concern to This Community," *The People's Vanguard of Davis*, September 13, 2021, <https://www.davisvanguard.org/2021/09/monday-morning-thoughts-why-declining-enrollment-is-something-of-a-concern-to-this-community/>.
- 65 Dr. David Allen. *MSHDA's Michigan Statewide Housing Needs Assessment*, April 2019. See: <https://www.michigan.gov/mshda/-/media/Project/Websites/mshda/developers/housing-plan/MSHDAStatewideHousingNeedsweb.pdf?rev=91271d4107a14f0695c929d9399044f4&hash=D7A5D0F1C0561D441DAB73F3C2E6C83C>
- 66 Frances Alonzo, "Census Bureau Releases New Estimates on America's Families and Living Arrangements," *United States Census Bureau*, November 29, 2021, <https://www.census.gov/newsroom/press-releases/2021/families-and-living-arrangements.html>.
- 67 *Making Room: Housing for a Changing America*. AARP.
- 68 Emily Badger and Quoc Trung Bui, "Cities Start to Question an American Ideal: A House With a Yard on Every Lot." *New York Times*, June 18, 2019, <https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html>.
- 69 Arnab Chakraborty, "Housing Diversity Makes Communities More Resilient against Economic Downturns," *Housing Matters*, April 29, 2020, <https://housingmatters.urban.org/research-summary/housing-diversity-makes-communities-more-resilient-against-economic-downturns>.
- 70 "Don't Put it Here!": Does Affordable Housing Make Property Values Decline? *The Center for Housing Policy*. https://furmancenter.org/files/media/Dont_Put_It_Here.pdf.

71 Typically, the use that will be generating the noise is responsible for mitigation. New residential units are not usually required to account for block noise from commercial uses, but standards do exist to improve livability. See: “Acoustic comfort,” U.S. Green Building Council, accessed May 5, 2022, <https://www.usgbc.org/credits/homes-mid-rise/v4/eqpc47>.

72 “Walking & cycling: the economic benefits,” Transportation for London (accessed May 5, 2022) 1-29, <https://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf>

73 Arnab Chakraborty, “Housing Diversity Makes Communities More Resilient against Economic Downturns,” Housing Matters, April 29, 2020, <https://housingmatters.urban.org/research-summary/housing-diversity-makes-communities-more-resilient-against-economic-downturns>.

74 Eric Scharnhorst. Quantified Parking: Comprehensive Parking Inventories for Five U.S. Cities, July 2018. Research Institute for Housing America. p.1. see: https://www.mba.org/docs/default-source/research---riha-reports/18806-research-riha-parking-report.pdf?sfvrsn=d59a2d33_0

75 Ibid.

76 ULI. Parking Policy Reform: Implications for Municipalities.

77 “Parking Mandates Map,” Parking Reform Network, accessed May 5, 2022, <https://parkingreform.org/resources/mandates-map/>.

78 MCL 125.3201.

79 Anika Singh Lemar. The public hearing process for new housing is broken. Here's how to fix it. May 4, 2022. See: <https://www.brookings.edu/blog/the-avenue/2022/05/04/the-public-hearing-process-for-new-housing-is-broken-heres-how-to-fix-it/?fbclid=IwAR2ccO3p40MczQphn8w22vxN7OsfBuO9SvyTINKPPqnF32aoUO3shZnDwJM>

80 Monica Castillo, “While festivals lead to booming tourism in Telluride, its housing market is at a crossroads,” Aspen Daily News, May 10, 2022, https://www.aspendailynews.com/news/while-festivals-lead-to-booming-tourism-in-telluride-its-housing-market-is-at-a-crossroads/article_e38b8816-0eb9-11ec-b05d-8f235377a339.html.

81 MCL 125.3501(5).

82 Redevelopment Ready Communities: Best Practices. Michigan Economic Development Corporation. 2021. <https://www.miplace.org/4a7349/globalassets/documents/rrc/rrc-best-practices.pdf>.

83 “What is smart growth?,” Smart Growth America, accessed May 5, 2022, <https://smartgrowthamerica.org/what-is-smart-growth/>.

84 Thomas J. Sullivan, “Affordable Housing Program Launches,” Citrus Heights Messenger, accessed May 5, 2022, <https://www.citrusheightsmessenger.com/articles/2021/0414-Affordable-Housing-Program-Launches/index.php?ID=10876>.

85 Mark White, “Nonconformities: Dealing With Uses, Part 2,” Planning Commissioners Journal & PlannersWeb, accessed May 5, 2022, <https://plannersweb.com/2013/10/nonconformities-part-2/>.

86 Ryan Coffey, “Understanding nonconformity: Are you 'grandfathered' in?,” Michigan State University Extension, April 4, 2013, https://www.canr.msu.edu/news/understanding-nonconformity_are_you_granfathered_in.

87 82. Be sure to seek the advice of legal counsel prior to taking any enforcement actions.



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