

Planning Commission

Michael Mitchell, Vice-Chairperson Michelle LaRose, Commissioner

Larry Fox, Chairperson Summer L. McMullen, Trustee Keith Voight, Secretary Sue Grissim, Commissioner Tom Murphy, Commissioner

Planning Commission Meeting Agenda Hartland Township Hall Thursday, July 22, 2021 7:00 PM

- 1. Call to Order
- 2. Pledge of Allegiance
- 3. Roll Call
- Approval of the Agenda 4.
- 5. **Approval of Meeting Minutes** a. Planning Commission Minutes of June 10, 2021
- Call to Public 6.
- Old and New Business 7.
 - a. Site Plan/PD #21-005 Redwood Living Planned Development (PD) Preliminary Site Plan
- Call to Public 8.
- Planner's Report 9.
- 10. Committee Reports
- 11. Adjournment

HARTLAND TOWNSHIP PLANNING COMMISSION DRAFT REGULAR MEETING MINUTES

June 10, 2021 – 7:00 p.m.

1. <u>Call to Order:</u> Chair Fox called the meeting to order at approximately 7:00 p.m.

2. <u>Pledge of Allegiance:</u>

3. <u>Roll Call and Recognition of Visitors:</u>

Present – Commissioners Fox, Grissim, McMullen, Mitchell, Murphy Absent – Commissioners LaRose, Voight

4. <u>Approval of the Agenda:</u>

A Motion to approve the June 10, 2021 Planning Commission Regular Meeting Agenda was made by Commissioner Grissim and seconded by Commissioner Murphy. Motion carried unanimously.

5. <u>Approval of Meeting Minutes</u>

- a. Planning Commission Minutes of April 8, 2021 A Motion to approve the April 8, 2021 Planning Commission Regular Meeting Minutes was made by Commissioner Mitchell and seconded by Commissioner Grissim. Motion carried unanimously.
- 6. <u>Call to Public:</u> None

7. <u>Livingston County Planning Commission Visit:</u>

Kathleen Kline-Hudson, Director of the Livingston County Planning Commission, and Jean Klum, Livingston County Planning Commissioner, offered their support and shared information about the LCPC, Brown Bag Lunches, Hybrid Meetings, Livingston County Park activities, Livingston County Trails Program and Hartland Township connections.

8. <u>Public Hearing:</u>

a. Site Plan /PD Application #20-012 Newberry Place Planned Development Preliminary Site Plan (Pattern Book submitted on April 15, 2021)

Chair Fox explained the Public Hearing process.

Chair Fox opened the Public Hearing at 7:09 p.m. stating all noticing requirements have been met.

Director Langer summarized the location and scope of the request stating the following:

- Located north and south of M-59 at Fenton Road/Pleasant Valley Road.
- Planned Development designated as Special Planning Area on the Future Land Use Map (FLUM) and have been so since the 1990s.
- Mixed Use PD was approved in 2007 but the project did not proceed to construction.
- Mayberry Homes acquired the project.
- Plan has changed several times which prompted the most recent Concept Review in March 2021, which did not include the 40 acres to the west.

- Currently seeking Preliminary Planned Development approval recommendation from the Planning Commission and ultimately a decision from the Township Board, step two of the three step process.
- Last phase is the Final Planned Development approval which looks mainly at the Planned Development Agreement documents. The Planning Commission would again make a recommendation and the Township Board the final approval of the PD.
- The Applicant would still need to come before the Planning Commission for Site Plan approval for any portion of the development they desire to construct, a more detail oriented approval process that examines landscaping, lighting, construction materials, etc.

Director Langer referred to the current request Regulating Plan noting the following:

Purple - Single Family Detached Only Residential District

This district consists of nineteen (19) lots along the northern boundary of the North Parcel, for the construction of detached, single family houses, only. The number of units is capped at nineteen (19) units. Only residential.

Blue - Single Family Residential District

This district allows for single family detached dwellings; attached style condominium up to five (5) units per building; duplex motor court condominiums; and 4 to 6-plex motor court condominiums. Consideration should be given to the possibility that this district could be comprised of a mix of the allowed residential uses or be entirely comprised of one (1) of the permitted residential uses. The regulating plan outlines that a maximum of 90 residential units would be permitted, within this district, on the north parcel; and 242 units would be permitted, within this district, on the north parcel. In total, 332 units would be permitted in the Single Family district on both the north and south parcel.

Light Green - Mixed Use District

As background information, the Mixed Use District allows for a diverse mix of housing options and uses as listed in the Pattern Book: commercial/office/retail uses; live-work units; single family detached dwellings; motor court condominiums (duplex; 4, or 6-plex condominiums); and multiple family (up to 14 units per building). Per the Regulating Plan, up to sixty-six (66) residential units could be built within the Mixed Use District. The Regulating Plan does not distinguish how many units on the north parcel and how many units on the south parcel. So, theoretically, all sixty-six (66) units could be developed on either the north or the south parcel. Some could include residential units above commercial businesses.

Dark Green - Commercial District

Specific Permitted Principal Uses are not listed for Commercial District. There is a statement that commercial use buildings shall conform to the uses permitted in the Township General Commercial (GC) Zoning District. It is unclear if that would permit any of the Special Land Uses listed in the GC Zoning District regulations. Consideration should be given to the possibility that this district could be comprised of a mix of the allowed uses or be entirely comprised of one (1) of the Permitted Uses.

Director Langer stated the Applicant has shown the maximum residential units and commercial space on the plan, there will never be more than the allowed units, but they are asking for some flexibility within the districts. The only district locked in would be the purple Single Family Detached Only units.

The Applicants, David Straub of Mayberry Homes, and Bob Schroeder, owner of Mayberry Homes introduced themselves and stated the following:

- Excited be back before the Planning Commission again.
- Project has proceeded in fits and starts over time and they are thrilled to hopefully be able to move forward.
- Staff has done an extensive review.
- Looking for feedback.
- Least intense proposal brought forward for this site.
- Tried to consider the existing single family homes on the north parcel and plan a good transition to the commercial portion rather than a wall of townhouse garages as in the 2007 proposal.
- This plan has the potential to utilize the REUs already present on the property; any less development, and they may choose to do less, would not use the REUs that have been applied to the property.
- Offering a mix of products, Middle Missing Housing, different products in a single neighborhood.

Call to Public

- Barbara Krueger, Hartland Township; expressed concerns about traffic, impact on school district and the post office.
- Ann Maguire, Hartland Township; commented on retaining the topography of rolling terrain on the northern portion, the setbacks for the single family only housing, ensuring some kind of landscape buffer or fence between the existing houses and the new development.
- Terry Gardner, Hartland Township; expressed concerns about this development negatively affecting his water supply.
- Richard Rowe, Hartland Township; expressed concern about the density, traffic, security, privacy, higher taxes to pay for more services like fire and police. Would like to see a brick wall on the north side. Would like to see more information showing elevations and topography, especially near Heritage Park. Commented on the old plan compared to the current plan in the purple area.
- Charles Johnson, Hartland Township; agrees with the other comments, has concerns about traffic, security, and trespass.
- Alex Yarber, Hartland Township; concerned about traffic on all of Fenton Road.
- Amanda Britton, Hartland Township; concerned about the potential noise from the commercial components, traffic, higher taxes, strain on other services, preserving rural character, and the location.
- Dick Krueger, Hartland Township; concerned about preserving the rural culture and character of the east side of Hartland, traffic and safety. Would like it moved back from M-59 100 feet.
- Dana Gardner, Hartland Township; concerned about traffic and would like to eliminate the commercial component.

Chair Fox closed the Public Hearing at 7:51 p.m.

Chair Fox referred to the staff memorandum dated June 3, 2021.

<u>Overview of the Planned Development - Proposed Development Districts and Uses</u> Blue - Single Family Residential District

Director Langer stated the following:

- 332 units, the majority, on both north and south parcels.
- Consisting of a variety of options:
 - Single family homes

- Attached style condominium up to five (5) units per building
- Duplex motor court condominiums
- 4 to 6-plex motor court condominiums

The Planning Commission discussed Single Family Residential District.

The Applicant stated the following:

- Motor court condominiums, 4 to 6-plex each a single family home.
- Site condominiums, each unit owns its own lot.
- Shared driveway as opposed to an alleyway in the rear.
- Additional density with a nice visual and not attached.
- Can be located anywhere in the Blue Single Family Residential District.
- Developers are asking for flexibility dependent upon the market and demand.
- May not build some of the products listed but the number of units will not ever be more than what has been approved.

Purple - Single Family Detached Only Residential District

Director Langer stated the following:

- Most locked in category.
- Nineteen (19) lots, single family detached.
- Higher density than some of the surrounding single family homes.
- Entire project is proposed with municipal water, originally proposed with a well.
- Originally the area was proposed for another type of housing, but residents requested the Applicant consider single family detached only abutting the existing houses to the north and the concept plan was modified.

Light Green - Mixed Use District

Director Langer stated the following:

- Caused the most concern with staff.
- Includes 85,000 square feet of commercial, 66 units of residential.
- Residential could be above the commercial or 14-unit multiple family buildings or any of the other housing styles.
- Preliminary Plan does not depict what the 66 residential units might be like if they are not above a commercial space. The Director is unclear of how it would look, work or fit.
- Requesting a revision of this portion of the plan for the Final PD approval that does show the 66 units if they are not above the commercial units.
- Recommends the developer go through the formality of plotting out 66 units that are not above the 85,000 square feet of commercial to determine if they would fit.

The Applicant stated the following:

- Dozens of combinations, difficult to plot.
- Balance of the various ingredients.
- Trying to remain flexible and let the market drive the direction for this District.
- They like residential over commercial, but many commercial users do not want that.
- Believes they would have a hard time finding buyers for the maximum commercial space, parking and stand-alone residential for 66 units.

The Planning Commission discussed the Mixed Use District.

• Applicant wants the flexibility to undo the commercial and make it residential if that is what the marketplace demands.

- Possibility there would be less than 85,000 square feet of commercial which sounds like a large amount, but it is roughly twice the size of the Kroger store.
- Stores will be neighborhood service convenience items for residents; hair salons, ice cream store, dry cleaner.

The Planning Commission would like to see a plan that shows a layout of the 66 units of residential not above the 85,000 square feet of commercial.

Dark Green - Commercial District

Director Langer stated the following:

- Regulating plan shows:
 - North side approximately 4800 square feet of commercial.
 - South side approximately 44,000 square feet of commercial.
 - Plan tentatively depicts automotive fueling stations and some unknown type of commercial.

Director Langer asked for the following items to be added or corrected in the Regulating Plan:

- Page 2, an 8-foot-wide bituminous Bike/Safety Path is shown on the north and south sides of Highland Road. Typically, the south side has a 5-foot-wide concrete sidewalk.
- Page 5, the plan should show the lot boundaries, building footprint, and setbacks similar to drawings in the Pattern Book for other types of residential buildings.
- Page 12, the following Street Type Guidelines revisions are required for the Legend and Map:
 - 66' Entrance Street ROW is listed in the Legend but is not shown on the plan (olive green color)
 - 110' Boulevard ROW should be added to the plan/legend with a specific color (located on south side of Highland Road)
 - 100' Boulevard ROW should be added to the plan/legend with a specific color (located on north side of Highland Road)
 - 5' Concrete Sidewalk should be shown on the south side of Highland Road, in place of the 8' Bituminous Bike/Safety Path, with a specific color on the plan/legend, to match that same color designation on Page 2 (Regulating Plan).

Chair Fox asked the Application if they could add this information. The Applicant agreed.

Eligibility Criteria (Section 3.1.18.B.)

Traffic Generation

Director Langer stated previously letters were submitted for the 2016 version of the development from Michigan Department of Transportation (MDOT), dated February 14, 2017, and from Livingston County Road Commission (LCRC), dated February 15, 2017. Updated review letters for the revised plan should be provided.

The Applicant stated there will be light at the intersection and a right turn only coming out of the project with a Michigan Left turning lane.

Director Langer stated the letter stated currently the intersection is failing, it is operating at an E or F Level of Service as some of the residents have pointed out. MDOT has improvements slated that include a signal at that intersection. He continued the Applicant is caught in the middle with MDOT directing them to first make the road improvements, add the signal etc., before they will approve the project, but the Applicants need MDOT approval in order to move forward. He is unsure if a 2017 letter is valid for this project as it is currently designed.

The Applicant stated they can provide documentation from their traffic engineer that will speak to that. Since 2016, When they added the 40 acres to the west and proposed an alternate entrance off of M-59, that threw a wrench in the works, but when they reverted back to the 108 acres originally proposed in 2016, the MDOT letter remained intact. They will revisit that with their traffic engineer and have them communicate with both MDOT and LCRC and provide a memorandum. Working with MDOT is not a fast process; they waited for a year and a half for an answer. The answer they ultimately received was MDOT would put in the first light at M-59 and Fenton Road at their expense, after that, there would be a threshold of trips generation for further improvements.

The Planning Commission briefly discussed MDOT's request for feedback on proposed changes to the intersection not related to the Newberry development.

Director Langer stated currently MDOT is asking the Township Board for feedback from the Township for a proposal to prohibit northbound traffic on Pleasant Valley Road from crossing M-59 directly to Fenton Road. Of course, the Township Board can recommend but MDOT has jurisdiction.

The Planning Commission briefly discussed the current signage and what is proposed.

Director Langer stated LCRC emailed information after the packet was sent indicating concern about the north commercial area connection to Fenton Road which has been a point of contention raised by residents in the past and here tonight. That connection requires a permit from LCRC. If it is permitted, he would like to know; if it is not permitted, there are a large number of commercial and residential units with a single access to M-59 which would require further discussion.

Commissioner Murphy asked about the intent of the design for the road. The Applicant stated it is intended as an alternate access to the commercial area. Residents could use it, but it would be an awkward access to the residential area. The M-59 access is the primary access. It is a means of ingress and egress for the commercial area and an alternate emergency access to the development if needed.

Director Langer added, the two connections on the south parcel to Pleasant Valley should also be approved by the LCRC.

Commissioner Mitchell stated he has concerns about the distance of the north connection to Fenton Road from M-59. Unsure if it meets the standard. He also would prefer access to the north commercial area be from M-59 only. Chair Fox stated from his experience, MDOT will not allow a driveway cut at that location. Commissioner Mitchell suggested the commercial portion be moved westward to avoid the conflict points on M-59. He feels, as many in the audience, it would be an injustice to allow a connection to Fenton Road at such a busy intersection. Even if MDOT added a light, it needs more. He feels that intersection should look more like Hickory Ridge Road and M-59.

The Applicant replied that the dark green portion is owned by sperate group, it would involve trading land in some way, but no matter what is in that location, it would be difficult to access without a connection to Fenton Road. He defers to the traffic engineers who specialize in this area.

Commissioner Mitchell stated he disagrees. It was stated the type of commercial uses would be in the service area such as hair salons, barber shop, real estate office; if so, he does not feel an access to Fenton Road is warranted. The Applicant stated that would require those patrons to drive through the gas station to get to those businesses; it still would be more difficult.

Commissioner Mitchell stated this issue may not be resolved at this meeting, but he is looking forward to getting an update from Livingston County Road Commission and MDOT to see what their thoughts and opinions are four years later.

Commission Grissim stated she feels they need two access points due to the number of uses on that site and is sad to hear that MDOT will not allow it. She does not like it off of Fenton Road either, but she cannot fathom that property with this development and only one entrance. It is not good planning, is what they have heard in the past. She would like to see two off of M-59.

The Applicant stated they want two access points for safety. They are willing to work and do some thinking about it but working with MDOT is difficult; dealing with LCRC is easier but still requires dealing with all of their engineering standards. They are open to whatever the best solution may be.

Commissioner Murphy stated he agrees with Commissioner Mitchell but also sees value in having two access points. It is in a difficult location. His suggestion is to consider moving the boulevard to the east, but he too would like to see two entrances on M-59.

The Applicant stated according to MDOT the two entrances would be too close together. He could look at moving the boulevard unless MDOT is locked into that location. Director Langer stated it is typically the distance from the intersection that determines minimum distance for an access which is often predicated on site distance and other access points. He cannot speak for MDOT but moving it closer to the intersection may not be possible.

Commissioner Murphy stated the access on the south side is closer to the intersection but there may be a difference in direction traffic is moving at that location. It is a shame it takes so long to get answers.

Commissioner McMullen stated the other Commissioners have brought forward good points; being a traveler on Fenton Road, she too can see that drive would hinder more than benefit.

Public Safety

Director Langer indicated the designated area for a fire station on the South Parcel, adjacent to Pleasant Valley Road. He stated this goes back to the 2007 plan. The fire department commented this part of the Township needs another fire station to serve the residents. One of the benefits of the project is the developer is allocating the land for a fire station.

Stormwater and Drainage

The Applicant was advised to speak to The Department of Environment, Great Lakes and Energy (EGLE) regarding any wetlands on the property.

Water/Sewer

Director Langer stated the sewer is already available. Director Langer explained this property already has a significant investment in sewer which is why suggestions for a lesser density are not feasible. Currently there are plans for the extension of municipal water east along M-59 which would serve this development and several others along Highland Road.

Compatibility with Comprehensive Plan

Director Langer referred to the Comprehensive Plan and the staff memorandum.

Planned Development Design Standards (Section 3.1.18.C.)

Permitted Uses

Director Langer generally explained a Planned Development:

- Unique zoning tool.
- Some regulations can be waived as a trade off if applicants provide a development with worthwhile amenities for the community.
- Listing the uses allowed the Applicant made reference to the uses allowed in the GC zoning district.
- The Zoning Ordinance GC General Commercial category lists Uses by Right and Uses by Special Use Permit.
- Special Use Permits require a Public Hearing and noticing.
- The question is, does the Planning Commission want to allow all of the uses as Permitted Uses, acknowledging there has already been a Public Hearing process, or does the Planning Commission want to limit some of those uses.

The Applicant stated the fueling stating and car wash are part of the plan. They would like those to be approved with this plan.

Commissioner Mitchell asked if the Applicant could look at the list of Permitted Uses by Right and by Special Use Permit in the GC zoning district and present them to the Planning Commission for their consideration and approval, either in the Pattern Book, or with a reference in the Pattern Book to the PD Agreement, at a future meeting. The Planning Director, Planning Commission and Applicant agreed.

Residential Density

Director Langer stated the following:

- FLUM and Comprehensive Plan Standards for density.
- 3 to 4 du per acre.
- Density is 3.84 units.
- Density Bonus is allowed but not being requested as they comply.

Chair Fox asked the Planning Commission if this was a good place to pause the discussion and come back next week, June 17, 2021, for a Special Planning Commission Meeting at 7:00 p.m. The Planning Commission and Applicant agreed.

9. <u>Call to Public:</u>

Dick Krueger, Hartland Township; asked the developer to consider adding a world class electric charging station in conjunction is General Motors. Also, would like to see provisions for electric car charging units in every residence in this development and every new development in Hartland.

10. Planner's Report:

None

11. Committee Reports:

Chair Fox reminded the Planning Commission of the Special Planning Commission Meeting scheduled for June 17, 2021, at 7:00 p.m.

12. Adjournment:

A Motion to adjourn was made by Commissioner Mitchell and seconded by Commissioner Murphy. Motion carried unanimously. The meeting was adjourned at approximately 8:56 p.m.

Hartland Township Planning Commission Meeting Agenda Memorandum

Submitted By:	Troy Langer, Planning Director
Subject:	Site Plan/PD Application #21-005 Redwood Living Planned Development (PD) – Preliminary Site Plan
Date:	July 15, 2021

Recommended Action

Move to recommend approval of Site Plan Application #21-005, the Preliminary Planned Development Site Plan for the Redwood Living Planned Development, subject to the following conditions:

- 1. The Preliminary Planned Development Site Plan for Redwood Living, SP PD #21-005, is subject to the approval of the Township Board.
- 2. The applicant shall adequately address the outstanding items noted in the Planning Department's memorandums, dated June 17, 2021, and July 15, 2021, on the Construction Plan set, subject to an administrative review by Planning staff prior to the issuance of a land use permit.
- 3. As part of the Final Plan Review, the applicant, and/or any future owners shall agree to not interfere or object to any future roadway and/or pedestrian connections to the east. Any future ingress-egress easement agreement shall comply with the requirements of the Township Attorney.
- 4. As part of the Final Plan Review, the applicant shall provide a Planned Development (PD) Agreement that includes any easements and access agreements. A landscape easement and maintenance agreement are required for properties to the north, and an access and maintenance agreement will be required for the use of the Hartland Glen Lane.
- 5. The applicant shall obtain any permits from the Livingston County Road Commission for any and all improvements to Hartland Glen Lane within the road right-of-way of Cundy Road.
- 6. Municipal water shall be available for this development. In the event that municipal water is not available for this project, the developer shall re-submit plans to be approved by the Planning Commission and Township Board that provide an acceptable water source.
- 7. Applicant complies with any requirements of the Township Engineering Consultant, Department of Public Works Director, Hartland Deerfield Fire Authority, and all other governmental agencies, as applicable.
- 8. (Any other conditions the Planning Commission deems necessary).

Discussion

Applicant: Redwood Living

Site Description

The proposed Redwood Living Planned Development (PD) is shown in the northeast portion of Hartland Glen Golf Course. Hartland Glen Golf Course has been in operation on the property for over 30 years. The golf course property, addressed as 12400 Highland Road, is approximately 383.15 acres in size, and is west of Pleasant Valley Road, south of Cundy Road, and west of Hartland Glen Lane (Parcel ID #4708-26-100-019). The golf course property is zoned CA (Conservation Agricultural). The proposed project area currently functions as a golf course. Existing wetland areas/ponds are shown on the submitted plans.

The proposed PD project occupies approximately 27.13 acres of the golf course property, in the northeast part of the golf course. The plan shows proposed parcel lines that delineate the project area. A land division request and application will be reviewed separately. To be noted, is that the proposed boundary lines for the PD will essentially create two (2) new parcels with frontage along Cundy Road. The applicant has not provided information on this subject. One area (west of 12396 Cundy Road, currently has two (2) accessory buildings that presumably are associated with the golf course. It appears that this land area could comply with the CA zoning standards for lot width and lot area. The other area of land, east of 12398 Cundy Road, at the corner of Cundy Road and Hartland Glen Lane, may not comply with the CA zoning standards. Additional details will be required during the review of a land division request and application.

The property east of the proposed PD project area (Tax ID #4708-26-200-002) is vacant and zoned CA (Conservation Agricultural). Two (2) single-family residential properties, north of the project area, are zoned CA. Those properties are addressed as 12396 Cundy Road (Tax ID #4708-26-100-001) and 12398 Cundy Road (Tax ID #4708-26-100-012). The PD project area is surrounded by Hartland Glen Golf Course on the south and partially on the west. A single-family residence occupies the parcel addressed as 12250 Cundy Road (Tax ID #4708-26-100-002), zoned CA, and shares a portion of the west property line of the planned development.

Hartland Glen Golf Course was previously designated as Medium Suburban Density Residential on the 2015 Future Land Use Map (FLUM); however, in 2020-2021, several amendments were made to the FLUM and Comprehensive Development Plan. The amendments were approved by the Township Board on May 18, 2021. One of the areas that was amended is the Hartland Glen Golf Course property, which is now designated as a Special Planning Area (SPA), thus the proposed Redwood Living PD project area is designated as SPA.

The 2015 FLUM designates the parcel east of Hartland Glen Lane as a Special Planning Area. The 2020-2021 Amendment to the FLUM now designates the two (2) properties north of the project area as a Special Planning Area (12396 and 12398 Cundy Road). The parcel west of the project area, addressed as 12250 Cundy Road, is designated as Medium Suburban Density Residential on the 2015 FLUM.

Public access to the planned development is via two (2) access points onto Hartland Glen Lane from internal roads in the PD. Staff is unsure if Hartland Glen Lane is considered a private road or an internal access drive. Historically this road has been the only access route to the golf club and parking associated with Hartland Glen Golf Course. Based on the submitted plans Hartland Glen Lane is twenty (20) feet wide and is without curb and gutter.

The applicant has been involved in discussions with the Township about the extension of a water main down M-59 that could serve this site. The Public Works Director has indicated that municipal sanitary sewer currently is located near this subject property and the development would be required to connect. Those details will be worked out later.

Site History

REZ #361 (2017)

In 2017, approximately 71 acres of Hartland Glen Golf Club property was rezoned from CA to HDR in 2017 under REZ #361. In 2017, approximately 73 acres were rezoned from CA-Conservation Agricultural to HDR-High Density Residential, under RZ #361. The property associated with the rezoning request included approximately 71 acres of the golf course property (the northern nine (9) holes of the golf course) and two (2) single-family residences on Cundy Road, equating to an additional two (2) acres of land, or 73 acres. The properties on Cundy Road are addressed as 12396 and 12398 Cundy Road. The remaining portion of Hartland Golf Club property is zoned CA. The current (2012) Township Zoning Map does not reflect the zoning changes that were approved under RZ #361.

During the rezoning request, the applicant had also submitted a concept plan. This plan was never formally reviewed during the rezoning, as it was not part of the rezoning request. However, at that time, the property owner indicated that the entire property, which consists of 386 acres, has been allocated 602 Residential Equivalent Units (REU) sanitary sewer taps. The Planning Department has not been able to verify that number of REU's with the Public Works Department; however, it is believed the number would at a minimum be fairly close, since there has been litigation on this topic and this property.

Site Plan Application #20-008 (Redwood Living Planned Development) - Concept Plan

The Concept Plan was discussed under Site Plan Application #20-008. The Planning Commission reviewed the project on August 20, 2020, followed up by the Township Board's review at their September 15, 2020 meeting.

<u>Site Plan Application #21-005 (Redwood Living Planned Development) – Preliminary Planned</u> Development Site Plan

The Preliminary Planned Development Site Plan for Redwood Living PD was reviewed by the Planning Commission under Site Plan Application #21-005. On June 24, 2021, the Planning Commission held a public hearing for the project. Upon review of the project, the Planning Commission requested the applicant revise the plans to address several items that were discussed at the public hearing, prior to the Planning Commission making a recommendation on the project. One of the topics was related to residential density and the need for a density bonus for this project. The purpose of the memorandum is to discuss the issues raised at the June 24, 2021 meeting. The full analysis of the project is provided in the staff memorandum dated June 17, 2021, which is provided as an attachment.

Planned Development Procedure

Section 3.1.18 of the Township's Zoning Ordinance provides standards and approval procedures for a PD Planned Development. Approval of a Planned Development is a three-step process. A Concept Plan, Preliminary Plan, and Final Plan are all reviewed by the Planning Commission and the Township Board, with the Planning Commission making a recommendation and the Board having final approval at each step. The process usually requires a rezoning from the existing zoning district to the Planned Development (PD) zoning district. As part of the rezoning, a public hearing is held before the Planning Commission consistent with the Michigan Zoning Enabling Act; this public hearing is held at the same meeting during which the Planning Commission reviews and makes a recommendation on the Preliminary Plan. Approval of the Final Plan by the Township Board usually constitutes a rezoning of the subject property to PD. Given the requirements for publishing a notice for the planned development, the public hearing was held at the June 24, 2021 Planning Commission meeting. Approval of the Final Plan by the Township Board usually constitutes a rezoning of the subject property to PD.

For all intents and purposes, the Preliminary Plan step is essentially the same as a preliminary site plan review for a conventional project in the Township. All the information and details required for a preliminary site plan approval must be provided for the Preliminary PD review and approval. Final PD review will involve detailed plans for those phases for which construction is intended to begin immediately, review of the Planned Development Agreement, and other written documents as applicable.

Overview of the Preliminary Plan and Proposed Use

The proposed residential planned development consists of thirty (30) single-story, multi-unit apartment buildings. The target market for this development includes empty nesters, seniors, and young professionals; however, the development is not age restricted. Per the applicant the projected rent rate for the Hartland project is anticipated to be between \$1,650 and \$2,050 per month.

There are four (4) types of apartment buildings: 3-unit, 4-unit, 5-unit, and 6-unit. In total there are 30 apartment buildings and 148 units. Six (6) different building models are offered, with varying architectural designs and interior layout options. Architectural plans and floor plans have been submitted by the applicant. Each apartment unit has 2 bedrooms, 2 bathrooms, and an attached 2-stall garage. The unit size ranges from 1,300 to 1,600 square feet. The driveway for each unit is a minimum 25 feet long, as measured from the leading edge of the unit to the back of the street or to the leading edge of the sidewalk pavement, to accommodate residents parking two (2) vehicles and not impede with the accessible sidewalk along the road.

A leasing office/maintenance building is shown in the northeast portion of the site, at the eastern end of Building A, which is shown as a 4 -unit apartment building.

Public access to the development is via two (2) access points from Hartland Glen Lane on the east. Hartland Glen Lane intersects with Cundy Road. Cundy Road generally runs west to east in this area, and then travels north to intersect Highland Road. Internally the residential units are served by several private roadways.

Additional details on the project are summarized in the staff memorandum dated June 17, 2021.

Review of Discussion Items and Revised Site Plans Stamped Received July 14, 2021

Following is a discussion of the topics discussed at the public hearing held on June 24, 2021.

Residential Density

At the public hearing, the Planning Commission discussed residential density and applicable standards outlined in Section 3.1.18.C. (Planned Development Design Standards). Per the ordinance, residential density in a planned development is to be consistent with the density designation within the Township's Comprehensive Plan. The PD project is situated within the Hartland Glen Golf Club property, and the golf course property is designated as Special Planning Area (SPA) in the recently adopted 2020-2021 Comprehensive Plan Amendment and Amended FLUM (Future Land Use Map). The SPA is to have a base density of four (4) dwelling units per acre but allows for a higher density in the northern portion of the site, up to five (5) dwelling units per acre, and the southern portion of the site to have up to three (3) dwelling units per acre.

The Preliminary Plan proposes 148 dwelling units with a density of 5.45 dwelling units per acre. The proposed density exceeds the maximum allowed density of up to five (5) units per acre in the northern portion of the SPA. Per Section 3.1.18.C.iv., the Planning Commission may agree to recommend up to a forty (40%) percent increase in dwellings on a site in recognition of outstanding attributes as listed in this

section. The Township Board in it is sole discretion shall have the ability to approve such density increase up to forty (40%) percent subsequent to an affirmative recommendation from the Planning Commission. In this case the planned development land area could accommodate 136 dwelling units (27.13 acres x 5 dwelling units per acre), in accordance with the Comprehensive Plan. The planned development plan could include up to 190 dwelling units (136 + 54 additional dwellings) if a maximum bonus (40% increase) were awarded by the Planning Commission and Township Board. The proposed development has 148 dwelling units, which exceeds the maximum number of units by 12 units. This equates to an approximate 8.8% increase in dwellings on the subject site and consideration of a density bonus is applicable.

The Preliminary Plan appeared to be deficient in meeting the minimum PD design standards in several categories. The Planning Commission expressed concerns that the plan was deficient and thus the Commission was hesitant to consider awarding a density bonus. The applicant was directed by the Planning Commission to address those concerns and provide revised plans and/or further details on specific topics. The applicant has provided revised plans and photographs of residential buildings in other Redwood Living developments for the Planning Commission's review. Following is a summary of the revised plans.

Residential Density and meeting minimum PD design standards:

- Deciduous/canopy tree diameter was upgraded from 2.5 inches to 3 inches (tree size at the time of planting.
- Meeting minimum yard requirements for building setbacks (Section 3.1.18.C.vi.a.):
 - West: Added landscape screening by buildings near the northwest portion of the site (Buildings labeled as Building F and G).
 - North: Added a 15-foot wide landscape easement on the adjacent residential properties north of the PD property. Provided a landscape buffer within the landscape easement with an increase in the overall number of trees and shrubs from the previous PD landscape plan. The intent is to provide sufficient screening and buffering, where abutting single-family zoned properties (Screening Between Land Uses, Section 5.11.2.G.i.).
 - South: This area shows the same landscape buffer at the south property line as was previously depicted; however, the adjacent property to the south will most likely be developed as a PD for the same project and thus a buffer will not be necessary at this location.
- Street trees Additional street trees are provided and tree spacing modified to place the trees closer together than shown on the previous landscape plan.

Building materials and long-term maintenance of residential buildings

- Applicant is exploring alternate siding materials to see if it offers the same color options as are currently proposed for the vinyl siding.
- Applicant provided photographs of residential buildings from older Redwood developments, dating from approximately 2013, to illustrate that the buildings are maintained, and the façade materials endure over time.

Driveway width

• Increased driveway width (concrete area) from 16 feet wide to 18 feet wide (single driveway) or 38'-8" feet wide (double driveway) in order to accommodate wo (2) vehicles parked side by side in the driveway and allow for access in and out of each vehicle. The double driveway occurs on the Forestwood and Willowood building models, where the garages of two (2) abutting apartment units share a common wall.

The site plans reviewed on June 24, 2021, showed a 16-foot wide driveway for each unit, separated with an approximate 4'-8" foot wide median strip between the two (2) driveways. The median strip had lawn or gravel, The revised detail plan for the double driveway (Sheet SK 01) has eliminated the median strip and added 1-foot of concrete onto the outer edge of each driveway, thus the total driveway width is shown as 38'-8". It should be noted that the current set of revised plans stamped received July 14, 2021, still show the median strip for the double driveway design. The Construction Plan set shall accurately depict the correct driveway width and design for all units/building models, and the median strip should be removed.

Other Requirements-Zoning Ordinance Standards

Nothing additional at this time.

Attachments:

- 1. Staff memorandum SP PD #21-005 dated 06.17.2021 PDF version
- 2. Photographs of apartment buildings Redwood developments PDF version
- 3. Revised Garage Driveway for Haydenwood & Forestwood PDF version
- 4. Revised plans for Redwood Living Preliminary PD stamped received 07.14.2021

CC:

HRC, Twp Engineer (via email)M. Luce, Twp DPW Director (via email)A. Carroll, Hartland FD Fire Chief (via email)

T:\PLANNING DEPARTMENT\PLANNING COMMISSION\2021 Planning Commission Activity\Site Plan Applications\SP PD #21-005 Redwood Prelim Plan\Staff Reports\SP #21-005 Redwood PD Prelim PC Staff report 2 dated 07.15.2021.docx

Hartland Township Planning Commission Meeting Agenda Memorandum

Submitted By:	Troy Langer, Planning Director
Subject:	Site Plan/PD Application #21-005 Redwood Living Planned Development (PD) – Preliminary Site Plan
Date:	June 17, 2021

Recommended Action

Move to recommend approval of Site Plan Application #21-005, the Preliminary Planned Development Site Plan for the Redwood Living Planned Development, subject to the following:

- 1. The Preliminary Planned Development Site Plan for Redwood Living, SP PD #21-005, is subject to the approval of the Township Board.
- 2. The applicant shall adequately address the outstanding items noted in the Planning Department's memorandum, dated June 17, 2021, on the Construction Plan set, subject to an administrative review by Planning staff prior to the issuance of a land use permit.
- 3. As part of the Final Plan Review, the applicant, and/or any future owners shall agree to not interfere or object to any future roadway and/or pedestrian connections to the east. Any future ingress-egress easement agreement shall comply with the requirements of the Township Attorney.
- 4. As part of the Final Plan Review, the applicant shall provide a Planned Development (PD) Agreement that includes any easements and access agreements. A landscape easement and maintenance agreement are required for properties to the north, and an access and maintenance agreement will be required for the use of the Hartland Glen Lane.
- 5. The applicant shall obtain any permits from the Livingston County Road Commission for any and all improvements to Hartland Glen Lane within the road right-of-way of Cundy Road.
- 6. Applicant complies with any requirements of the Township Engineering Consultant, Department of Public Works Director, Hartland Deerfield Fire Authority, and all other governmental agencies, as applicable.

Discussion

Applicant: Redwood Living

Site Description

The proposed Redwood Living Planned Development (PD) is shown in the northeast portion of Hartland Glen Golf Course. Hartland Glen Golf Course has been in operation on the property for over 30 years. The golf course property, addressed as 12400 Highland Road, is approximately 383.15 acres in size, and is west of Pleasant Valley Road, south of Cundy Road, and west of Hartland Glen Lane (Parcel ID #4708-26-100-019). The golf course property is zoned CA (Conservation Agricultural). The proposed project area currently functions as a golf course. Existing wetland areas/ponds are shown on the submitted plans.

The proposed PD project occupies approximately 27.13 acres of the golf course property, in the northeast part of the golf course. The plan shows proposed parcel lines that delineate the project area. A land division request and application will be reviewed separately. To be noted, is that the proposed boundary lines for the PD will essentially create two (2) new parcels with frontage along Cundy Road. The applicant has not provided information on this subject. One area (west of 12396 Cundy Road, currently has two (2) accessory buildings that presumably are associated with the golf course. It appears that this land area could comply with the CA zoning standards for lot width and lot area. The other area of land, east of 12398 Cundy Road, at the corner of Cundy Road and Hartland Glen Lane, may not comply with the CA zoning standards. Additional details will be required during the review of a land division request and application.

The property east of the proposed PD project area (Tax ID #4708-26-200-002) is vacant and zoned CA (Conservation Agricultural). Two (2) single-family residential properties, north of the project area, are zoned CA. Those properties are addressed as 12396 Cundy Road (Tax ID #4708-26-100-001) and 12398 Cundy Road (Tax ID #4708-26-100-012). The PD project area is surrounded by Hartland Glen Golf Course on the south and partially on the west. A single-family residence occupies the parcel addressed as 12250 Cundy Road (Tax ID #4708-26-100-002), zoned CA, and shares a portion of the west property line of the planned development.

Hartland Glen Golf Course was previously designated as Medium Suburban Density Residential on the 2015 Future Land Use Map (FLUM), however in 2020-2021 several amendments were made to the FLUM and Comprehensive Development Plan. The amendments were approved by the Township Board on May 18, 2021. One of the areas that was amended is the Hartland Glen Golf Course property, which is now designated as a Special Planning Area (SPA), thus the proposed Redwood Living PD project area is designated as SPA.

The 2015 FLUM designates the parcel east of Hartland Glen Lane as a Special Planning Area. The 2020-2021 Amendment to the FLUM now designates the two (2) properties north of the project area as a Special Planning Area (12396 and 12398 Cundy Road). The parcel west of the project area, addressed as 12250 Cundy Road, is designated as Medium Suburban Density Residential on the 2015 FLUM.

Public access to the planned development is via two (2) access points onto Hartland Glen Lane from internal roads in the PD. Staff is unsure if Hartland Glen Lane is considered a private road or an internal access drive. Historically this road has been the only access route to the golf club and parking associated with Hartland Glen Golf Course. Based on the submitted plans Hartland Glen Lane is twenty (20) feet wide and is without curb and gutter.

The applicant has been involved in discussions with the Township about the extension of a water main down M-59 that could serve this site. The Public Works Director has indicated that municipal sanitary sewer currently is located near this subject property and the development would be required to connect. Those details will be worked out later.

Site History

REZ #361 (2017)

In 2017, approximately 71 acres of Hartland Glen Golf Club property was rezoned from CA to HDR in 2017 under REZ #361. In 2017, approximately 73 acres were rezoned from CA-Conservation Agricultural to HDR-High Density Residential, under RZ #361. The property associated with the rezoning request included approximately 71 acres of the golf course property (the northern nine (9) holes of the golf course) and two (2) single-family residences on Cundy Road, equating to an additional two (2)

acres of land, or 73 acres. The properties on Cundy Road are addressed as 12396 and 12398 Cundy Road. The remaining portion of Hartland Golf Club property is zoned CA. The current (2012) Township Zoning Map does not reflect the zoning changes that were approved under RZ #361.

During the rezoning request, the applicant had also submitted a concept plan. This plan was never formally reviewed during the rezoning, as it was not part of the rezoning request. However, at that time, the property owner indicated that the entire property, which consists of 386 acres, has been allocated 602 Residential Equivalent Units (REU) sanitary sewer taps. The Planning Department has not been able to verify that number of REU's with the Public Works Department; however, it is believed the number would at a minimum be fairly close, since there has been litigation on this topic and this property.

Site Plan Application #20-008 (Redwood Living Planned Development) - Concept Plan

The Concept Plan was discussed under Site Plan Application #20-008. The Planning Commission reviewed the project on August 20, 2020, followed up by the Township Board's review at their September 15, 2020 meeting.

Planned Development Procedure

Section 3.1.18 of the Township's Zoning Ordinance provides standards and approval procedures for a PD Planned Development. Approval of a Planned Development is a three-step process. A Concept Plan, Preliminary Plan, and Final Plan are all reviewed by the Planning Commission and the Township Board, with the Planning Commission making a recommendation and the Board having final approval at each step. The process usually requires a rezoning from the existing zoning district to the Planned Development (PD) zoning district. As part of the rezoning, a public hearing is held before the Planning Commission consistent with the Michigan Zoning Enabling Act; this public hearing is held at the same meeting during which the Planning Commission reviews and makes a recommendation on the Preliminary Plan. Approval of the Final Plan by the Township Board usually constitutes a rezoning of the subject property to PD. Given the requirements for publishing a notice for the planned development, the public hearing has been scheduled for the June 24, 2021 Planning Commission meeting. Approval of the Final Plan by the Township Board usually constitutes a rezoning of the Final Plan by the Township Board usually constitutes a Planned development.

For all intents and purposes, the Preliminary Plan step is essentially the same as a preliminary site plan review for a conventional project in the Township. All the information and details required for a preliminary site plan approval must be provided for the Preliminary PD review and approval. Final PD review will involve detailed plans for those phases for which construction is intended to begin immediately, review of the Planned Development Agreement, and other written documents as applicable.

Overview of the Preliminary Plan and Proposed Use

The proposed residential planned development consists of thirty (30) single-story, multi-unit apartment buildings. The target market for this development includes empty nesters, seniors, and young professionals; however, the development is not age restricted. Per the applicant the projected rent rate for the Hartland project is anticipated to be between \$1,650 and \$2,050 per month.

There are four (4) types of apartment buildings: 3-unit, 4-unit, 5-unit, and 6-unit. In total there are 30 apartment buildings and 148 units. Six (6) different building models are offered, with varying architectural designs and interior layout options. Architectural plans and floor plans have been submitted by the applicant. Each apartment unit has 2 bedrooms, 2 bathrooms, and an attached 2-stall garage. The unit size ranges from 1,300 to 1,600 square feet. The driveway for each unit is 25 feet long, as measured from the leading edge of the unit to the back of the street or sidewalk pavement, to accommodate residents parking two (2) vehicles in the driveway and not impeded with the accessible sidewalk along the road.

A leasing office/maintenance building is shown in the northeast portion of the site, at the eastern end of Building A, which is shown as a 4 -unit apartment building. A floor plan of the leasing office is provided as an attachment.

Public access to the development is via two (2) access points from Hartland Glen Lane on the east. Hartland Glen Lane intersects with Cundy Road. Cundy Road generally runs west to east in this area, and then travels north to intersect Highland Road. Internally the residential units are served by several private roadways. It appears the roadways will not meet the design standards for a private road as outlined in Section 5.23 of the Zoning Ordinance, thus staff is using the term roadway in this memorandum.

The Preliminary Plan shows the footprint of each of the 30 apartment buildings. The plan states the proposed building setbacks. Guest parking spaces are scattered throughout the development. A 4-post pavilion is located in the center of the site, with benches. A mail kiosk is shown east of the leasing/maintenance building.

Five (5) foot wide sidewalks (walking paths) are provided within the development, along Hartland Glen Lane, and as an integral sidewalk along one side of each private (internal) roadway. The total width of the concrete roadway is twenty-seven (27) feet, with 22 feet dedicated as the driving lane/roadway and the outer five (5) feet (on one side of the roadway) dedicated as the sidewalk, which is scored and stained a different color than the roadway so as to distinguish it as a pedestrian walkway. Curb and gutter are not part of the roadway design in order to provide an ADA-compliant accessible route and avoid ramps, per the applicant.

Three (3) existing ponds with wetland areas are found within or adjacent to the proposed development. The applicant has noted these will be not be disturbed or impacted. A proposed stormwater detention basin is located in the southwest corner of the development. Two (2) fountains are to be placed in the bottom of the detention pond per the applicant however the fountains are shown on Sheet C200.

The Concept Plan, dated July 16, 2020, was reviewed under SP #20-008. On that plan, a 15-foot-wide off-site landscape easement was shown on two (2) adjacent properties north of the PD, addressed as 12396 and 12398 Cundy Road, which are under the same ownership as Hartland Glen Golf Course. The property owner had indicated to staff he would provide the 15-foot-wide landscape easement within those two (2) properties, in order to provide screening of the apartment buildings along the north property line of the Redwood Living PD.

The current set of plans does not show a 15-foot-wide off-site landscape easement on the 12396 or 12398 Cundy Road properties. It appears that the Preliminary Plan instead shows a 15-foot-wide landscape area within the PD site, along the north property line of the PD, and it is not labeled as an easement. A copy of the Landscaping Easement Agreement is provided however staff is requesting clarification on the document regarding the actual location of the proposed Landscaping Easement. A maintenance agreement should be considered as well.

The Open Space Plan states approximately 16.02 acres of the site is open space (59.1% of the PD area), with approximately 12.15 acres designated as usable open space (44.8%).

Municipal sewer access is available and an adequate number of REU's (Residential Equivalency Units) are attached to the planned development property. A proposed off-site lift station is shown south of the PD property. Additional details were not provided by the applicant. The applicant will work with the Township and the Livingston County Drain Commission regarding the design details. The Township is currently exploring extension of municipal water lines down M-59 that could provide water service to this

property, on both sides of Highland Road. The Public Works Director has provided a review letter dated June 15, 2021.

As noted, the project area is approximately 27.13 acres in area, in the northeast portion of the Hartland Glen Golf Club property. The estimated proposed density is 5.45 dwelling units per acre, using 148 dwelling units. More discussion on density is provided in the next section of this report.

Eligibility Criteria (Section 3.1.18.B.)

To be eligible for PD approval, the applicant must demonstrate that the criteria in Section 3.1.18.B. will be met.

1. Recognizable Benefits. *The planned development shall result in a recognizable and substantial benefit to the ultimate uses of the project and to the community and shall result in a higher quality of development than could be achieved under conventional zoning.*

The applicant has provided a letter, dated May 13, 2021, that addresses this topic.

2. Minimum Size. Planned Developments must be a minimum of 20 acres of contiguous land.

The proposed project is approximately 27.13 acres in size, of contiguous land, and meets the criteria.

3. Use of Public Services. The proposed type and density of use shall not result in an unreasonable increase in the use of public services, facilities and utilities, and shall not place an unreasonable burden upon the subject site, surrounding land, property owners and occupants, or the natural environment.

The development is serviced via existing and proposed private roadways. The north end of Hartland Glen Lane intersects Cundy Road, which is under the jurisdiction of the Livingston County Road Commission (LCRC). The applicant states this development will generate a low trip generation as opposed to a higher density use. Public water and sanitary sewer services are proposed via the proposed extension of these services, which could potentially benefit adjacent lands with future connections.

4. Compatibility with Comprehensive Plan. The proposed development shall not have an adverse impact upon the Comprehensive Plan for the Township. Notwithstanding this requirement, the Township may approve a Planned Development proposal that includes uses which are not called for on the Future Land Use Map, provided that the Planning Commission and Township Board determine that such a deviation from the Future Land Use Map is justified in light of the current planning and development objectives of the Township.

The 2020-2021 Comprehensive Plan Amendment and Amendment to the Future Land Use Map, were approved by the Township Board on May 18, 2021. As part of those Amendments, the M-59/Cundy Road/Hartland Glen Golf Course was designated as a Special Planning Area (SPA), which is approximately 385.9 acres in size (Hartland Glen Golf Courses property). The intention of the Planning Commission is to work closely with the landowners in this area to establish the terms of an agreement for a mixed-use Planned Development. The Commission has agreed that the SPA should have a density that is flexible. Overall, the SPA shall have a base density of four (4) dwelling units per acre. However, the Commission agrees that a high density is more desirable in the northern portion of the site while a lower density is more desirable in the lower portion of the site. The surrounding properties in the northern portion of the site are at a much higher density than the surrounding properties along the southern portion of the site. As a result, up to 25% of the density may be increased in the northern portion of the site (up to

five (5) dwelling units per acre) if the southern portion of the site is decreased by 25% (up to three (3) units per acre). Overall, the entire site shall remain at four (4) units per acre.

The Commission has agreed that if the developers of the SPA are able to include certain desirable design features that significantly enhance the appearance and function of the site, additional "bonus' density dwelling units can be awarded to the development as an incentive to promote a high-quality development. However, such a density "bonus" will only be awarded at the discretion of the Township in accordance with established development regulations of the Township and State of Michigan.

Further, the Planning Commission has determined the PD can be created with an environment that encourages pedestrian linkage between activity nodes and resource features. Specific principles were agreed upon for the Special Planning Area in the 2020-2021 Comprehensive Plan Amendment, as listed below.

- 1. Development within the Special Planning Area shall provide for a variety of housing forms (for example, single family, townhouses, condominium, apartments, and senior housing), along with retail, office, recreation, and entertainment space. *The applicant proposes a residential development comprised of single-story apartment buildings, with a variety of building styles and interior layout options. The Redwood Living PD is intended to provide a housing style that is currently under-represented in the Township, that is designed as a residential community.*
- 2. Development within the Special Planning Area shall provide for public facilities and other neighborhood amenities. *The proposed extension of the public watermain and sewer to serve this site could potentially serve adjacent sites in the future. This could be considered an asset to the Township. The design of the PD provides open space areas that can be enjoyed by the Redwood Living community, that include a covered pavilion and internal walking paths.*
- 3. Special Planning Area shall provide pedestrian and vehicular links between land uses and adjacent property (that may not be directly included within this Special Planning Area development). The proposed plan shows a 5-foot-wide concrete sidewalk along the west side of Hartland Glen Lane, which extends to Cundy Road at the north terminus. Two vehicular access points are provided from the PD to Hartland Glen Lane, which allows for a connection to the Hartland Glen Golf Course facility (clubhouse and parking to the south).
- 4. Special Planning Area shall also coordinate with the Township's goal of creating walkable pathways to the Township settlements and other public and private facilities. *The PD provides an internal system of sidewalks. Additionally, a 5-foot-wide concrete sidewalk along Hartland Glen Lane provides pedestrian access from the development to Cundy Road and to Hartland Glen Golf Course facilities. Currently sidewalks are not present on Cundy Road or Highland Road in this area.*
- 5. Developments shall be developed in harmonious coexistence with pre-existing historical and natural features within the Township. *The intent of the PD is to retain the existing natural features such as the wetland and pond areas. The site will follow the existing topography and thus limit the need for major earthwork changes. The existing drainage patterns will be maintained.*
- 6. Special Planning Area shall include landscape, streetscape, traffic and architectural solutions that are superior in design and visually enhancing the local community with sensitivity to the existing

historic features in the Township. The apartment buildings are single-story which are in keeping with the surrounding neighborhoods and less impactful than the allowed 35-foot building height in other residential zoning categories. The proposed landscape plan provides buffering of the buildings on the north, with additional plantings shown on the borders of the PD and internal to the site. Street trees and planting areas around each apartment unit are also provided.

5. Unified Control. The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project, or assuring completion of the project, in conformity with the Ordinance.

Redwood would be the only owner of the 27.13-acre PD parcel, and Redwood will construct the entire development, maintain the development, and manage the development after it is completed and filled with occupants.

Planned Development Design Standards (Section 3.1.18.C.)

This section outlines the design standards for a planned development. Additional site standards will be discussed from applicable sections of the Zoning Ordinance.

1. **Permitted Uses.** The predominant use on the site shall be consistent with the uses specified for the parcel on the Township's Comprehensive Plan for Future Land Uses.

The subject area for the planned development project is designated as Special Planning Area (SPA) on the 2020-2021 Amended Future Land Use Map, for the M-59/Cundy Road/Hartland Glen Golf Course area. Per the 2020-2021 Comprehensive Plan Amendment, this SPA would be developed as a planned development with a density that is flexible, with regards to the north and south portions of the SPA. A high density is envisioned for the northern portion of the Hartland Glen Golf Course property, up to five (5) dwelling units per acre, with a potential for a bonus density. The project area is located in the north portion of the SPA where a higher density is desired, thus is consistent with the FLUM.

2. **Residential Density.** *Residential density in a planned development shall be consistent with the density designation within the Township's Comprehensive Plan.*

Per the 2020-2021 Comprehensive Plan Amendment and Amended FLUM, the SPA is to have a base density of four (4) dwelling units per acre but allows for a higher density in the northern portion of the site, up to five (5) dwelling units per acre, and the southern portion of the site to have up to three (3) dwelling units per acre.

The Preliminary Plan proposes 148 dwelling units with a density of 5.45 dwelling units per acre. The proposed density exceeds the maximum allowed density of up to five (5) units per acre in the northern portion of the SPA. Per Section 3.1.18.C.iv, the Planning Commission may agree to recommend up to a forty (40%) percent increase in dwellings on a site in recognition of outstanding attributes as listed in this section. The Township Board in it is sole discretion shall have the ability to approve such density increase up to forty (40%) percent subsequent to an affirmative recommendation from the Planning Commission. In this case the planned development land area could accommodate 136 dwelling units (27.13 acres x 5 dwelling units per acre), in accordance with the Comprehensive Plan. The planned development plan could include up to 190 dwelling units (136 + 54 additional dwellings) if a maximum bonus (40% increase) were awarded by the Planning Commission and Township Board. The proposed development has 148 dwelling units; thus, consideration of a density bonus is applicable.

3. **Design Details.** *The applicant shall prepare a detailed description of design details to be implemented in the proposed planned development, to be presented in a Pattern Book.*

The design details are provided on the submitted site plans and architectural drawings for the Planned Development. A Pattern Book was not provided.

4. **Minimum Yard Requirements.** The minimum yard requirements are noted in the chart below per Section 3.1.18.C.vi.a.

Yard Location	Minimum PD Standard	Proposed setback*	Complies Yes/No
Along perimeter adjacent to public road	50 ft.	NA (PD is not adjacent to a public road)	NA
Along perimeter, but not adjacent to a road (north, south & west property lines	40 ft.	24 ft. (north) 34 ft. (south) 46 ft. (west)	No No Yes
Along an internal collector or local road (east)	40 ft.	100 ft. from bldg. to east property line; 57 ft. from bldg. to edge of Hartland Glen Lane pavement- ROW not indicated on plans	Yes

* As measured to closest point of building

Sheet C200 lists the proposed setbacks for the project area are as follows: front (50 feet); side (15 feet) and rear (25 feet), and setback lines for side and rear are shown on the plans. The front setback line is not shown. Staff is unsure how the applicant arrived at those setback designations or locations for the setback lines. Clarification may be required.

5. **Distances Between Buildings.** Spacing requirements for buildings in a planned development are outlined in Section 3.1.18.C.vi.b.3. *Residential buildings containing more than one unit (including: apartments; townhouses; and other attached dwellings) shall conform to the spacing requirements set forth in Section 3.1.7 (MDR – Medium Density Residential).*

Per Section 3.1.7, the required setbacks are as follows: front yard (30 feet); side yard (10 feet); and rear yard (25 feet). These standards are somewhat difficult to apply in this development as the buildings are not on individual parcels nor are individual building envelopes proposed. Sheet C200 provides proposed dimensional standards for building separation. The following chart lists the proposed standards and closest distance between buildings for each category.

Proposed Building Separation Standards		Closest Distance between Buildings on Plans
Front to Front:	15 feet	NA
Rear to Rear:	25 feet	31.5 feet
Side to Side:	15 feet	20.0 feet
Side to Rear:	15 feet	20.4 feet

Based on the plans, the buildings are placed to comply with the building separation standards as proposed by the applicant, although staff was unable to find an example where the Front to Front standard could be applied on the proposed plans. The proposed building separation standards would apply to future buildings or building additions. Each apartment building is placed a minimum of twenty-five (25) feet from the edge of the roadway or integral sidewalk.

There are no dedicated right-of-way or easement lines for any of the internal roads, so the residential structures are located twenty-five (25) feet from the actual pavement. Also, the structures, at their closest point, are located thirty (30) feet from the Hartland Glen Road pavement. There is no dedicated easement or right-of-way line for Hartland Glen Road.

6. **Building Height.** *No building in a planned development shall be greater than thirty-five (35) feet in height.*

The one-story buildings comply with this regulation. The mean building height is approximately twelve (12) feet.

7. **Parking and Loading.** Planned Developments shall comply with the parking and loading requirements specified in Section 5.8, Off-Street Parking requirements, and Section 5.9, Loading Space Requirements of the Zoning Ordinance.

Parking requirements are listed in Section 5.8.4.H (Table of Minimum Parking Space Requirements). For the category, Residential, Family, two (2) parking spaces are required for each dwelling unit, plus one (1) additional space for each four (4) dwellings. In this case, with 148 units, thirty-seven (37) additional parking spaces are required ($148 \div 4 = 37$), beyond the required two (2) spaces per dwelling unit.

Each apartment unit has an attached 2-stall garage, plus a 25-foot long, 16-foot-wide driveway, which could potentially accommodate up to two (2) additional vehicles. Parking is not permitted on the street, except in designated parking areas. A total of twenty-two (22) guest parking spaces are provided within the development, scattered throughout. Two (2) barrier-free parking spaces (van accessible) are provided by the leasing office. It appears sufficient parking is provided. To be noted, the required parking space dimensions are ten (10) feet wide by twenty (20) feet in length per the Zoning Ordinance standards. The guest parking spaces are shown as nine (9) feet wide by eighteen (18) feet in length.

- 8. Landscaping. Landscaping requirements are provided in Section 3.1.18.C.vi.e. These are considered minimum design standards, typically for a commercial or office development. A more detailed review of the landscaping is provided in this memorandum using applicable landscape standards outlined in Section 5.11 (Landscaping and Screening).
- 9. **Open Space.** Open space shall be provided to complement and accentuate the high-quality design of the proposed planned development. At minimum the planned development shall provide open space consistent with the previous zoning designation for the site.

Per this section of the Zoning ordinance (Section 3.1.18.C.vi.f,), the planned development shall provide open space consistent with the previous zoning designation for the site, at a minimum. Currently the site is zoned CA-Conservation Agricultural. In CA, the open space requirement is a minimum of 85%, for a single-family detached dwelling. The proposed plan states the open space is 42% of the site, and thus would not comply. Historically however, open space requirements outlined in Section 3.15 of the Zoning Ordinance have been applied for other single-family residential planned developments in the Township such as Walnut Ridge Estates and Fiddler Grove.

Section 3.15 of the Zoning Ordinance states residential condominium developments (in several zoning district classifications) should provide a minimum of 25% open space, with a minimum of 10% of the total open space to be useable open space ("useable open space" is defined as land area suitable for active recreation). For the proposed development consisting of 27.13 acres, this would equate to a minimum of 6.79 acres of open space, with a minimum of 2.71 acres of useable open space.

The Open Space Plan states the proposed open space is approximately 16.02 acres, or 59% of the PD; and 12.15 acres as useable open space, or 44.8% of the site. Open space areas include lawn area, sidewalk area, detention pond, and wetlands. Lawn areas and sidewalk are noted as usable open space.

10. **Natural Features**. Consistent with the stated intentions for creation of these regulation, the preservation of the natural features of the Township are an important planning consideration. A PD proposal must consider the natural topography and geologic features, scenic vistas, trees and other vegetation and natural drainage patterns that exist on the site and propose a development pattern which preserves and avoids disruption of those natural features as much as possible.

Alta surveys are provided which show existing features of the site. The site is currently functioning as a golf course. Three (3) existing ponds and associated wetland areas are shown. The applicant states these features will remain undisturbed. The intention is to utilize the existing topography without the need for major earthwork changes. Existing drainage patterns will be maintained and treated in accordance with County and State regulations, per the applicant.

11. Sidewalks and Pedestrian Access. The applicant must demonstrate the PD site, and all uses within the site, will be connected to any existing pedestrian and nonmotorized vehicle paths and trails within a public right-of-way or easement open to the public.

A 5-foot-wide integral sidewalk is shown on one side of each private road within the development. five (5) foot wide sidewalks are provided in the central open space areas, as well as along the west side of Hartland Glen Lane. This sidewalk terminates at the north at the intersection of Cundy Road and Hartland Glen Lane. Currently sidewalks are not found along Highland Road or properties north of the PD site on Cundy Road.

Requirements for Preliminary Review (Section 3.1.18.E.ii)

Following is a summary of items that have not been addressed in the previous review as part of the Design Standards section.

1. Traffic Impacts.

The proposed planned development is directly accessed via a private roadway, Hartland Glen Lane. Access to Hartland Glen Lane can occur via Cundy Road, which terminates at Highland Road. A traffic generation memo, dated January 14, 2021, prepared by Bergmann Associates, provides a summary of trip generations studies that were completed for seven (7) other Redwood developments, three (3) sites in Ohio and four (4) in Michigan. Those results indicate that a Redwood development can be expected to generate 0.33 trips per unit during the AM peak hour and 0.43 trips per unit during the peak PM hour. Based on this data, the site-generated vehicle trips do not meet the minimum threshold (50 peak hour directional trips) to require a traffic impact analysis or further study.

2. Fiscal Impacts.

The applicant has provided a response to this topic in the document labeled "Hartland Impact Analysis - Redwood Neighborhood".

3. Vehicular Circulation.

As noted, the site is accessed at two (2) points via a private roadway, Hartland Glen Lane. This paved roadway has provided access to the Hartland Glen Golf Course and clubhouse for years. The plans indicate the roadway is approximately twenty (20) feet wide, but additional details were not provided. It is anticipated that Hartland Glen Lane will be able to effectively serve as the access road to Redwood Living PD.

Concrete private roadways provide internal circulation within the Planned Development. A construction detail of the roadway is shown on Sheet C700. The travel lane width is twenty-two (22) feet plus there is an integral 5-foot-wide integral sidewalk on one side of the roadway, for a total road width of twenty-seven (27) feet. In a few instances the 5-foot integral sidewalk is shown on both sides of the roadway, thus the total width is thirty-two (32) feet. The integral sidewalk is scored and stained to delineate it from the travel lane. Curb and gutter are not provided. The private roadways will not meet the private road standards as outlined in Section 5.23 of the Zoning Ordinance.

Per the applicant this type of roadway design is appropriate for the PD as the internal roads handle low traffic volumes, a posted speed limit of 12 MPH is required by Redwood, and on-street parking is not allowed by Redwood.

It should be noted that currently the only access to the PD site is via Hartland Glen Lane; however, it is anticipated that future development will occur to the east, west and south of the PD site, and there will be new opportunities for vehicular connections for this PD. Hartland Glen Lane was never formally approved as a private roadway and would be considered a non-conforming roadway. Since Redwood and Hartland Glen Golf Course will both use this road, staff has requested a maintenance agreement be required and submitted as part of the Final PD for this roadway. In addition, any connection to the east should be permitted and made part of the Final PD agreement.

4. Landscaping (Section 5.11).

Applicable sections of Section 5.11 (Landscaping and Screening) will be applied to the PD, as outlined below.

A. Canopy trees along Internal Roadways (Sec. 5.11.2.C.ii.) -

- Required 15-foot-wide landscaped area along the length of internal roadways, planted with a minimum of 1 canopy tree or evergreen tree for every 30 feet or portion thereof. Required canopy tree size is a minimum 3-inch caliper tree at the time of planting
- Proposed 1 canopy tree per unit, planted in front of each unit but not at a standard interval; street tree placed approximately ten (10) feet from the edge of the integral sidewalk. Proposed canopy tree size is 2.5-inch caliper tree, except at along the main entry (from the north property line to the northern access road into the PD). These trees are 3" caliper trees.
- Meets Requirement? TDB; street trees planted at varying intervals; tree size is not compliant except for trees along main entry
- Comment Per the applicant tree spacing varies due to the varied building types and driveway locations. Regarding the tree size, the applicant states the smaller caliper trees have less stress when planted and the lawn areas are irrigated which will promote tree growth. Planning Commission to determine if the proposed street tree locations and tree caliper (size) are acceptable.
- B. Buffering or Screening (Sec. 5.11.2.G.i.) Screening between Land Uses (north property line where abutting single-family zoned properties)

- Required landscape buffer shall be provided to create a year-round visual screen at least eight (8) feet in height along all adjoining boundaries of a non-residential use or a residential use of higher density and abutting a single family residential zoned property. Evergreen trees to be planted in a staggered or clustered pattern with varying tree heights.
- Proposed plantings along the PD north property line, within the 15-foot setback area of the PD property; plant materials include a mix of a variety of deciduous/canopy trees and evergreen trees of varying heights and sizes; deciduous shrubs; and ornamental trees. The 15-foot-wide planting area appears to be located within the PD property and is not labeled as a landscape easement.
- Meets Requirement? TBD; the proposed screening is a mix of deciduous and evergreen trees, deciduous shrubs, and ornamental trees, and not an evergreen screen as required; proposed evergreen trees are not staggered or clustered.
- Comment Planning Commission to determine if the proposed planting plan meets the intent of the screening requirement. Additionally, clarification is required from the applicant/property owner(s) regarding the location of the proposed Landscaping Easement area. Revised plans may be required to show the proposed Landscape Easement and labeled accordingly. Revisions to the Landscape Easement Agreement may be required as well.
- C. Detention/Retention Area Landscaping (Sec. 5.11.2.H.)
 - Required detention/retention ponds must be integrated into the overall design of the property and landscaped to provide a natural setting; 1 canopy or evergreen tree and 10 medium, 6 large shrubs or ornamental trees must be planted for every 50 ft. of pond perimeter. Pond Perimeter approx. 1,715 lineal ft. EQUATES TO: 34 canopy or evergreen trees, and 340 medium shrubs, or 204 large shrubs or ornamental trees
 - Proposed 20 trees (10 deciduous trees and 10 evergreen trees); 37 medium shrubs; 39 medium shrubs; and 85 ornamental trees total equates to 124 (large shrubs + ornamental trees)
 - Meets Requirement? TBD; plant number deficiencies in each category.
 - Comment Planning Commission to determine if the proposed planting plan meets the intent of the detention landscaping requirements. To be noted, the proposed spacing on some of the tree species should be adjusted, as some are planted too close together. The side slopes of the detention pond are 4 to 1. The Township Engineer (HRC) has noted detention basin side slopes greater than one vertical to five horizontal require fencing. The side slopes should be adjusted to avoid fencing.
- D. Apartment Unit Landscaping

Section 5.11 does not provide landscape standards for apartment buildings. Foundation planting plans for each building model are provided in the plan set on Sheet L1.4 (Typical Foundation Planting). All planted areas will be maintained by Redwood. Irrigation is provided for all front lawns and a minimum of ten (10) feet surrounding the sides and rear of each building. Planting plans for the entrance sign, leasing office, and pavilion are shown on Sheet L1.3.

Comments:

The entrance sign and landscaping feature as well as street trees are landscaped with hardwood mulch. Apartment units are landscaped with washed river rock (approximately 1 inch in diameter in the front, side and rear landscape beds. This is a deviation from the Zoning Ordinance requirement to use shredded hardwood mulch. The applicant notes that the river rock is used to protect the siding from damage caused by mowers and landscaping equipment. Additionally, river rock is used in the rear of the units where AC compressors are placed. Some areas are labeled as 'Gravel mow strip'' or "native gravel mulch", which staff assumes is a reference to river rock.

5. Architecture/Building Materials (Sec. 5.24)

Architectural standards for façade materials are not provided in Section 5.24 for multiple family buildings. A facade materials summary document was submitted by the applicant which lists the façade material percentages for each building model. Generally, the façade materials for each building model include vinyl horizontal siding; vinyl shakes; glass; and stone veneer. The proposed exterior colors for the siding and shakes are earthtones, of tan, khaki, russet, and light green tones.

Typically, higher quality façade materials are expected in a residential planned development, with limited use of vinyl for siding, shakes, or other architectural details. The use of other products such as cementitious siding is encouraged. The Planning Commission may want to discuss the proposed façade materials and suggest other options.

There are six (6) building styles: Haydenwood; Breezewood; Forestwood; Willowood; Meadowood; and Capewood. The single-story buildings are comprised of multiple apartment units as follows: 3-unit (1 building), 4-unit (12 buildings), 5-unit (5 buildings), and 6-unit (12 buildings).

Variation in the architecture is offered with the option of a screened-in rear porch, front porch, sunroom, roof dormers, and varying roof profiles. Outdoor patio areas on the rear side of the building are offered for some of the models. There are several floor plan options depending on the building model. The buildings are staggered along the road frontage to enhance the view of the buildings and avoid a "barracks" feel to the development.

The site plans outline the building materials and percentages of building materials. For this staff memorandum, staff did not outline those in the memorandum; however, they are available on the plans and in a separate document as an attachment.

Other Requirements-Zoning Ordinance Standards

Nothing additional at this time.

Hartland Township DPW Review

A review letter is provided from the Hartland Township DPW Director, dated June 15, 2021

Hartland Township Engineer's Review (HRC)

The Township Engineer (HRC) has reviewed the Preliminary PD plans and recommends approval subject to items being addressed in the letter dated June 16, 2021.

Hartland Deerfield Fire Authority Review

The Hartland Deerfield Fire Authority has reviewed the plans and provided comments in the letter dated May 26, 2021. Approval is subject to the contingencies being addressed as outlined in the letter.

Attachments:

- 1. DPW review letter dated 06.15.2021-PDF version
- 2. Hartland Deerfield Fire Authority review letter dated 05.26.2021- PDF version
- 3. Applicant letter dated 05.13.2021- PDF version
- 4. Applicant's Narrative on plan changes dated 05.13.2021- PDF version
- 5. Hartland Impact Analysis 02.19.2021- PDF version
- 6. Trip Generation Memo dated 01.14.2021- PDF version
- 7. General Development Schedule- PDF version
- 8. Landscape Easement letter 05.11.2021- PDF version

- 9. Owner Authorization letter Hartland Glen 06.10.2020- PDF version
- 10. Redwood plan with housing types- PDF version
- 11. Redwood site plan color rendering- PDF version
- 12. Fountain detail- PDF version
- 13. Leasing office floor plan- PDF version
- 14. Redwood Hartland unit exterior material calcs. -PDF version
- 15. Screened patio & front porch elevations-PDF version
- 16. Open space plan dated 05.14.2021- PDF version
- 17. Redwood PD concept Plan 07.16.2020-PDF version
- 18. Redwood Hartland Preliminary PD Plan 05.14.2021
- 19. Township Engineer (HRC) review letter dated 06.16.2021- PDF version

CC:

HRC, Twp Engineer (via email)

M. Luce, Twp DPW Director (via email)

A. Carroll, Hartland FD Fire Chief (via email)

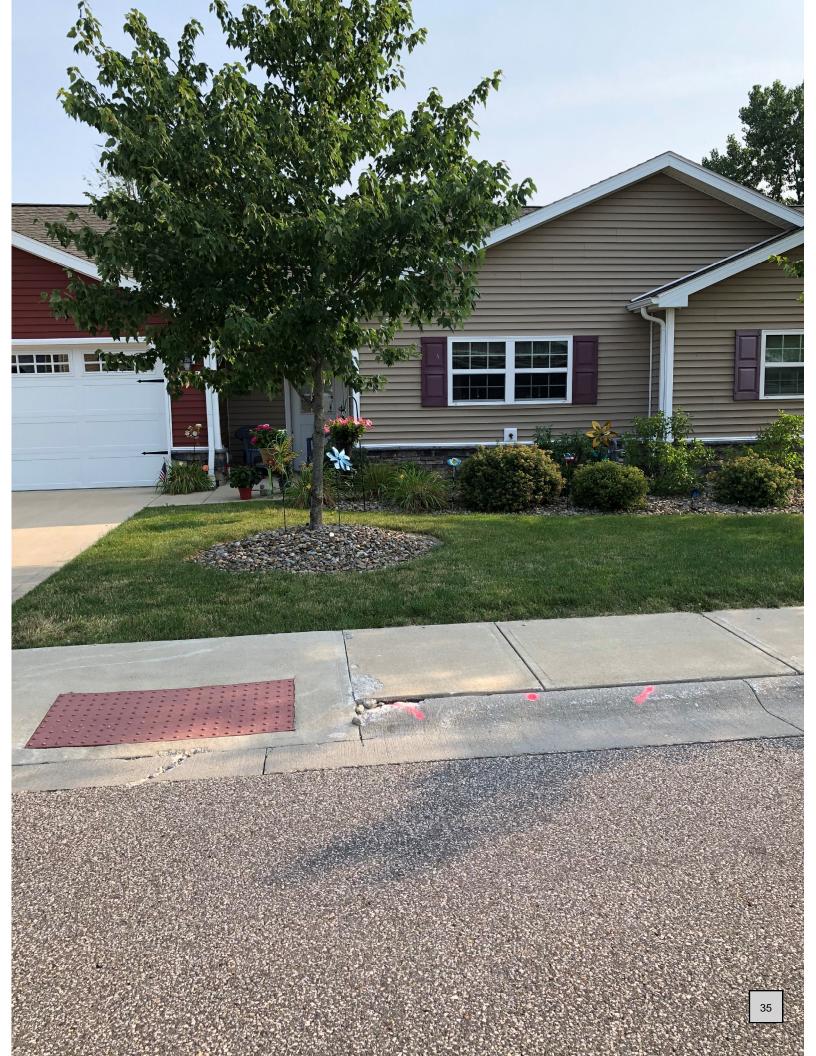
T:\PLANNING DEPARTMENT\PLANNING COMMISSION\2021 Planning Commission Activity\Site Plan Applications\SP PD #21-005 Redwood Prelim Plan\Staff Reports\SP #21-005 Redwood PD Prelim PC Staff report 06.17.2021.docx





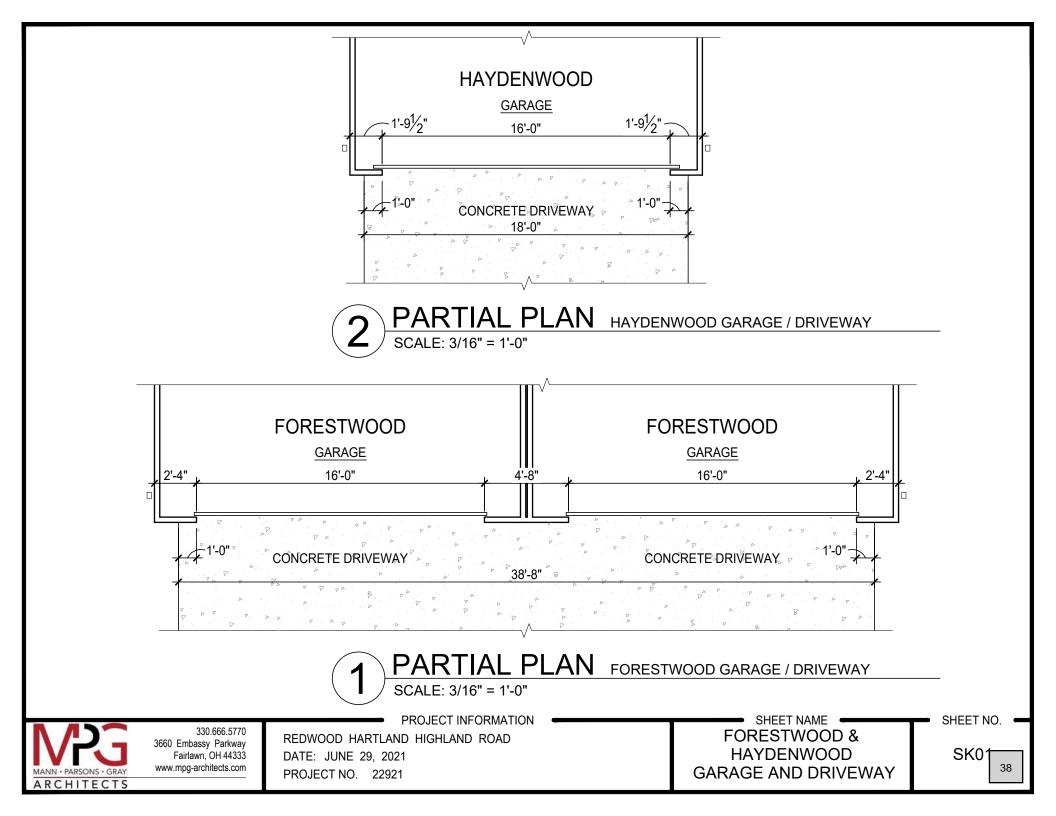












PROPOSED CUNDY ROAD

DEVELOPMENT PLANS FOR REDWOOD LIVING **RESIDENTIAL DEVELOPMENT** HARTLAND TOWNSHIP, MICHIGAN

PROJECT CONTACTS

CIVIL ENGINEER BERGMANN 7050 W SAGINAW HWY LANSING, MI 48917 IAN GRAHAM, P.E. (517) 272-9835

UTILITY AND JURISDICTIONAL CONTACTS PLANNING AND ZONING HARTLAND TOWNSHIP 2655 CLARK ROAD HARTLAND, MICHIGAN 48353 TROY LANGER 810-632-7498

WATER MAIN HARTLAND TOWNSHIP 2655 CLARK ROAD HARTLAND, MICHIGAN 48353 MICHAEL LUCE 810-632-7498 SANITARY SEWER

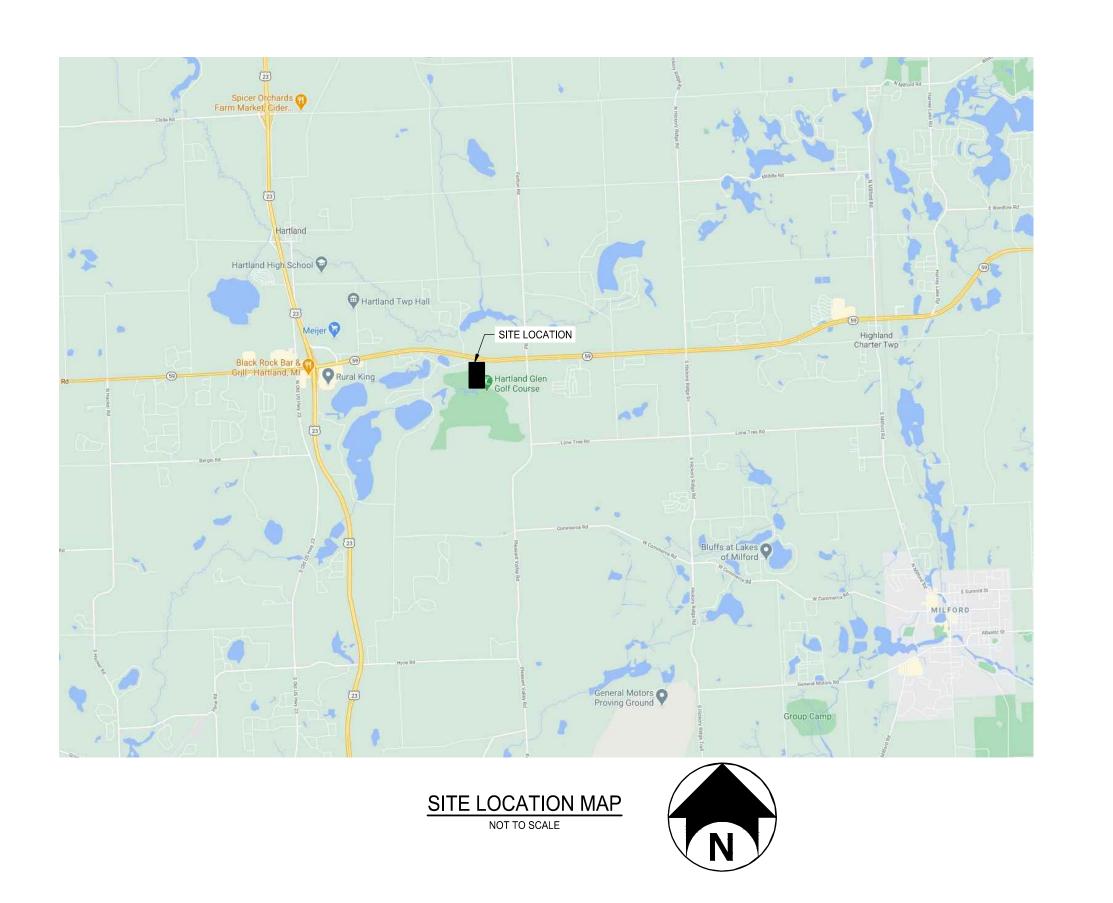
LIVINGSTON COUNTY DRAIN COMMISSIONER 2300 E GRAND RIVER AVE SUITE 105 HOWELL, MICHIGAN 48843 517-546-0040

STORM WATER AND SOIL EROSION AND SEDIMENTATION LIVINGSTON COUNTY DRAIN COMMISSIONER 2300 E GRAND RIVER AVE SUITE 105 HOWELL, MICHIGAN 48843 517-546-0040 **ROADS & ENTRANCE**

LIVINGSTON COUNTY ROAD COMMISSION 3535 GRAND OAKS DRIVE HOWELL, MICHIGAN 48843 517-546-4250

OWNER

REDWOOD LIVING 7007 EAST PLEASANT VALLEY ROAD INDEPENDENCE, OH 44131 PATRICIA RAKOCI (216) 505-8581



DRAWING KEY INCLUDED IN PLAN SET

Sheet Number

C000 X100 X101

C200

C201

C203

C300

C301 C302

C400

C401

C402

C403

C700

A1.1

A1.2

A1.3

A1.4

A1.5

A1.6

A1.7

L1.0

L1.1

L1.2

L1.3

L1.4 SD1.0

☐ NOT INCLUDED IN PLAN SET

Sheet List Table
Sheet Title
COVER SHEET
ALTA SURVEY
ALTA SURVEY
ALTA SURVEY
PRELIMINARY SITE PLAN
NORTH PRELIMINARY SITE PLAN
SOUTH PRELIMINARY SITE PLAN
DPEN SPACE PLAN
PRELIMINARY GRADING PLAN
NORTH PRELIMINARY GRADING PLAN
SOUTH PRELIMINARY GRADING PLAN
PRELIMINARY UTILITY PLAN
NORTH PRELIMINARY UTILITY PLAN
SOUTH PRELIMINARY UTILITY PLAN
DFF-SITE PRELIMINARY UTILITY PLAN
SITE DETAILS
BUILDING FLOOR PLANS AND ELEVATIONS
OVERALL REFERENCE PLAN
NORTH LANDSCAPE PLAN
SOUTH LANDSCAPE PLAN
ANDSCAPE PLAN ENLARGEMENTS
TYPICAL FOUDNATION PLANTING
ANDSCAPE AND SITE DETAILS

REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



7007 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Survevors, D.P.C. 7050 West Saginaw Hwy. Suite 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

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DATE

5/14/2021

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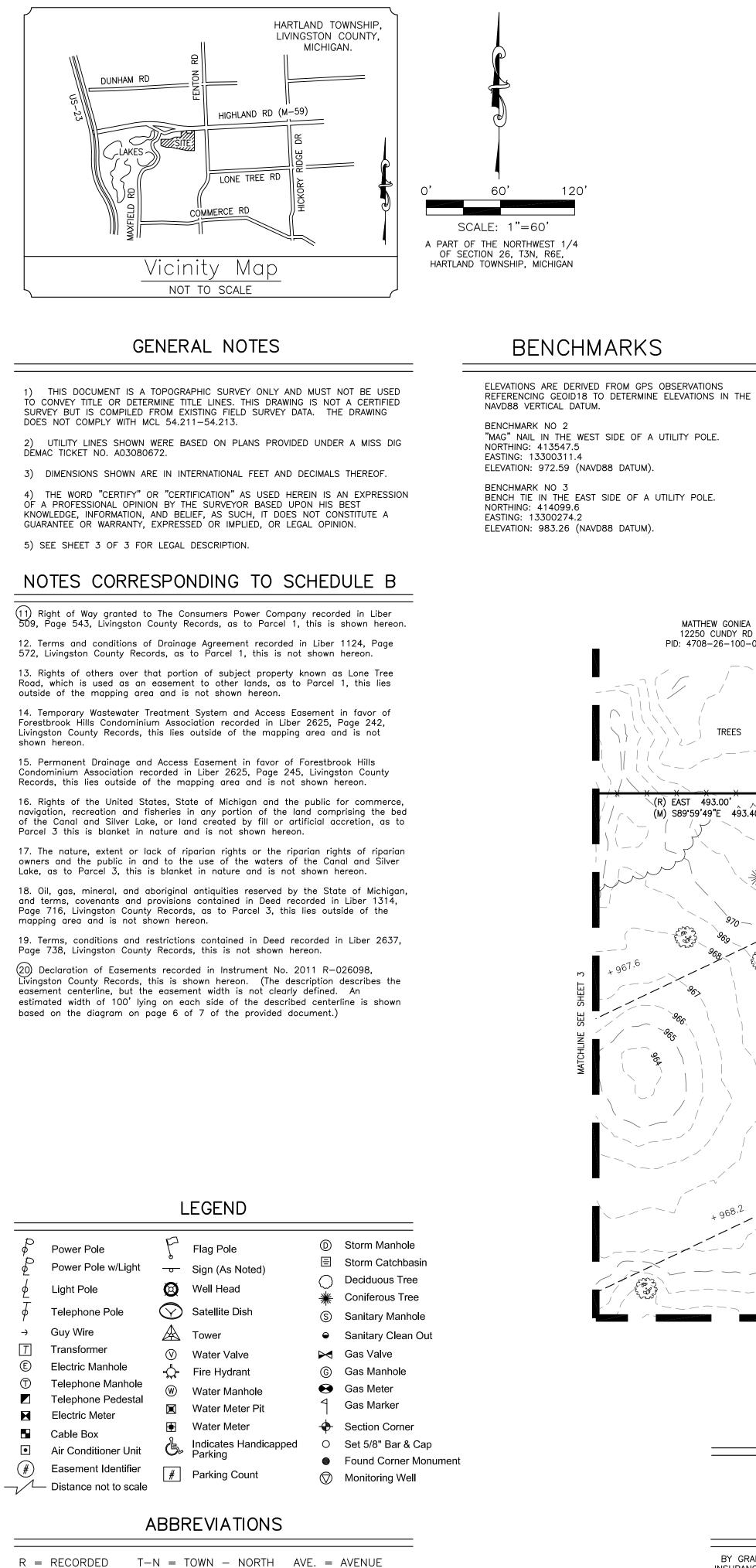
Project Manager: I. GRAHAM, PE Designed By: I. GRAHAM, PE Date Issued: JANUARY 14, 2021

Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number 14648.00

COVER SHEET

Drawing Number:





R-E = RANGE - EAST BLVD. = BOULEVARD

RD. = ROAD

ST. = STREET

PID = PARCEL AND

OWNER IDENTIFICATION

SQ. FT. = SQUARE FEET CT. = COURT

NE = NORTHEAST

SE = SOUTHEAST

SW = SOUTHWEST

NW = NORTHWEST

M = MEASURED

N = NORTH

S = SOUTH

E = EAST

W = WEST

C = CALCULATED



120'

MATTHEW GONIEA

12250 CUNDY RD

TREES

(R) EAST 493.00'

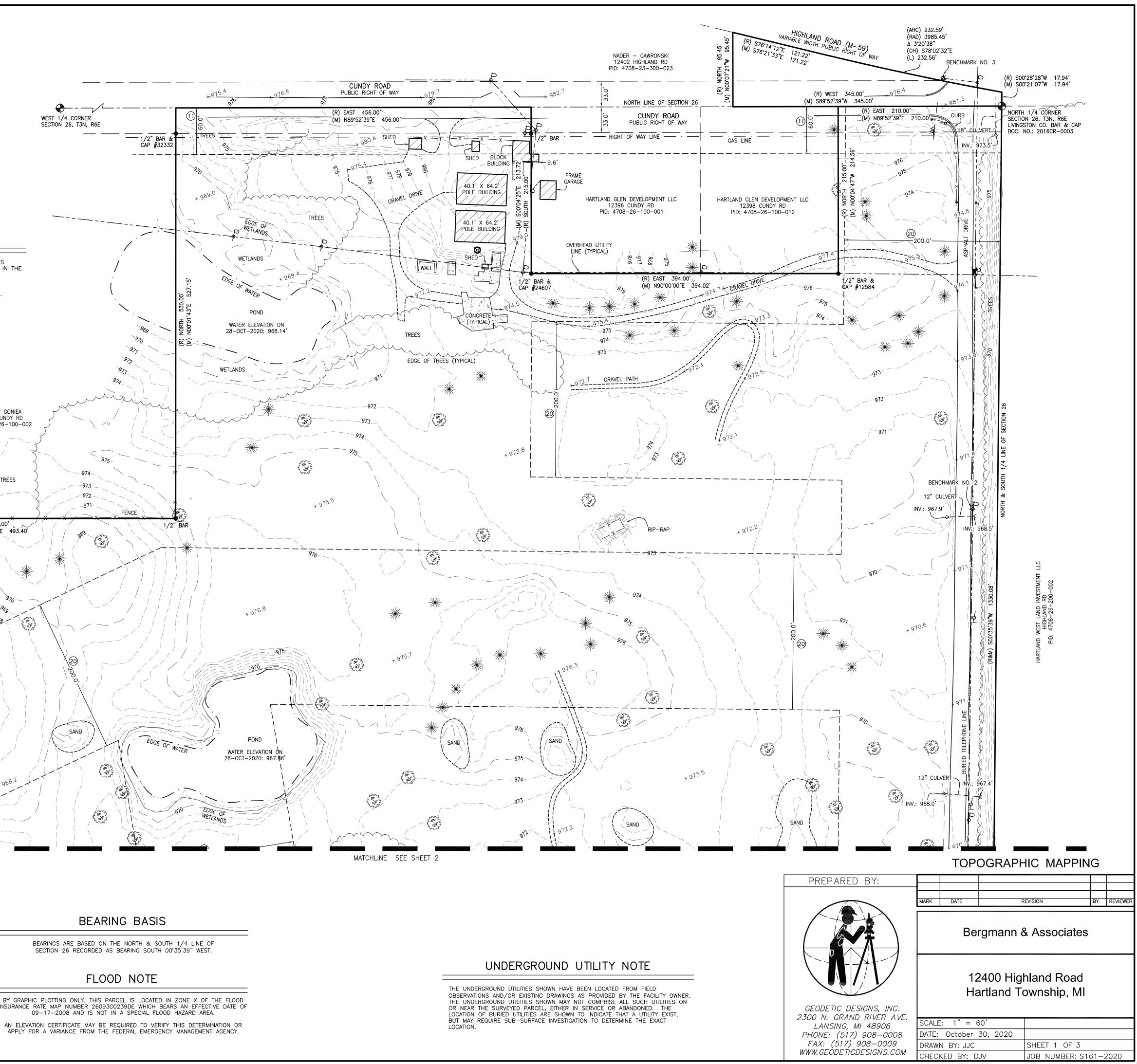
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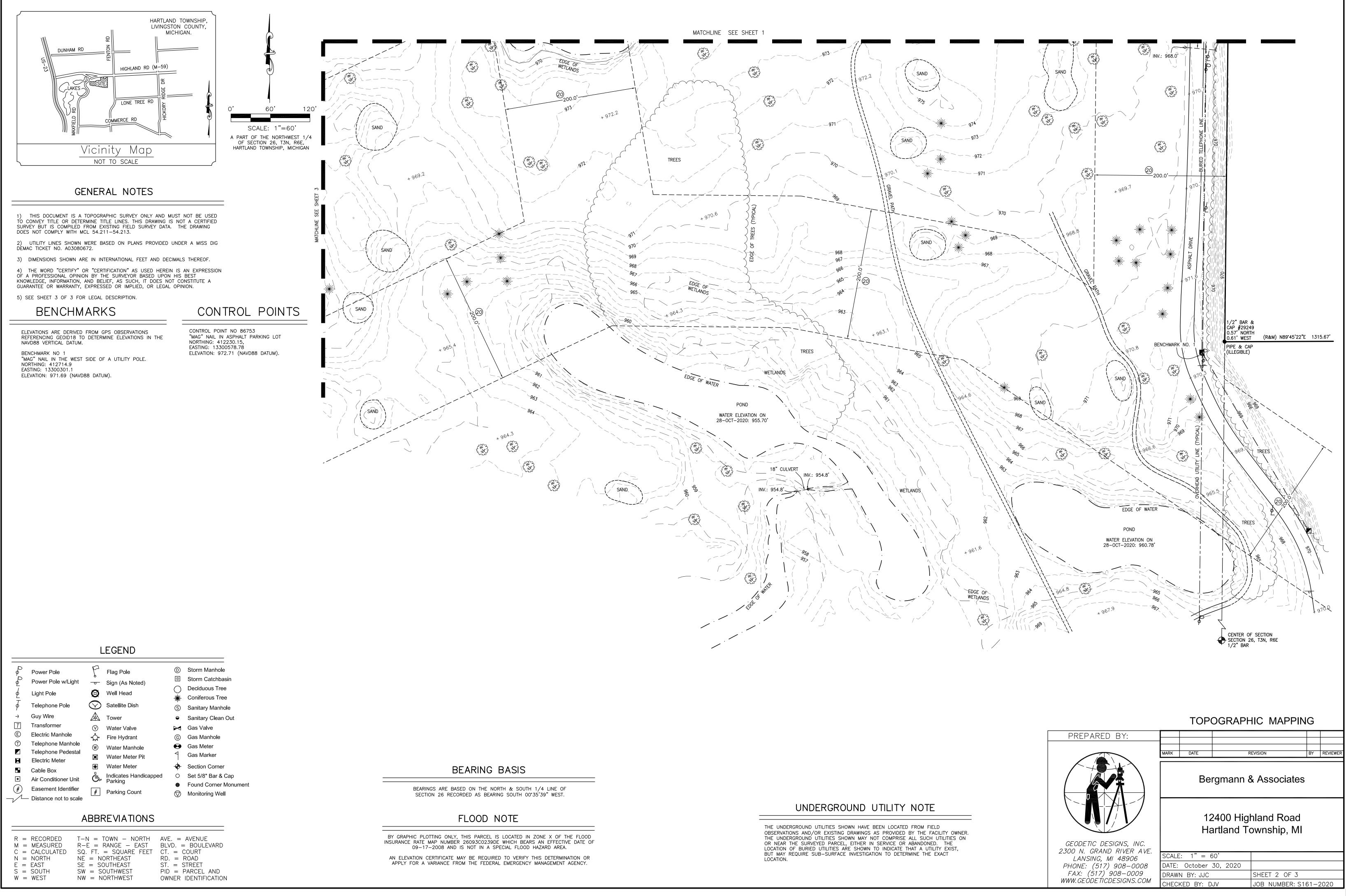
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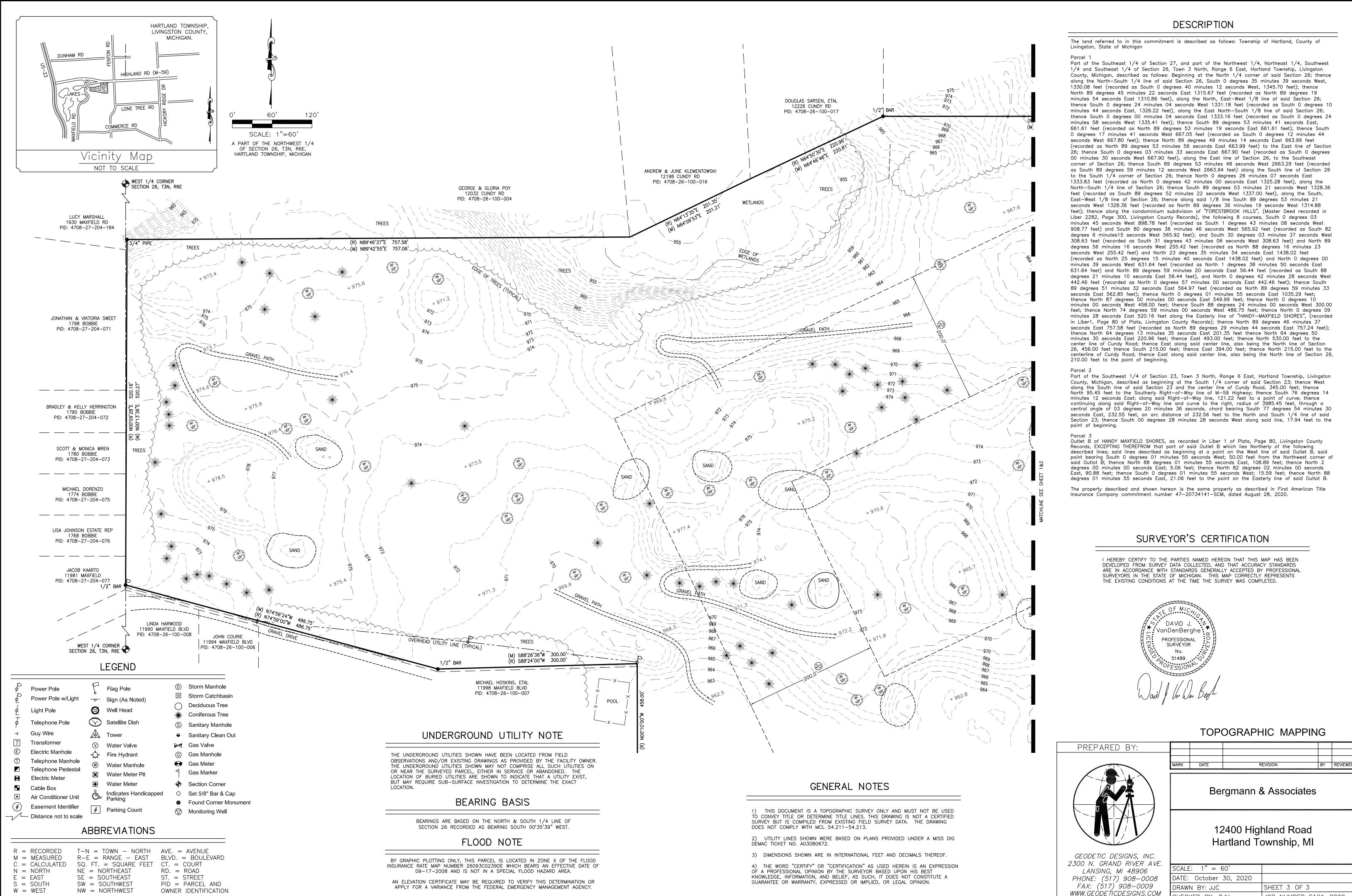




SECTION 26 RECORDED AS BEARING SOUTH 00'35'39" WEST.

INSURANCE RATE MAP NUMBER 26093C0239DE WHICH BEARS AN EFFECTIVE DATE OF 09-17-2008 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. AN ELEVATION CERTIFICATE MAY BE REQUIRED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

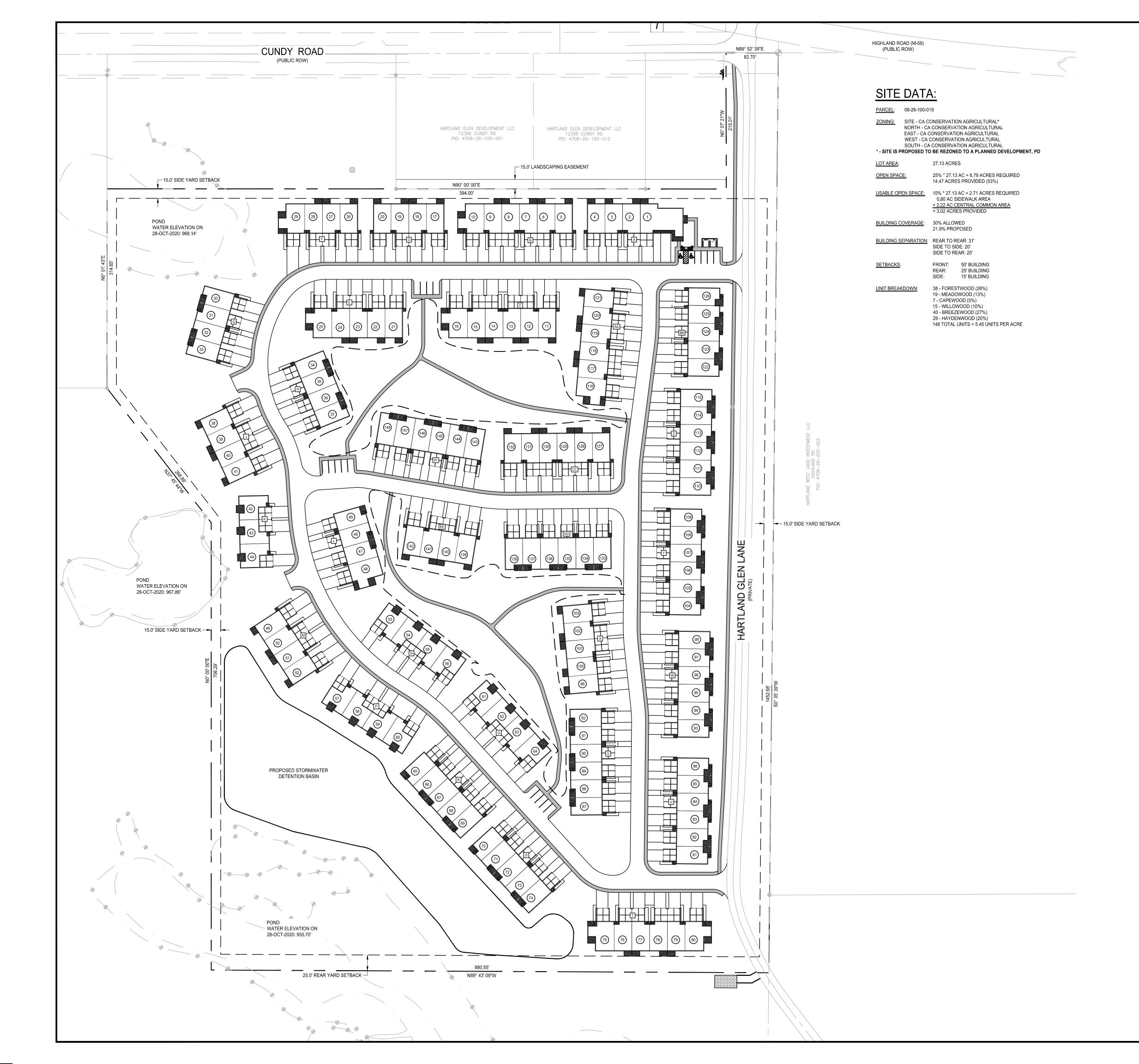




HECKED BY: DJV



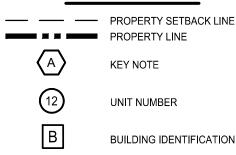
JOB NUMBER: S161-2020



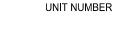
GENERAL NOTES:

- THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD MAPS, THEY ARE NOT CERTIFIED TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
- 3. ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES.
- 4. REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSIONS.
- 5. THE CONTRACTOR SHALL CONSULT THE CONSTRUCTION MANAGER BEFORE DEVIATING FROM THESE PLANS.
- 6. IN ALL TRENCH EXCAVATIONS, CONTRACTOR MUST LAY THE TRENCH SIDE SLOPES BACK TO A SAFE SLOPE, USE A TRENCH SHIELD OR PROVIDE SHEETING AND BRACING.
- 7. ALL EXISTING SURFACE APPURTENANCES (I.E. WATER VALVES, CATCH BASIN FRAMES AND GRATES, MANHOLE COVERS) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISHED GRADE.
- AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- 9. THE CONTRACTOR SHALL CALL "MISS DIG" AT LEAST 3 WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
- 10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, ORDINANCES, DESIGN STANDARDS AND STANDARD SPECIFICATIONS OF THE AGENCIES WHICH HAVE THE RESPONSIBILITY OF REVIEWING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS INCLUDED IN THESE PLANS.
- 11. UNLESS SPECIFICALLY STATED, THE CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS AS REQUIRED FOR CONSTRUCTION OF THIS PROJECT PRIOR TO THE BEGINNING OF WORK FROM THE PREVIOUSLY MENTIONED AGENCIES.
- 12. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 13. WHEN ANY EXISTING UTILITY REQUIRES ADJUSTMENT OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY COMPANY AND COORDINATE THE WORK ACCORDINGLY. THERE SHALL BE NO CLAIM MADE BY THE CONTRACTOR FOR ANY COSTS CAUSED BY DELAYS IN CONSTRUCTION DUE TO THE ADJUSTMENT OR RELOCATION OF UTILITIES.
- 14. THE CONTRACTOR IS TO VERIFY THAT THE PLANS AND SPECIFICATIONS THAT HE/SHE IS BUILDING FROM ARE THE VERY LATEST PLANS AND SPECIFICATIONS THAT HAVE BEEN APPROVED BY ALL APPLICABLE PERMIT-ISSUING AGENCIES AND THE OWNER. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING THE FINAL APPROVAL AND PERMITS HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
- 15. SHOULD THE CONTRACTOR ENCOUNTER CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, HE/SHE SHALL SEEK CLARIFICATION IN WRITING FROM THE CONSTRUCTION MANAGER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT THE SOLE EXPENSE TO THE CONTRACTOR.
- 16. THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES AND DEVIATIONS FROM APPROVED DRAWINGS.
- 17. ALL SIGNS AND TRAFFIC CONTROL MEASURES DURING CONSTRUCTION AND MAINTENANCE ACTIVITIES SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.M.U.T.C.D.).
- 18. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE STANDARDS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION OR THE AUTHORITY HAVING JURISDICTION.

SITE LEGEND:



KEY NOTE



BUILDING IDENTIFICATION

REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



7007 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy. Suite 200

Lansing, MI 48917 office: 517.272.9835 fax: 517.272.9836

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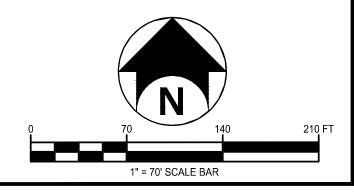
Project Manager: I. GRAHAM, PE Designed By I. GRAHAM, PE Date ssued JANUARY 14, 2021

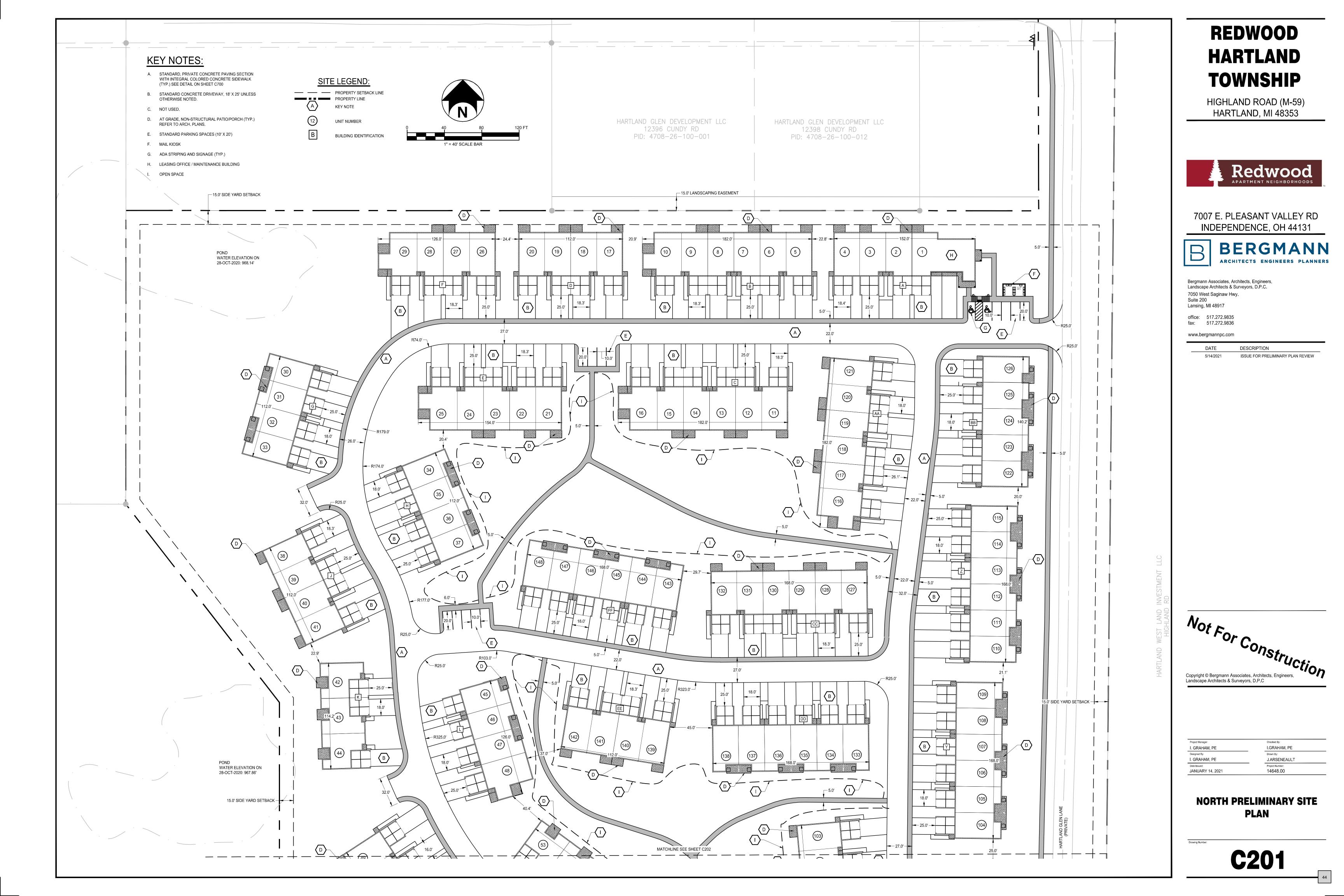
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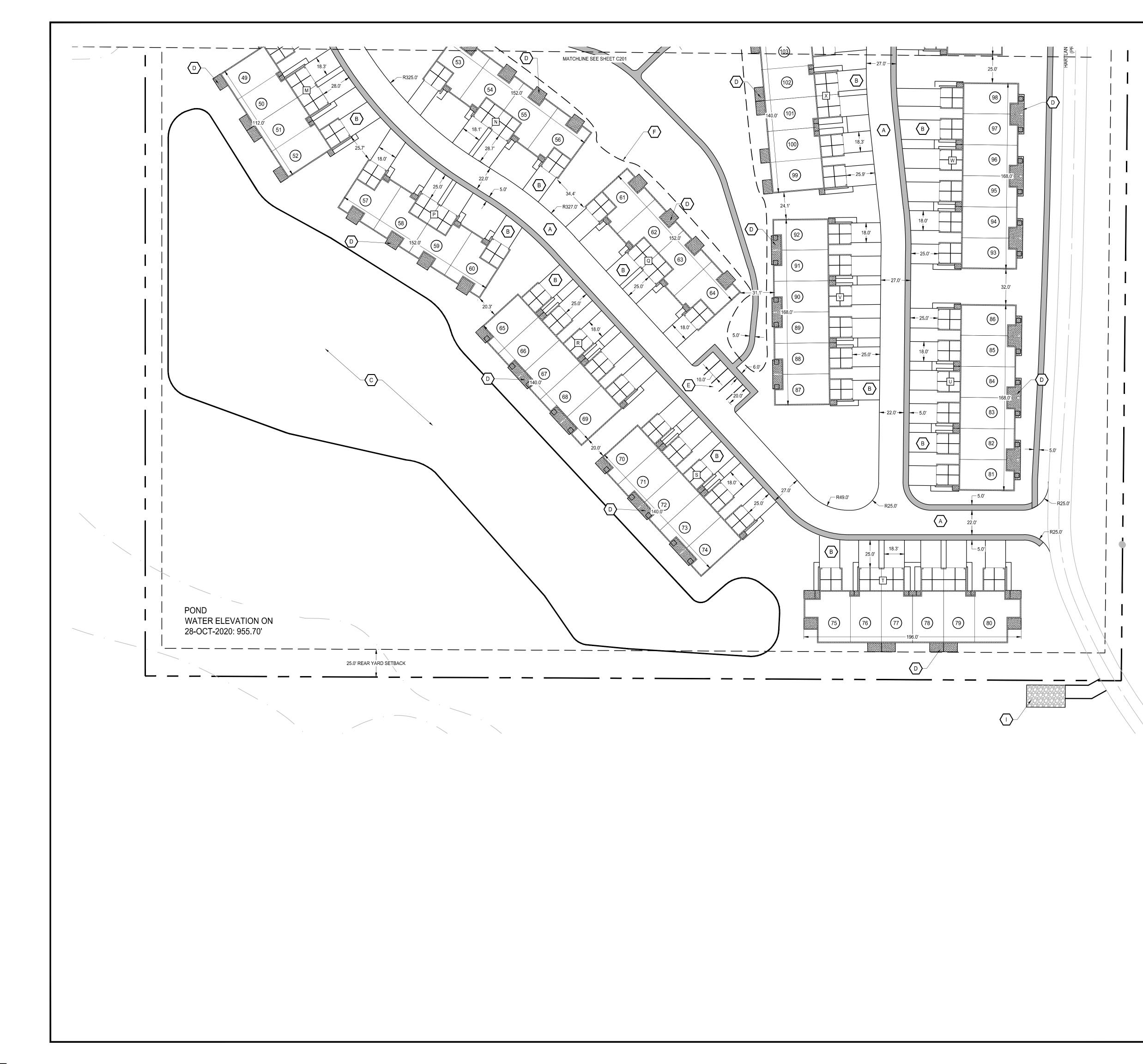
Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number 14648.00

PRELIMINARY SITE PLAN

C200







REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



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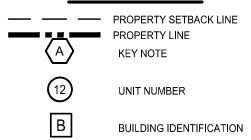
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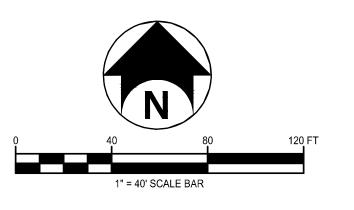
DESCRIPTION

KEY NOTES:

- A. STANDARD, PRIVATE CONCRETE PAVING SECTION WITH INTEGRAL COLORED CONCRETE SIDEWALK (TYP.) SEE DETAIL ON SHEET C700
- B. STANDARD CONCRETE DRIVEWAY, 18' X 25' UNLESS OTHERWISE NOTED.
- C. STORMWATER MANAGEMENT FACILITY
- D. AT GRADE, NON-STRUCTURAL PATIO/PORCH (TYP.) REFER TO ARCH. PLANS.
- E. STANDARD PARKING SPACES (10' X 20')
- F. OPEN SPACE
- G. NOT USED.
- H. NOT USED.
- I. LIFT STATION

SITE LEGEND:





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Project Manager:		
I. GRAHAM, PE		
Designed By:		
I. GRAHAM, PE		
Date Issued:		
JANUARY 14, 2021		

Drawing Number:

Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number: 14648.00

SOUTH PRELIMINARY SITE PLAN





REDWOOD
HARTLAND
TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



7007 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy Suite 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

www.bergmannpc.com DATE

5/14/2021

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Project Manager: I. GRAHAM, PE Designed By: I. GRAHAM, PE Date Issued: JANUARY 14, 2021

Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number: 14648.00

OPEN SPACE PLAN



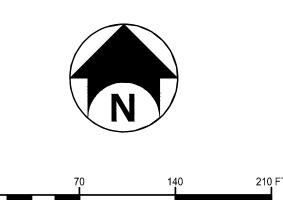
OPEN SPACI		
TOTAL PARCEL AREA	27.13	AC
REQUIRED OPEN SPACE	6.79	AC
REQUIRED USABLE OPEN SPACE	2.71	AC
LAWN AREA	11.35	AC
SIDEWALK AREA	0.80	AC
DETENTION POND AREA	1.87	AC
WETLAND AREA	2.02	AC
TOTAL USABLE OPEN SPACE (LAWN AREA + SIDEWALK AREA) =	12.15	AC
TOTAL OPEN SPACE (LAWN AREA + SIDEWALK AREA + DETENTION POND + WETLANDS) =	16.02	AC

SITE LEGEND:

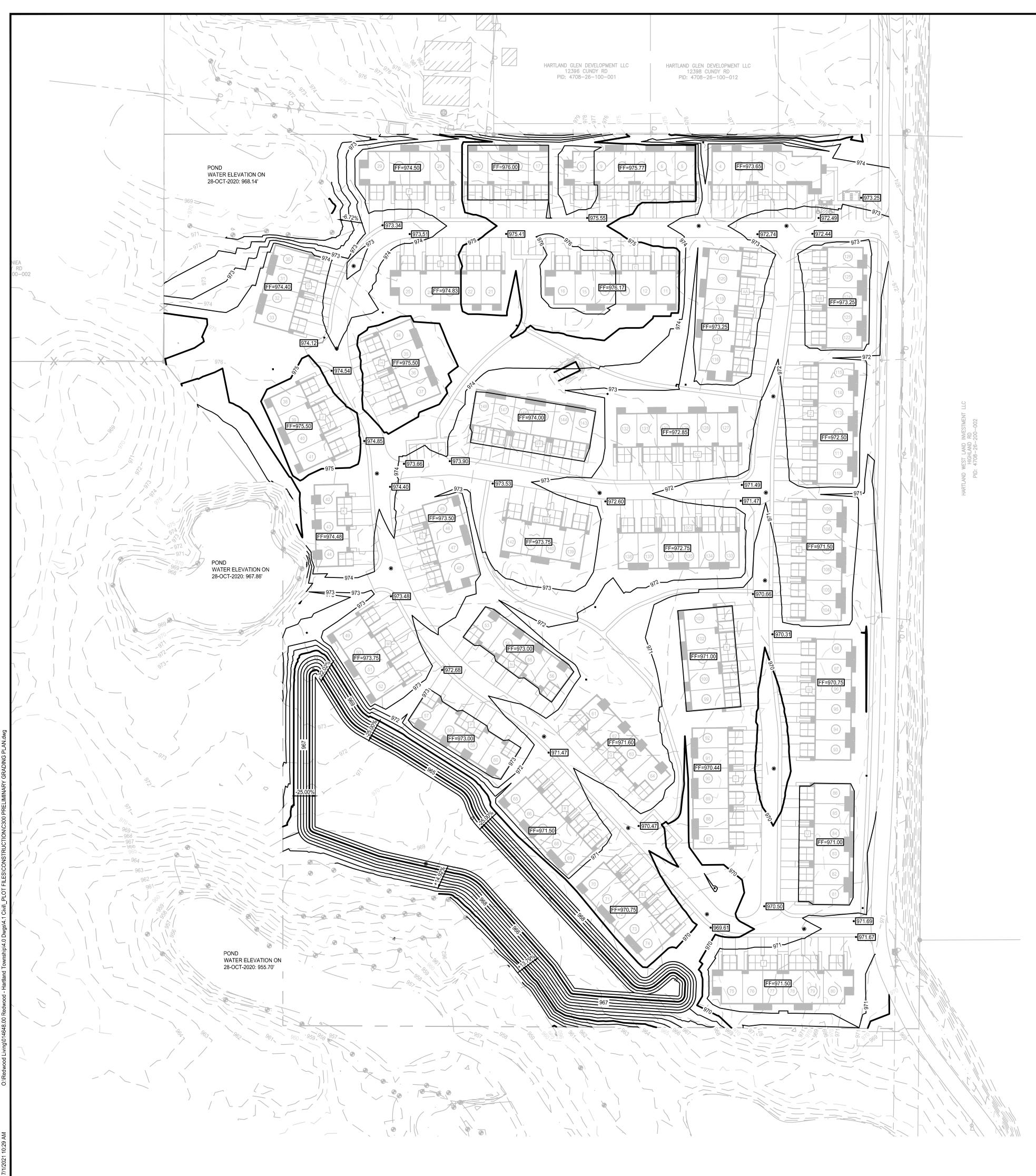


USABLE OPEN SPACE AREA REGULATED WETLAND AREA

PROPOSED SIDEWALK



1" = 70' SCALE BAR



GRADING NOTES

- 1. REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR REQUIRED EROSION AND SEDIMENT CONTROL MEASURES.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE VEGETATION HAS OCCURRED COMPLETELY.
- 3. ALL SILT FENCE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
- 5. SILT FENCE, JUTE MESH, AND/OR EROSION CONTROL BLANKETS WILL BE USED ON STEEP SLOPES AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER OR SPECIFIED ON PLANS.
- 6. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
- 7. ALL DISTURBED AREAS SHALL BE PROTECTED FROM EROSION EITHER BY MULCH OR TEMPORARY SEEDING WITHIN 2 WEEKS OF DISTURBANCE.
- 8. ALL SITE GRADING MUST BE PERFORMED TO INSURE POSITIVE DRAINAGE ACROSS THE ENTIRE SITE, THROUGHOUT THE PERIOD OF CONSTRUCTION AND AFTER PROJECT COMPLETION.
- 9. ALL SEDIMENTATION AND SOIL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF SITE GRADING AND MUST CONFORM TO PART 91 OF ACT 451 OF THE PUBLIC ACTS OF 1994 AS AMENDED. ALL APPLICABLE PERMITS SHALL BE OBTAINED BEFORE IMPLEMENTING THESE MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION AND SOIL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION.
- 10. IN GENERAL, EARTHWORK AND PAVEMENT CONSTRUCTION SHOULD BE PERFORMED IN ACCORDANCE WITHE THE LATEST MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED.
- 11. REMOVE ANY EXISTING TOPSOIL, ORGANIC SOILS, UNSUITABLE FILL, VEGETATION, TREES AN OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL, TREE ROOTS SHOULD BE COMPLETELY REMOVED.
- 12. EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
- 13. ON SITE FILL MATERIAL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON SITE MATERIAL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- 14. THE FINAL SUBGRADE SHOULD BE THOROUGHLY PROOFROLLED USING A LOADED TANDEM AXLE TRUCK UNDER THE OBSERVATION OF GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- 15. THE AGGREGATE BASE SHOULD BE COMPACTED TO ACHIEVE A MINIMUM OF 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY. THE BASE AND SUBGRADE COMPACTION SHOULD EXTEND A MINIMUM OF 12 INCHES BEYOND THE PAVED EDGE OR BACK OF CURB.

REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



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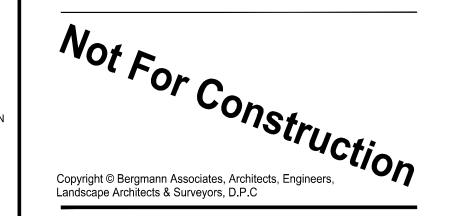
PROPOSED MAJOR CONTOUR

TC=78.01 **×** BC=77.51 XTW/BW=152.50 **×** 77.73 ×EG=77.73 **X** HP=77.73 **X** TG=77.73 **×** FF=77 73 2.5%

PROPOSED MINOR CONTOUR PROPOSED TOP OF CURB / BOTTOM OF CURB ELEVATION PROPOSED TOP OF WALL / BOTTOM OF WALL PROPOSED SPOT ELEVATION EXISTING ELEVATION PROPOSED HIGH POINT ELEVATION PROPOSED TOP OF GRATE ELEVATION FINISHED FLOOR ELEVATION

PROPOSED SLOPE EXISTING CONTOUR — — — RIDGE LINE

1" = 70' SCALE BAR



Project Manager: I. GRAHAM, PE Designed By I. GRAHAM, PE Date Issued: JANUARY 14, 2021

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Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number 14648.00

PRELIMINARY GRADING PLAN







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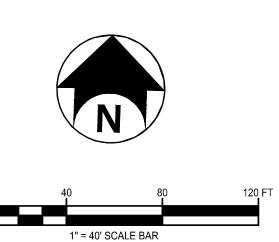
DESCRIPTION

GRADING LEGEND:

75 _____76____ **X** TC=78.01 BC=77.51 **×** 77.73 **×** EG=77.73 **×** HP=77.73 **X** TG=77.73 **×** FF=77.73 2.5%

PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED TOP OF CURB / BOTTOM OF CURB ELEVATION ★TW/BW=152.50 PROPOSED TOP OF WALL / BOTTOM OF WALL PROPOSED SPOT ELEVATION EXISTING ELEVATION PROPOSED HIGH POINT ELEVATION PROPOSED TOP OF GRATE ELEVATION FINISHED FLOOR ELEVATION PROPOSED SLOPE

EXISTING CONTOUR — — — RIDGE LINE



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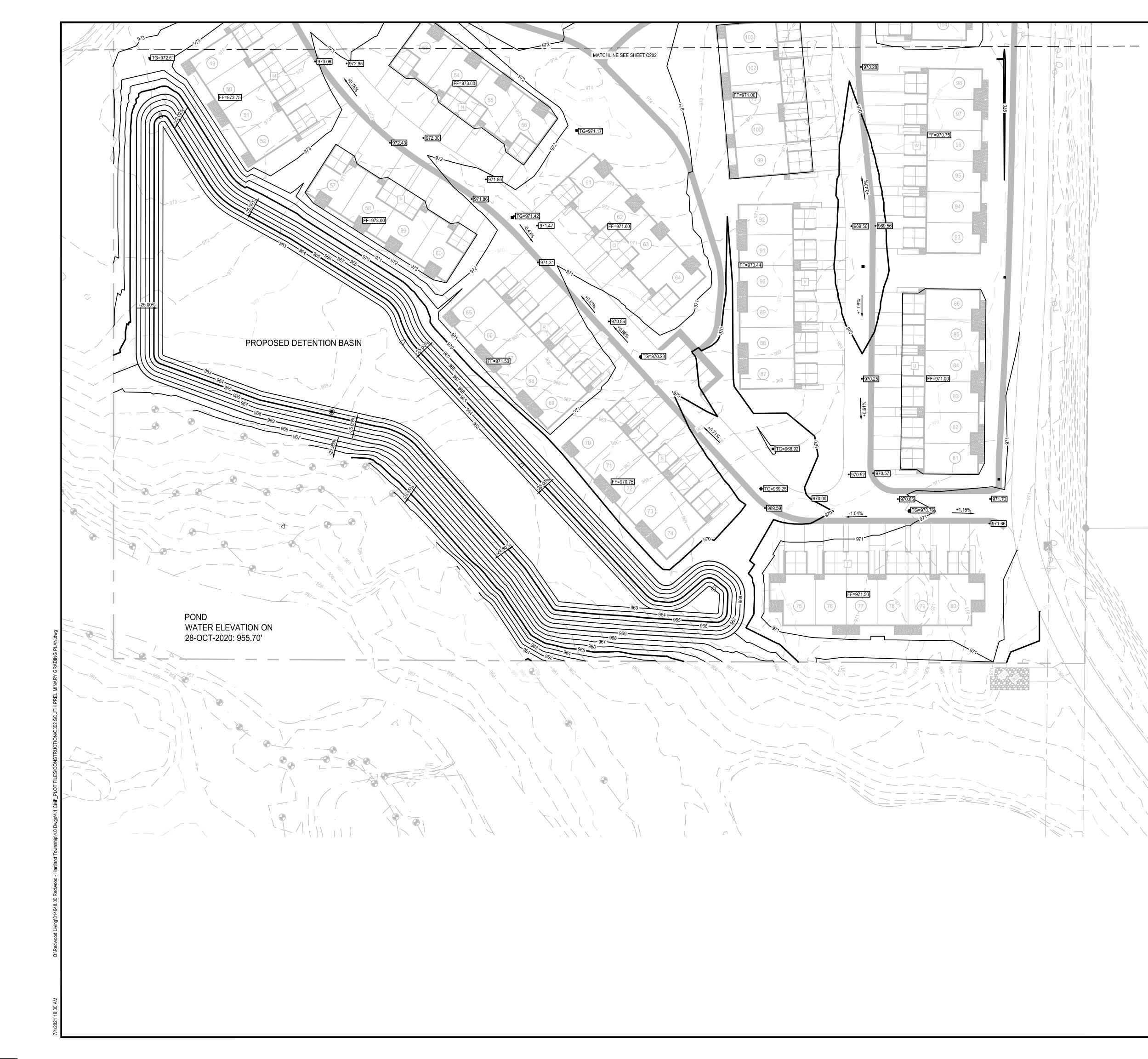
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C301



REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



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DESCRIPTION

GRADING LEGEND:

x ^{TC=78.01}_{BC=77.51} **×** 77.73 **×** EG=77.73 **×** HP=77.73 **X** TG=77.73 **×** FF=77.73 2.5%

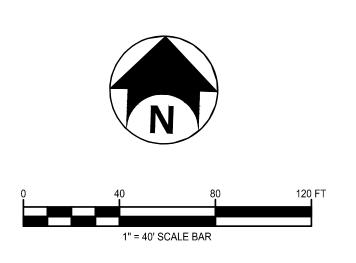
PROPOSED MINOR CONTOUR PROPOSED TOP OF CURB / BOTTOM OF CURB ELEVATION ★TW/BW=152.50 PROPOSED TOP OF WALL / BOTTOM OF WALL PROPOSED SPOT ELEVATION EXISTING ELEVATION PROPOSED HIGH POINT ELEVATION PROPOSED TOP OF GRATE ELEVATION

PROPOSED MAJOR CONTOUR

FINISHED FLOOR ELEVATION

PROPOSED SLOPE — –72– — EXISTING CONTOUR

— — — RIDGE LINE



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Project Manager: I. GRAHAM, PE Designed By: I. GRAHAM, PE Date Issued: JANUARY 14, 2021

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UTILITY NOTES:

- ALL WORKMANSHIP, MATERIALS, AND CONSTRUCTION PRACTICES SHALL CONFORM TO THE REQUIREMENTS OF HARTLAND TOWNSHIP OR THE AGENCY HAVING JURISDICTION OVER THE APPLICABLE UTILITY.
- 2. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 3. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- 4. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- 5. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS THE CONFLICT IS DISCOVERED.
- 6. TOPS OF EXISTING UTILITY STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
- 7. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- 8. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE CONSTRUCTION REQUIREMENTS OF THE UTILITY OWNERS.
- 9. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- 10. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- 11. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION AND ELEVATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL. AS COORDINATING WITH UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING FOR TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
- 12. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNER'S INSPECTING AUTHORITIES.
- 13. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
- 14. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPE SIZES AND INVERTS ELEVATIONS BEFORE ORDERING MANHOLE AND CATCH BASIN STRUCTURES.
- 15. ALL UTILITIES BELOW PAVED AREAS SHALL BE BACKFILLED WITH 100% GRANULAR MATERIAL (OR APPROVED OTHER) AND COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT.
- 16. ALL RIM ELEVATIONS IN OUTLAWN AREAS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED BY THE CONTRACTOR AFTER FINAL GRADES ARE ESTABLISHED.

UTILITY LEGEND:

RIPRAP STORM SEWER YARD BASIN CATCH BASIN STORM MANHOLE HYDRANT VALVE/CURB BOX PIV. WATER MAIN SANITARY SEWER SANITARY SEWER MANHOLE CLEANOUT ELECTRIC UTILITY CROSSING SANITARY FORCEMAIN

REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



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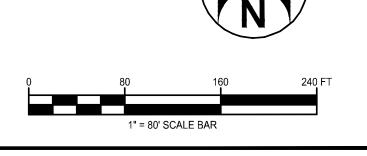
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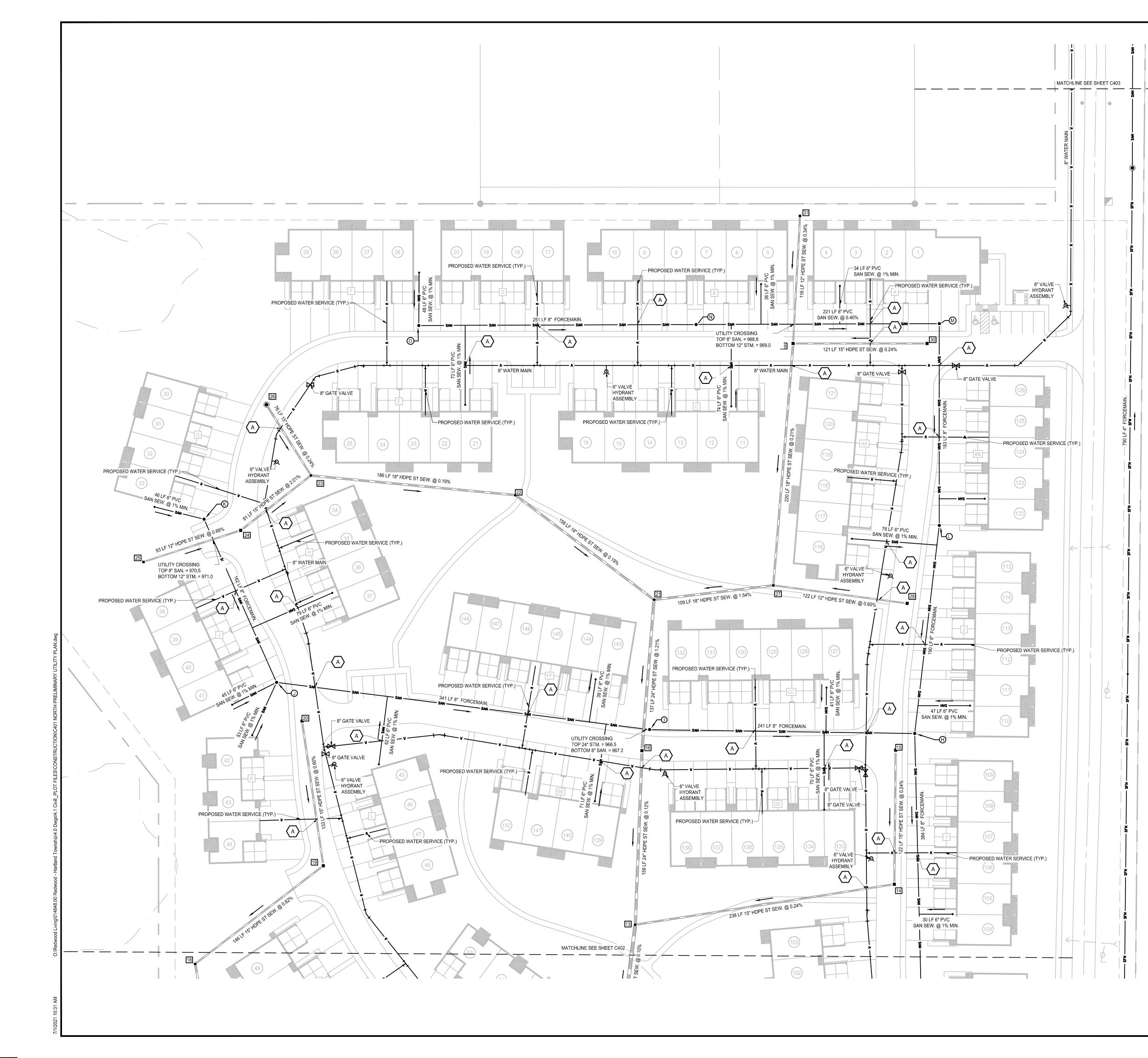
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PRELIMINARY UTILITY PLAN



C400



UTILITY LEGEND:

	RIPRAP
	STORM SEWER
	YARD BASIN
	CATCH BASIN
۲	STORM MANHOLE
A	HYDRANT
\bowtie	VALVE/CURB BOX
•	P.I.V.
v	WATER MAIN
SAN	SANITARY SEWER
۲	SANITARY SEWER MANHOLE
•	CLEANOUT
UGE	ELECTRIC
G	GAS
\bigcirc	UTILITY CROSSING
SFM	SANITARY FORCEMAIN

KEY NOTES:

A. MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWER.

SANITAR	SANITARY STRUCTURE TABLE		
STRUCTURE NAME:	STRUCTURE INFORMATION:		
н	RIM = 971.48 INV IN = 966.45 W 8" INV IN = 965.70 N 8" INV OUT = 965.60 S 8"		
I	RIM = 972.66 INV IN = 967.52 W 8" INV OUT = 967.42 E 8"		
J	RIM = 975.01 INV IN = 968.97 NW 8" INV IN = 970.80 SW 6" INV IN = 969.93 SW 6" INV OUT = 968.87 E 8"		
К	RIM = 974.43 INV IN = 969.79 W 6" INV OUT = 969.62 SE 8"		
L	RIM = 972.57 INV IN = 966.56 N 8" INV OUT = 966.46 S 8"		
М	RIM = 972.70 INV IN = 967.40 W 8" INV OUT = 967.30 S 8"		
Ν	RIM = 974.86 INV IN = 968.39 W 8" INV OUT = 968.29 E 8"		
0	RIM = 974.31 INV IN = 969.74 N 6" INV OUT = 969.39 E 8"		
Ρ	RIM = 972.16 INV IN = 969.52 S 4" INV OUT = 969.36 N 8"		

STORM STRUCTURE TABLE		
STRUCTURE NAME:	STRUCTURE INFORMATION:	
13	RIM = 971.83 INV IN = 963.85 N 24" INV IN = 965.64 E 15" INV OUT = 963.35 S 30"	
14	RIM = 970.46 INV IN = 966.21 N 15" INV OUT = 966.21 W 15"	
15	RIM = 971.07 INV OUT = 966.50 S 15"	
16	RIM = 972.43 INV IN = 964.04 N 24" INV OUT = 964.04 S 24"	
19	RIM = 973.46 INV IN = 969.20 N 15" INV OUT = 969.20 SW 15"	
20	RIM = 974.32 INV OUT = 970.00 S 15"	
21	RIM = 972.71 INV IN = 966.20 E 18" INV IN = 966.20 NW 18" INV OUT = 965.70 S 24"	
22	RIM = 974.18 INV IN = 968.10 W 18" INV OUT = 966.50 SE 18"	
23	RIM = 974.10 INV IN = 968.70 NW 15" INV IN = 968.70 SW 15" INV OUT = 968.45 E 18"	
24	RIM = 973.97 INV IN = 971.33 W 12" INV OUT = 970.32 NE 15"	
25	RIM = 974.08 INV OUT = 972.14 E 12"	
26	RIM = 972.80 INV OUT = 968.88 SE 15"	
27	RIM = 972.05 INV IN = 967.88 N 18" INV IN = 968.20 E 12" INV OUT = 967.88 W 18"	
28	RIM = 971.74 INV OUT = 968.93 W 12"	
29	RIM = 973.48 INV IN = 967.50 E 15" INV IN = 969.35 N 12" INV OUT = 968.35 S 18"	
30	RIM = 972.04 INV OUT = 967.79 W 15"	
31	RIM = 972.12 INV OUT = 969.74 S 12"	



1" = 40' SCALE BAR

REDWOOD HARTLAND TOWNSHIP

HIGHLAND ROAD (M-59) HARTLAND, MI 48353



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NORTH PRELIMINARY UTILITY PLAN





UTILITY LEGEND:

	RIPRAP
	STORM SEWER
	YARD BASIN
	CATCH BASIN
۲	STORM MANHOLE
A	HYDRANT
\bowtie	VALVE/CURB BOX
•	P.I.V.
v	WATER MAIN
SAN	SANITARY SEWER
۲	SANITARY SEWER MANHOLE
•	CLEANOUT
UGE	ELECTRIC
G	GAS
\mathcal{O}	UTILITY CROSSING
SFM	SANITARY FORCEMAIN

KEY NOTES:

A. MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWER.

SANITARY STRUCTURE TABLE		
STRUCTURE NAME:	STRUCTURE INFO:	
A	RIM = 970.25 INV IN = 961.82 N 8" INV OUT = 961.72 E 8"	
В	RIM = 971.50 INV IN = 962.46 W 8" INV OUT = 962.36 S 8"	
С	RIM = 970.76 INV IN = 965.18 W 8" INV IN = 962.99 N 8" INV OUT = 962.89 E 8"	
D	RIM = 969.69 INV IN = 965.69 NW 8" INV OUT = 965.59 E 8"	
E	RIM = 971.47 INV IN = 967.65 NW 8" INV OUT = 967.05 SE 8"	
F	RIM = 972.72 INV IN = 968.75 SW 6" INV OUT = 968.40 SE 8"	
G	RIM = 969.68 INV IN = 964.08 N 8" INV OUT = 963.98 S 8"	
LS	RIM = 969.00 INV IN = 961.65 W 8" INV OUT = 961.84 NE 4"	

STORM ST	STORM STRUCTURE TABLE		
STRUCTURE NAME:	STRUCTURE INFO:		
Structure - (193)	RIM = ??? INV IN = 961.50 NE 12"		
0	RIM = 964.00 INV OUT = 962.00 SW 12"		
1	RIM = 963.78 INV IN = 963.00 NE 24"		
2	RIM = 969.23 INV IN = 964.12 N 12" INV IN = 963.62 E 18" INV OUT = 963.12 SW 24"		
3	RIM = 968.90 INV OUT = 964.25 S 12"		
4	RIM = 970.74 INV IN = 964.13 E 15" INV OUT = 963.88 W 18"		
5	RIM = 970.26 INV IN = 964.34 N 15" INV OUT = 964.34 W 15"		
6	RIM = 970.04 INV IN = 964.78 W 15" INV OUT = 964.78 S 15"		
7	RIM = 969.16 INV OUT = 965.09 E 15"		
8	RIM = 965.00 INV IN = 964.00 NE 15"		
9	RIM = 970.28 INV OUT = 964.36 SW 15"		
10	RIM = 964.01 INV IN = 963.00 NE 30"		
11	RIM = 971.38 INV IN = 963.15 NE 30" INV OUT = 963.15 SW 30"		
12	RIM = 971.17 INV IN = 963.25 N 30" INV OUT = 963.25 SW 30"		
17	RIM = 965.59 INV IN = 965.13 N 18"		
18	RIM = 972.57 INV IN = 968.00 NE 15" INV OUT = 967.75 S 18"		



0	40	80	120 FT
	1" = 40' SC	CALE BAR	

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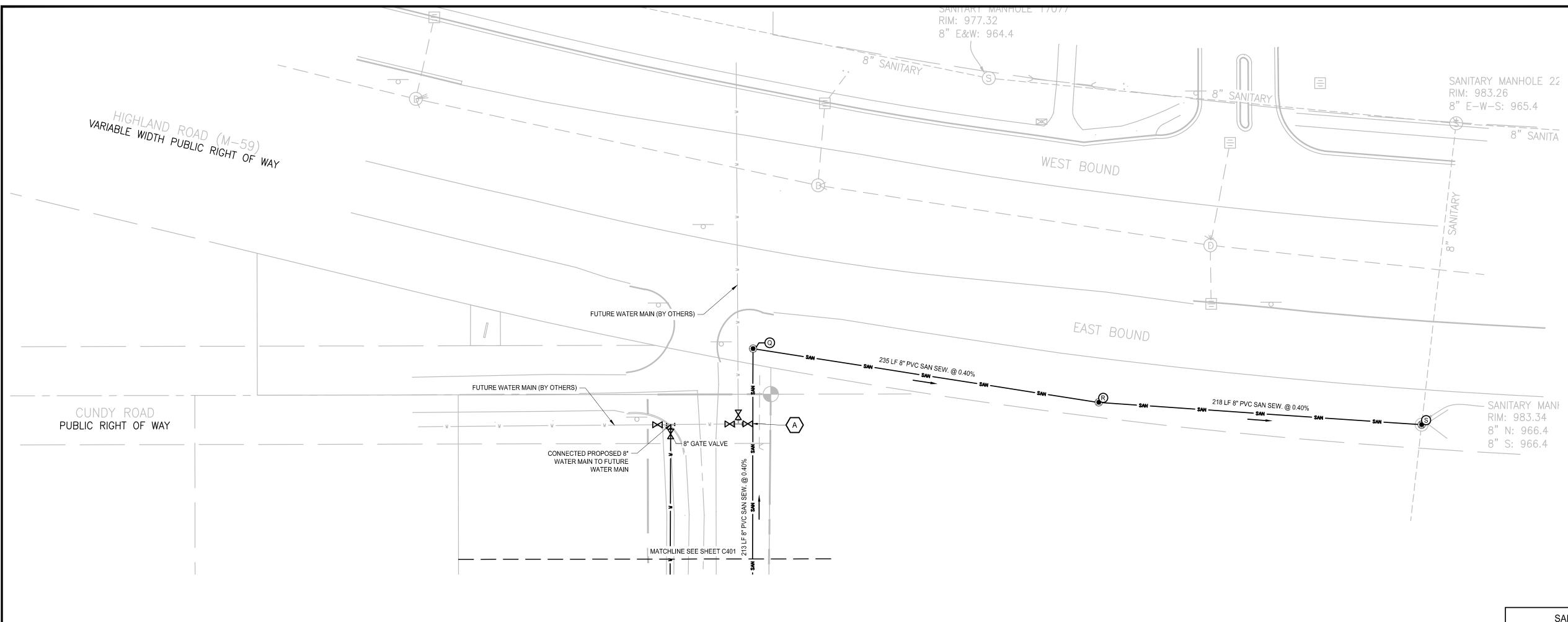
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UTI	LITY	LEGEND:

201020 25 25 4 50 25 4 50	RIPRAP
	STORM SEWER
	YARD BASIN
	CATCH BASIN
۲	STORM MANHOLE
A	HYDRANT
\bowtie	VALVE/CURB BOX
•	P.I.V.
v	WATER MAIN
SAN	SANITARY SEWER
۲	SANITARY SEWER MANHOLE
•	CLEANOUT
UGE	ELECTRIC
G	GAS
\bigcirc	UTILITY CROSSING
SFи	SANITARY FORCEMAIN

KEY NOTES:

A. MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWER.

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SANITA	RY STRUCTUR	E TABLE
STRUCTURE NAME:	RIM ELEVATION:	PIPES:
Q	RIM = ??? INV IN = 968.51 INV OUT = 968.41	8" PVC INV IN =968.51 S 8" PVC INV OUT =968.41 E
R	RIM = ??? INV IN = 967.47 INV OUT = 967.37	8" PVC INV IN =967.47 W 8" PVC INV OUT =967.37 E
S	RIM = 983.34 INV IN = 966.50	8" PVC INV IN =966.50 W



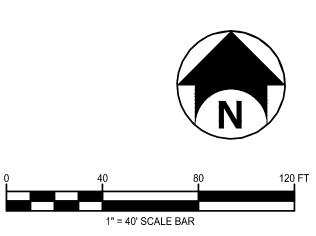
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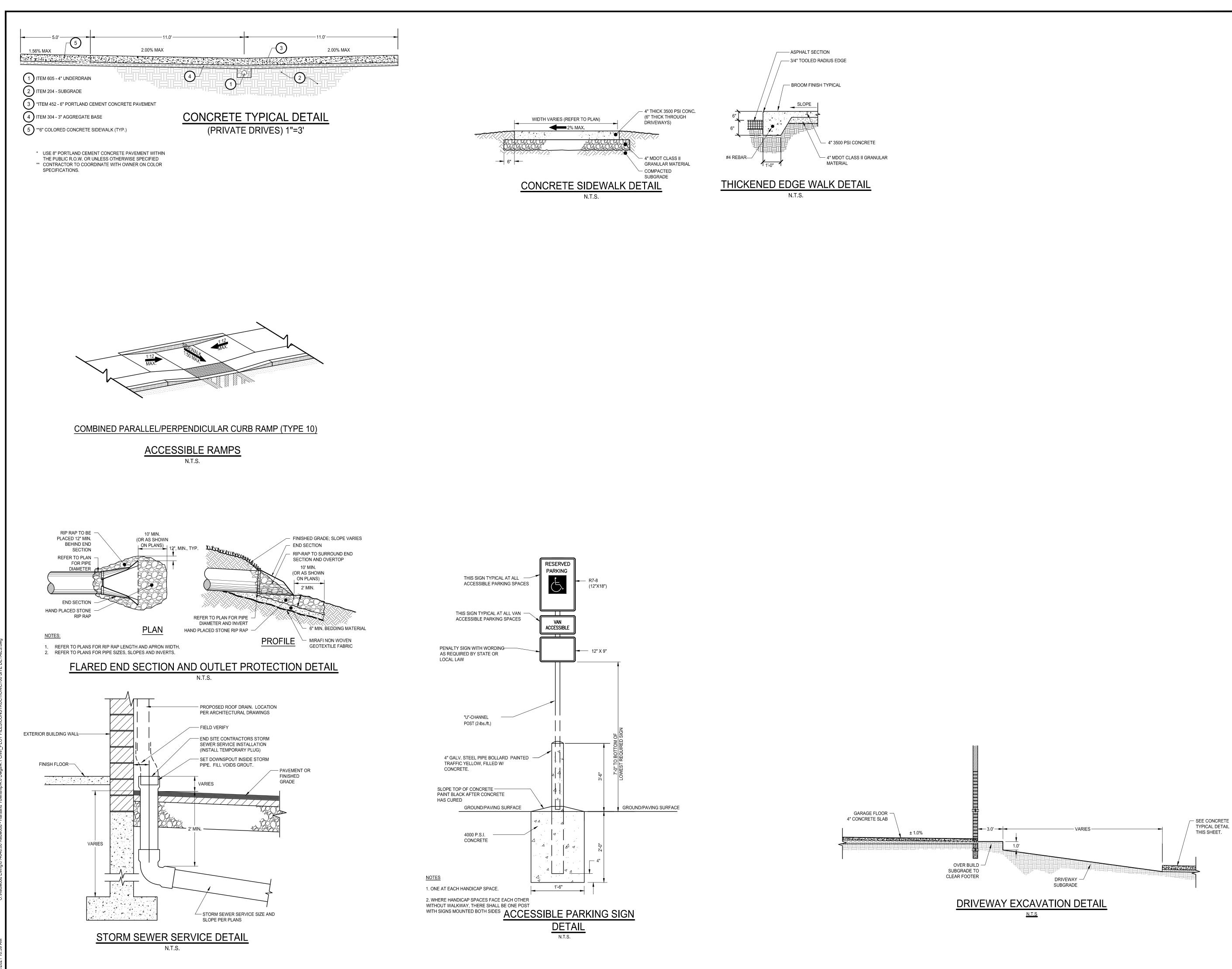
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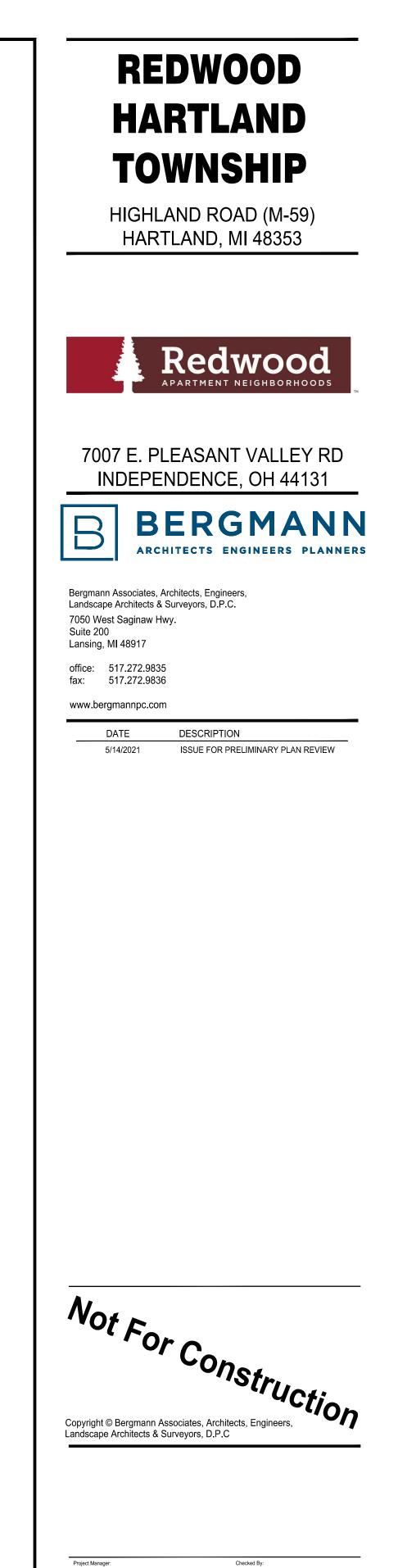
Checked By: I.GRAHAM, PE Drawn By: J.ARSENEAULT Project Number: 14648.00













I.GRAHAM, PE

J.ARSENEAULT

Drawn By:

Project Number:

14648.00

SITE DETAILS

C700

Drawing Number:

I. GRAHAM, PE

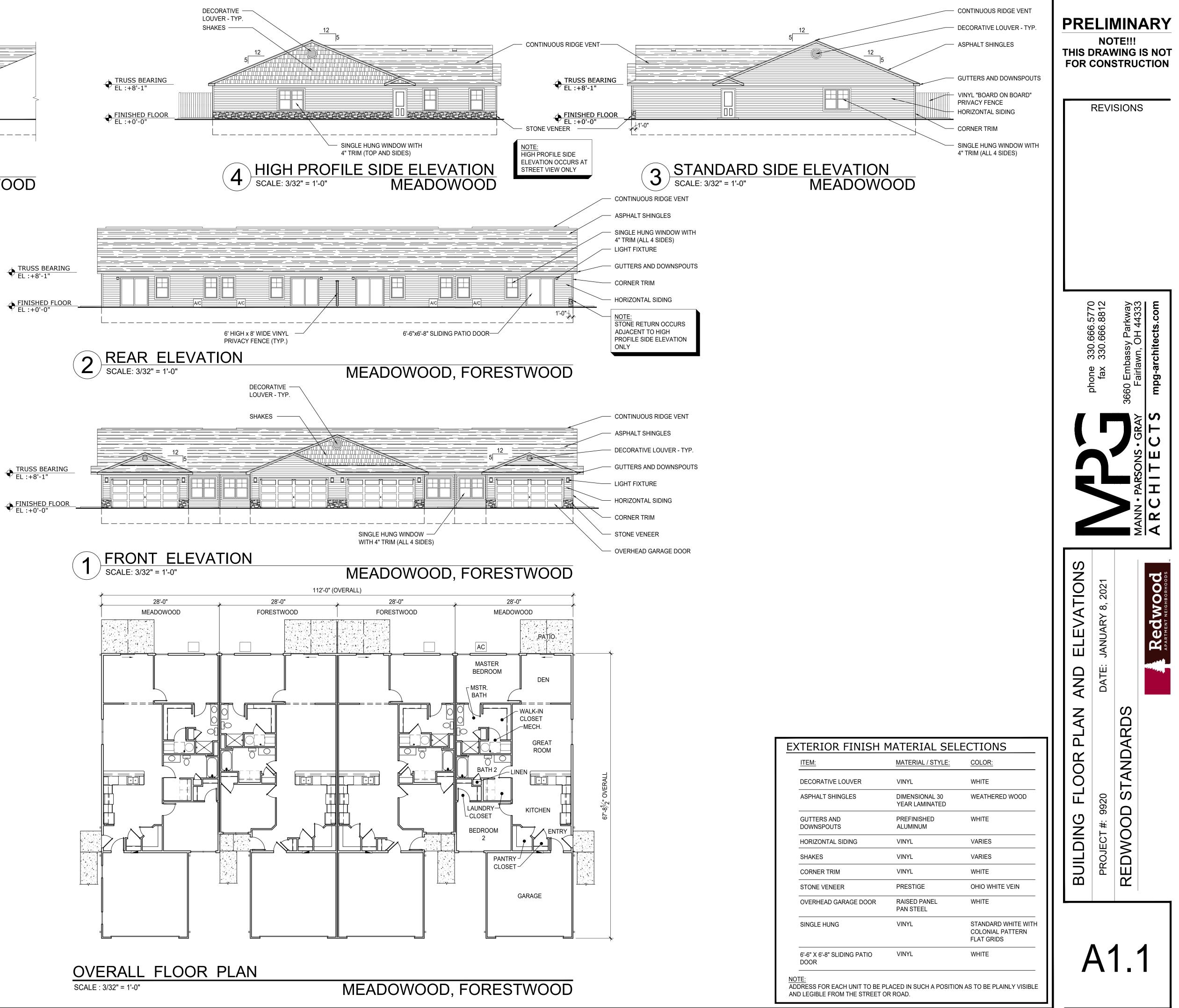
I. GRAHAM, PE

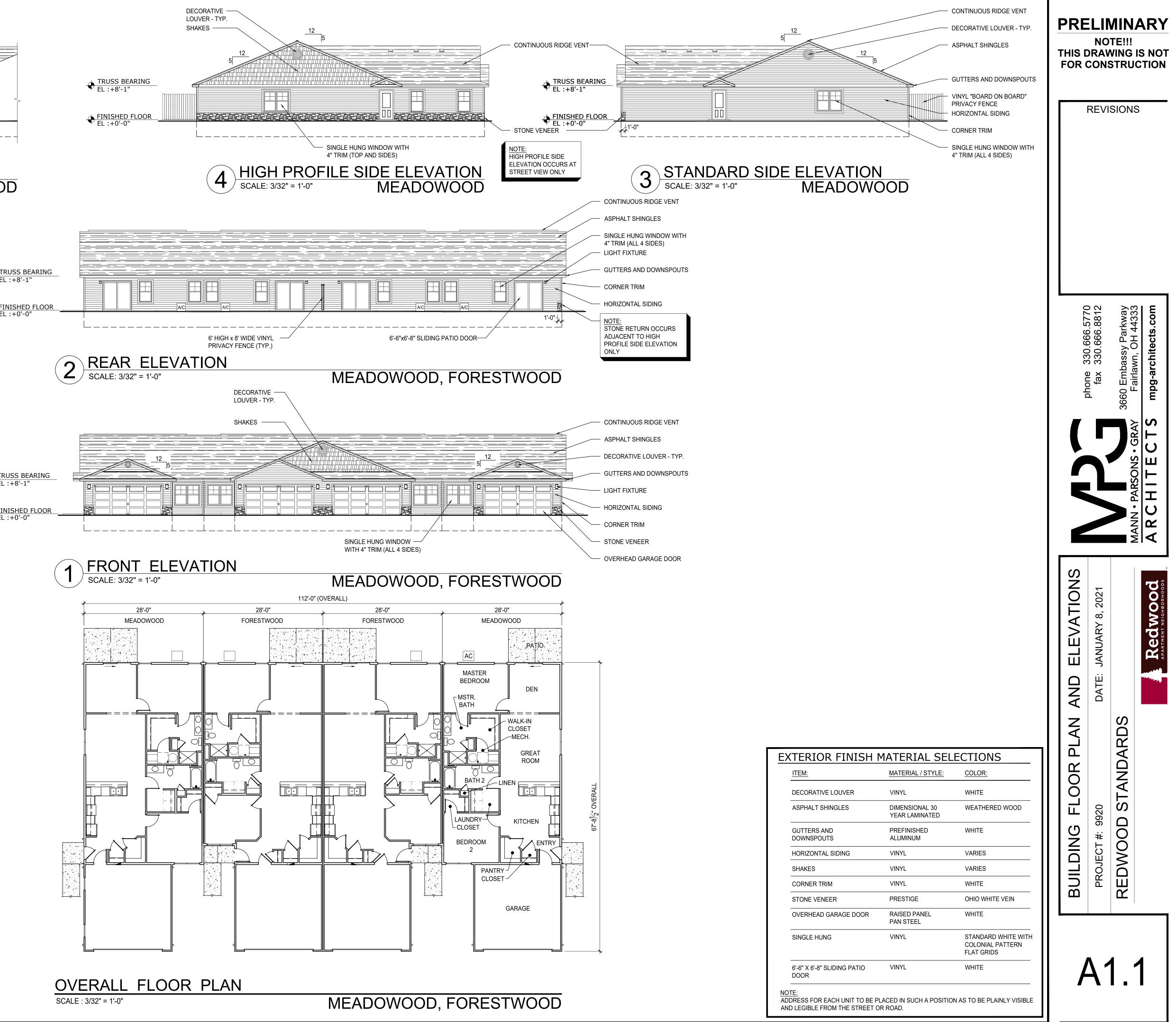
JANUARY 14, 2021

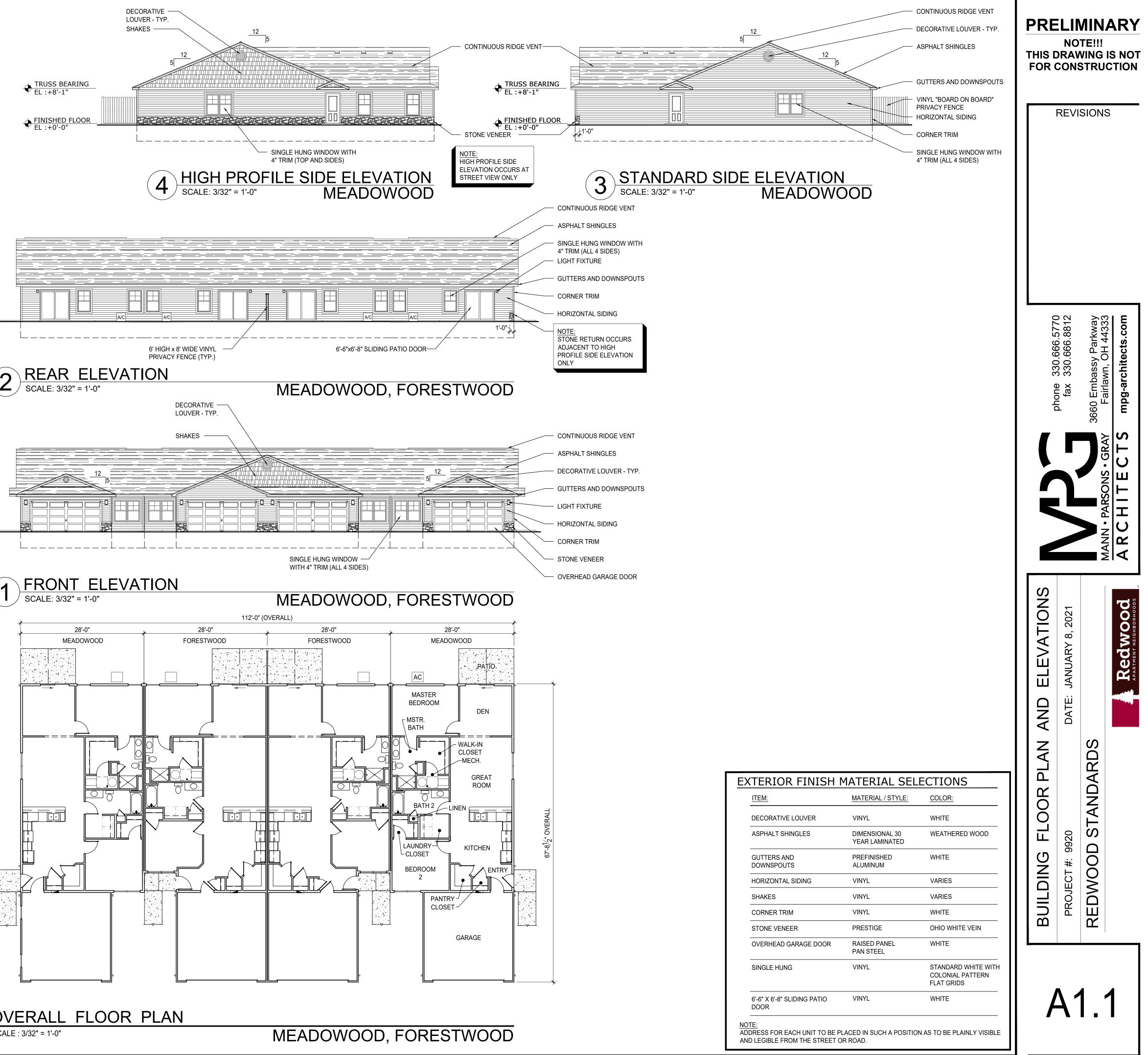
Designed By:

Date Issued:

VENT #750. COLOR: BROWN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS		
ASPHALT SHINGLES		
GUTTERS AND DOWNSPOUTS		
HORIZONTAL SIDING		♥ EL :+8'
CORNER TRIM		€ FINISH EL :+0
STONE VENEER	-0"	♥ EL :+0
REINFORCED CONCRETE		
5 PARTIAL SIDE	E ELEVATION	

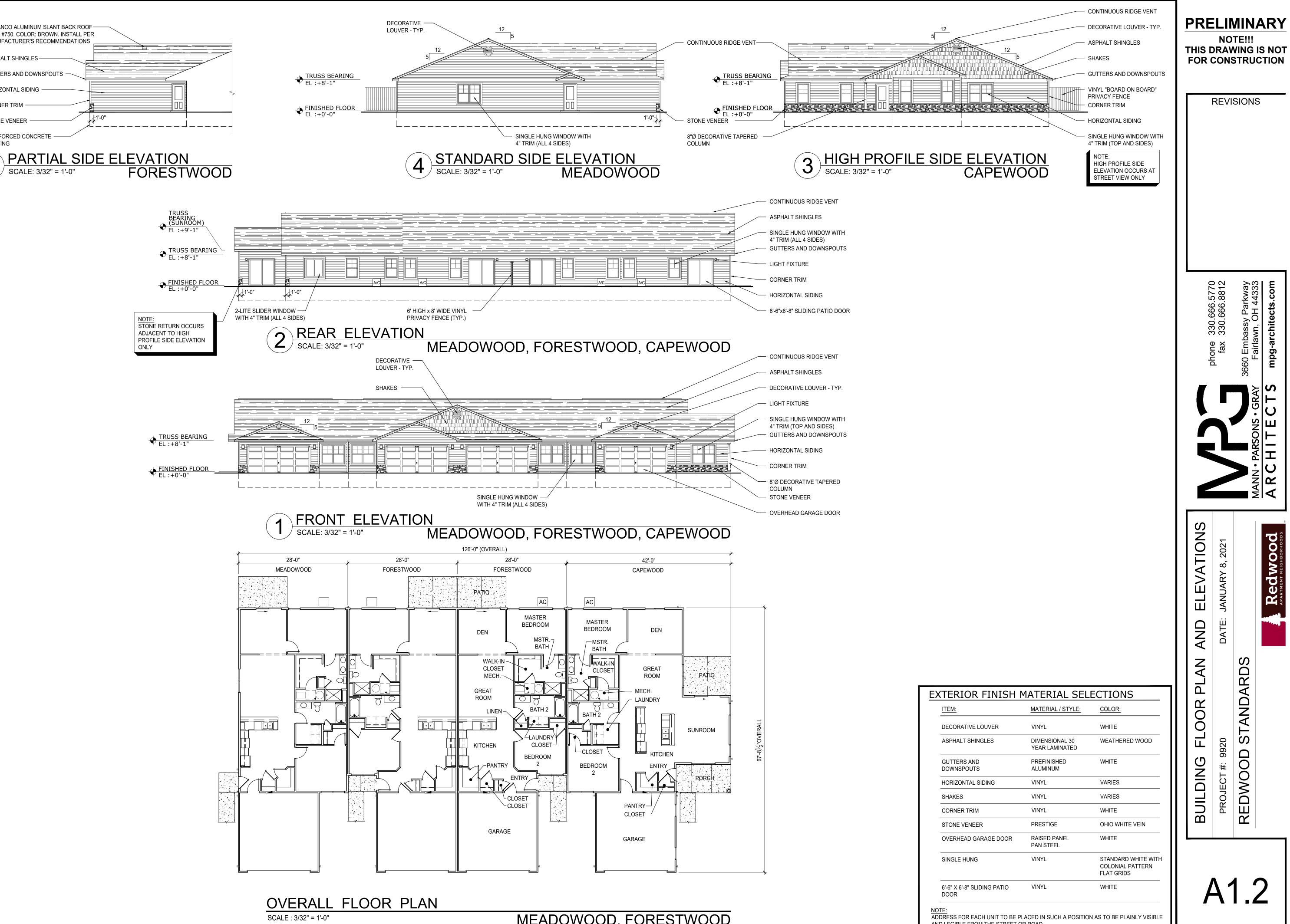


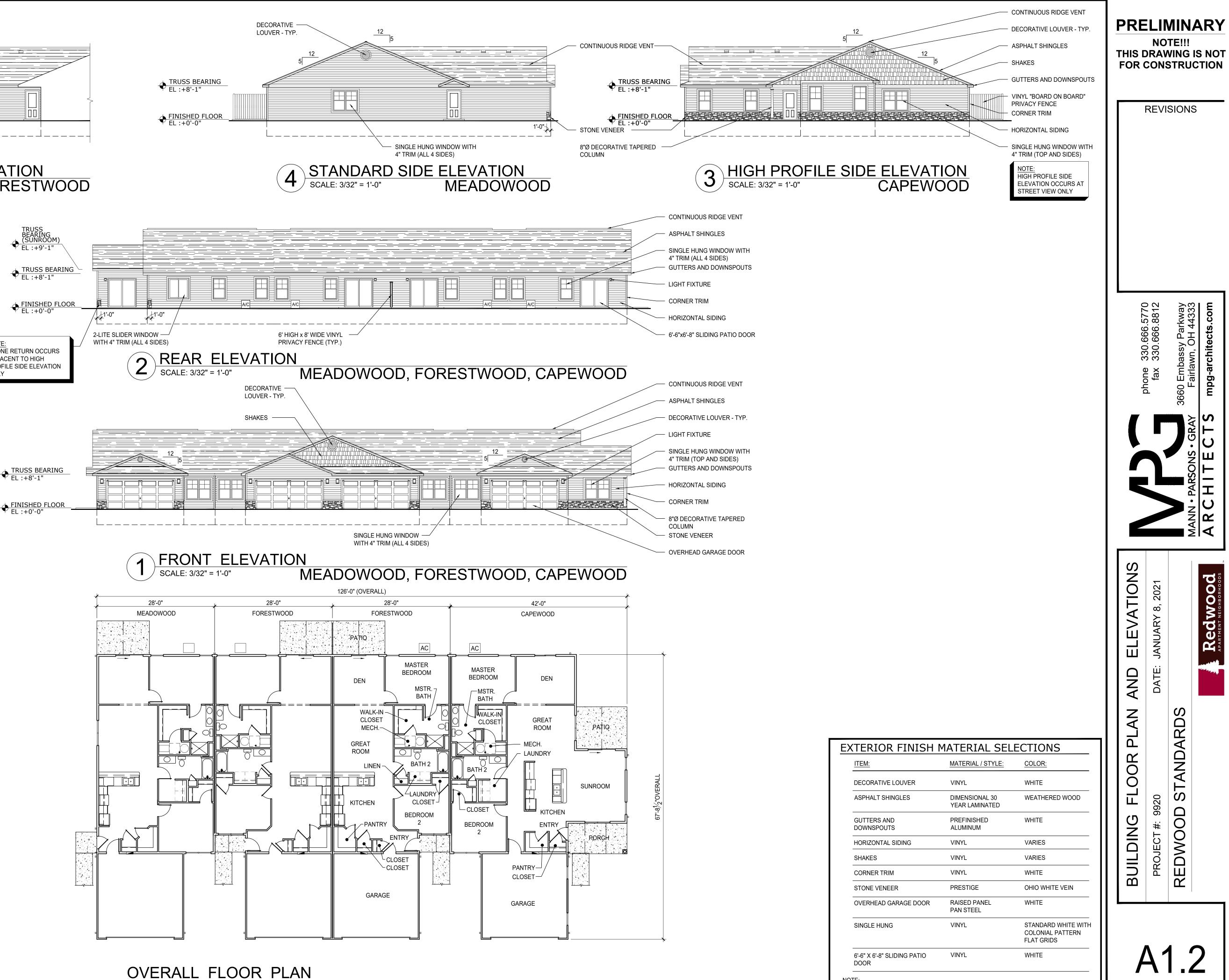


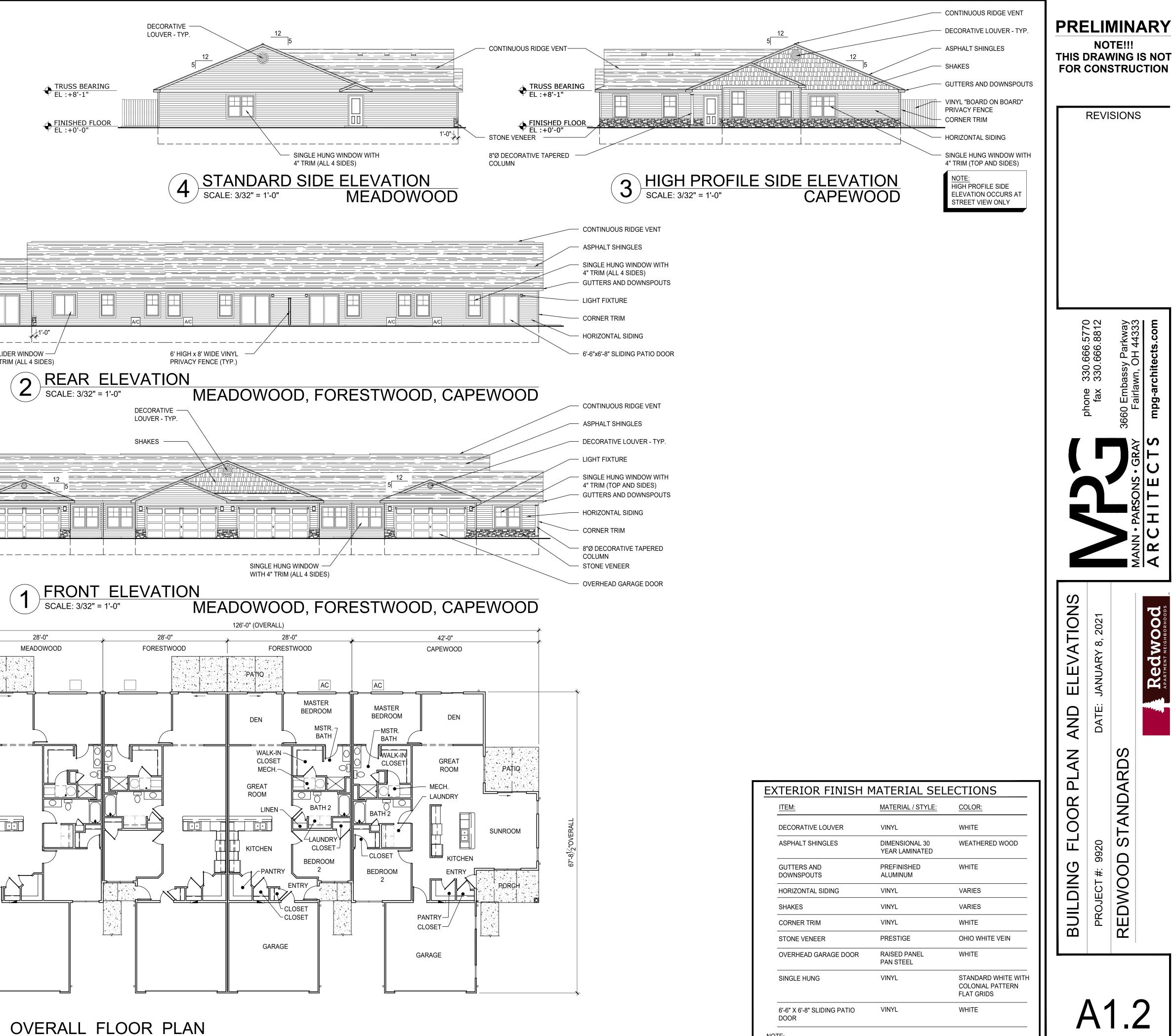




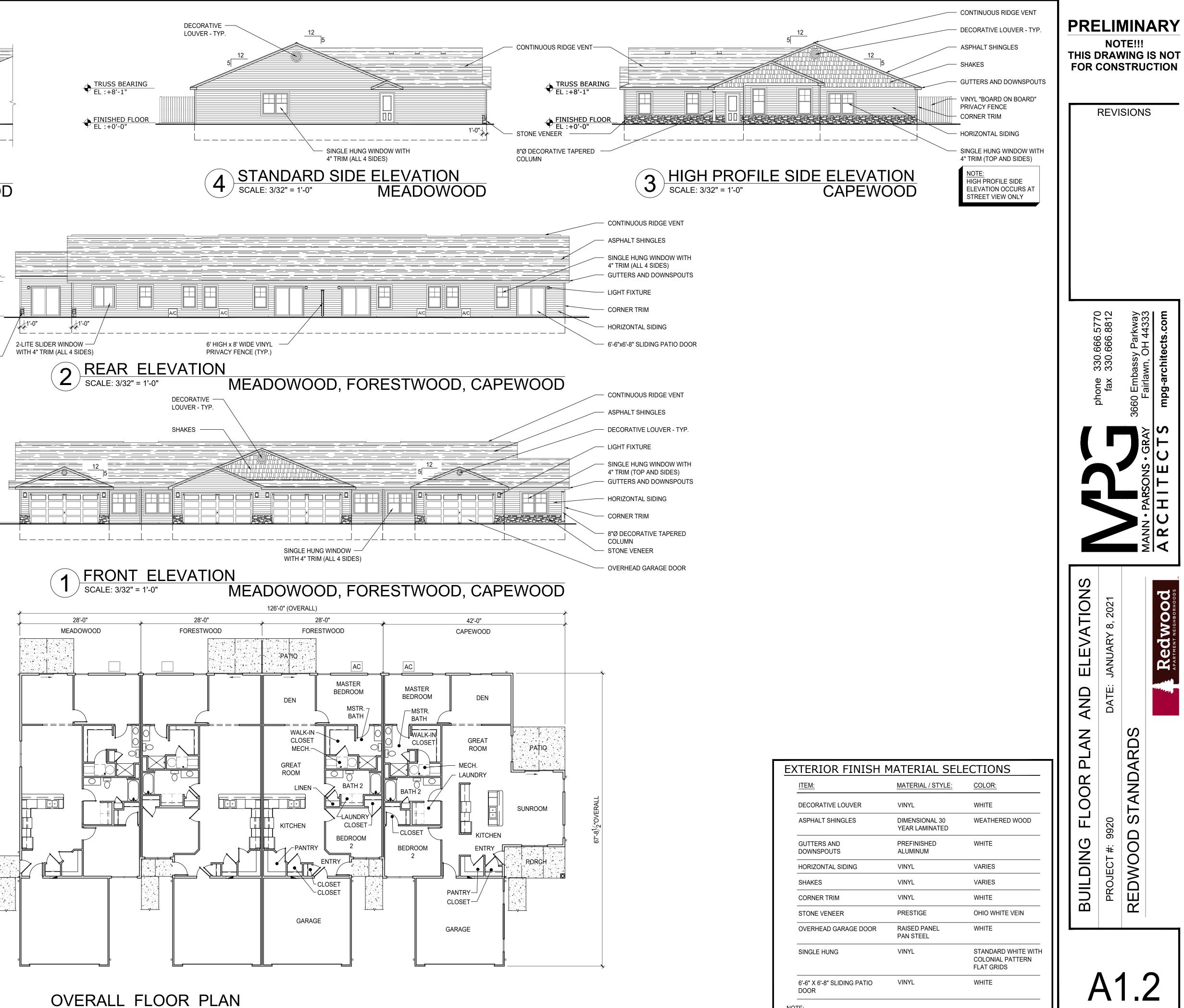
LOMANCO ALUMINUM SLANT BACK ROOF - VENT #750. COLOR: BROWN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS		
ASPHALT SHINGLES		
GUTTERS AND DOWNSPOUTS		TRUSS
HORIZONTAL SIDING		♥ EL :+8
CORNER TRIM		
STONE VENEER	<u>_</u> 1'-0"	♥ EL :+0
REINFORCED CONCRETE		
5 PARTIAL SID SCALE: 3/32" = 1'-0"	E ELEVATION FORESTWOOD	





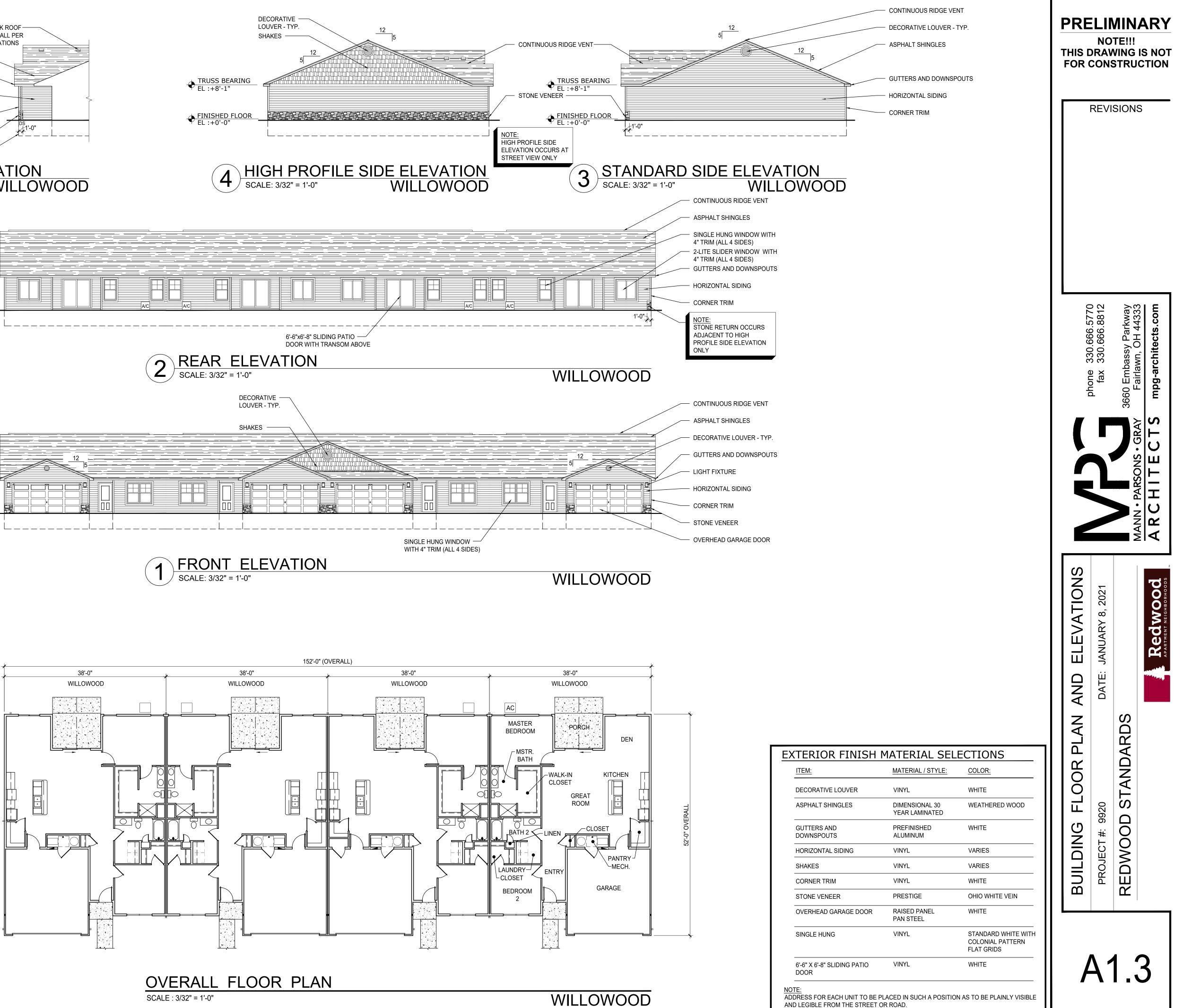


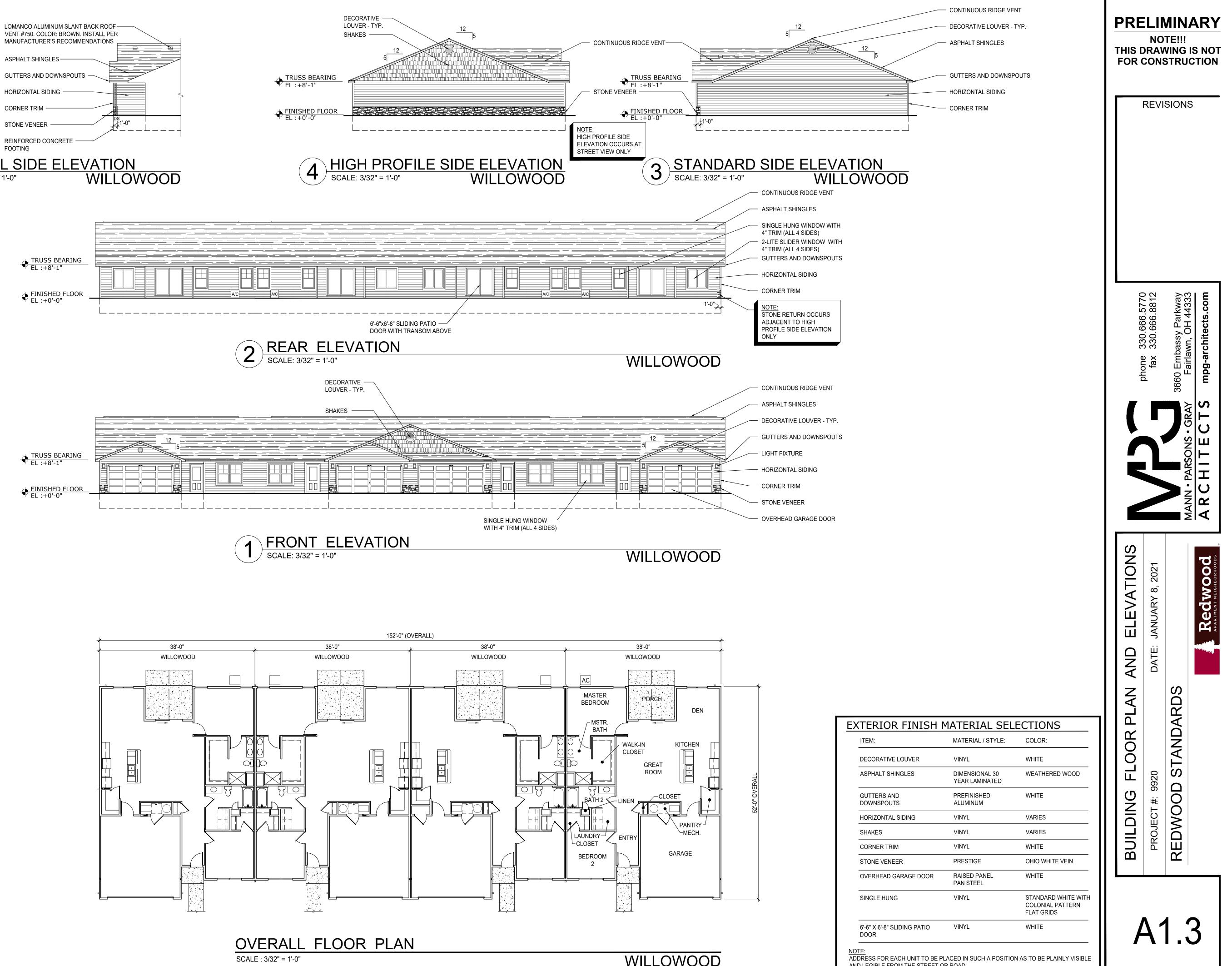
AND LEGIBLE FROM THE STREET OR ROAD.

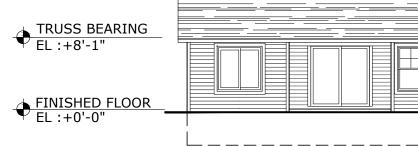


SCALE : 3/32" = 1'-0"

MEADOWOOD, FORESTWOOD



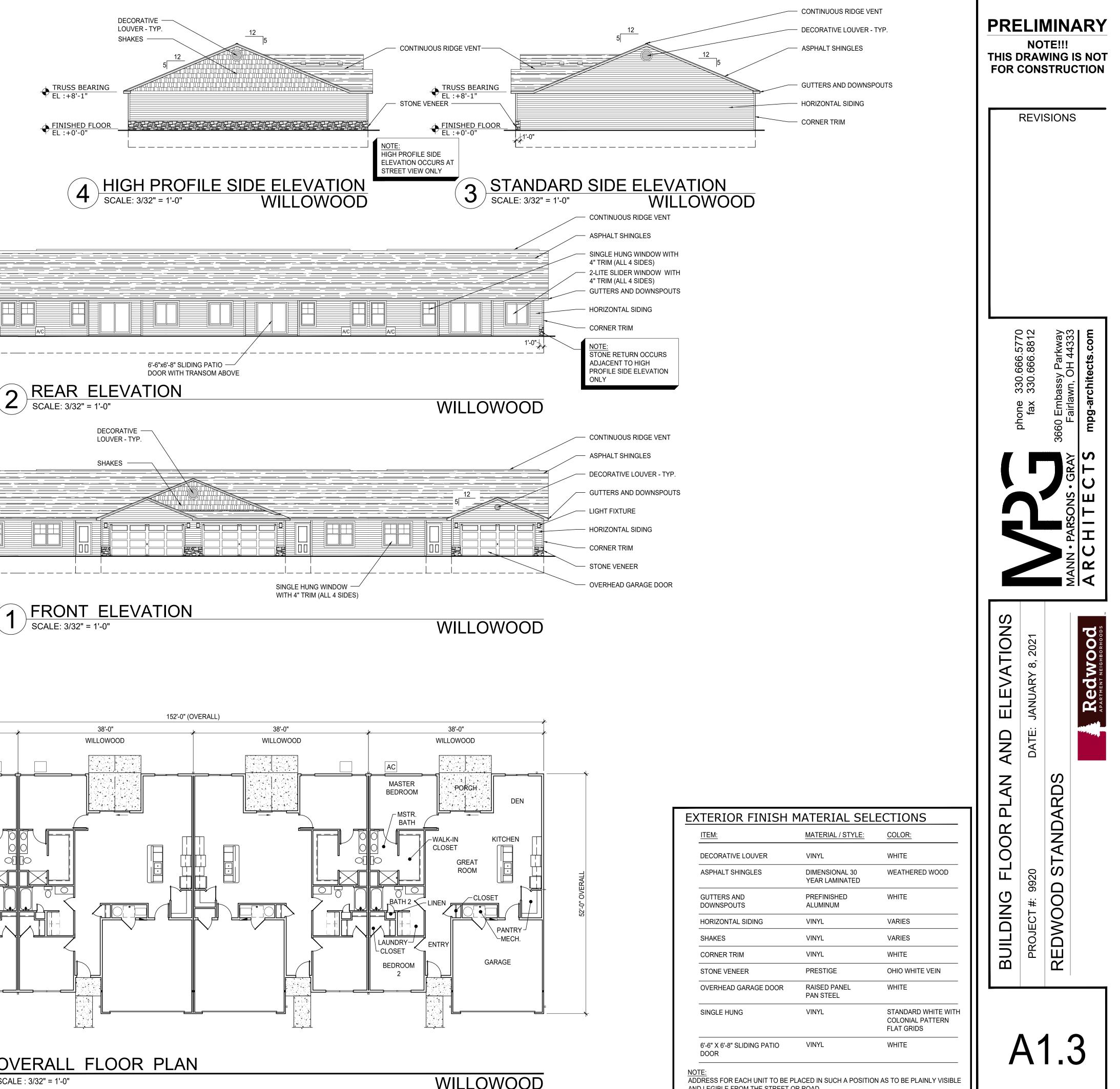


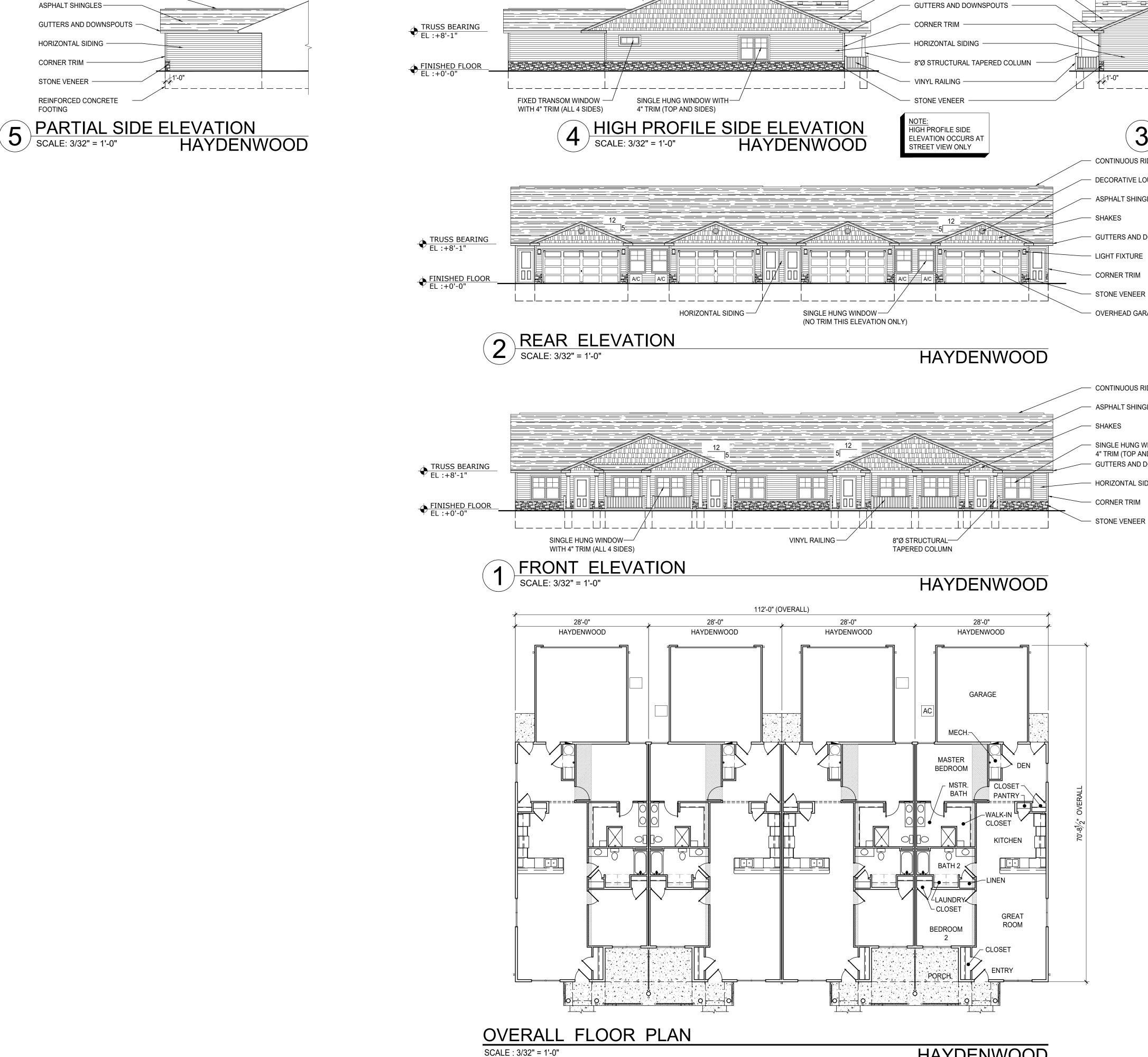


FOOTING PARTIAL SIDE ELEVATION 5 SCALE: 3/32" = 1'-0"

VENT #750. COLOR: BROWN. INSTALL PER
MANUFACTURER'S RECOMMENDATIONS
ASPHALT SHINGLES
GUTTERS AND DOWNSPOUTS -
HORIZONTAL SIDING
REINFORCED CONCRETE

WILLOWOOD





SHAKES -

CONTINUOUS RIDGE VENT -----



3 CONTINUOUS RIDGE VENT - DECORATIVE LOUVER - TYP. - ASPHALT SHINGLES - SHAKES GUTTERS AND DOWNSPOUTS - LIGHT FIXTURE - CORNER TRIM - STONE VENEER - OVERHEAD GARAGE DOOR

ASPHALT SHINGLES -

 \leq 1'-0"

CONTINUOUS RIDGE VENT

- ASPHALT SHINGLES

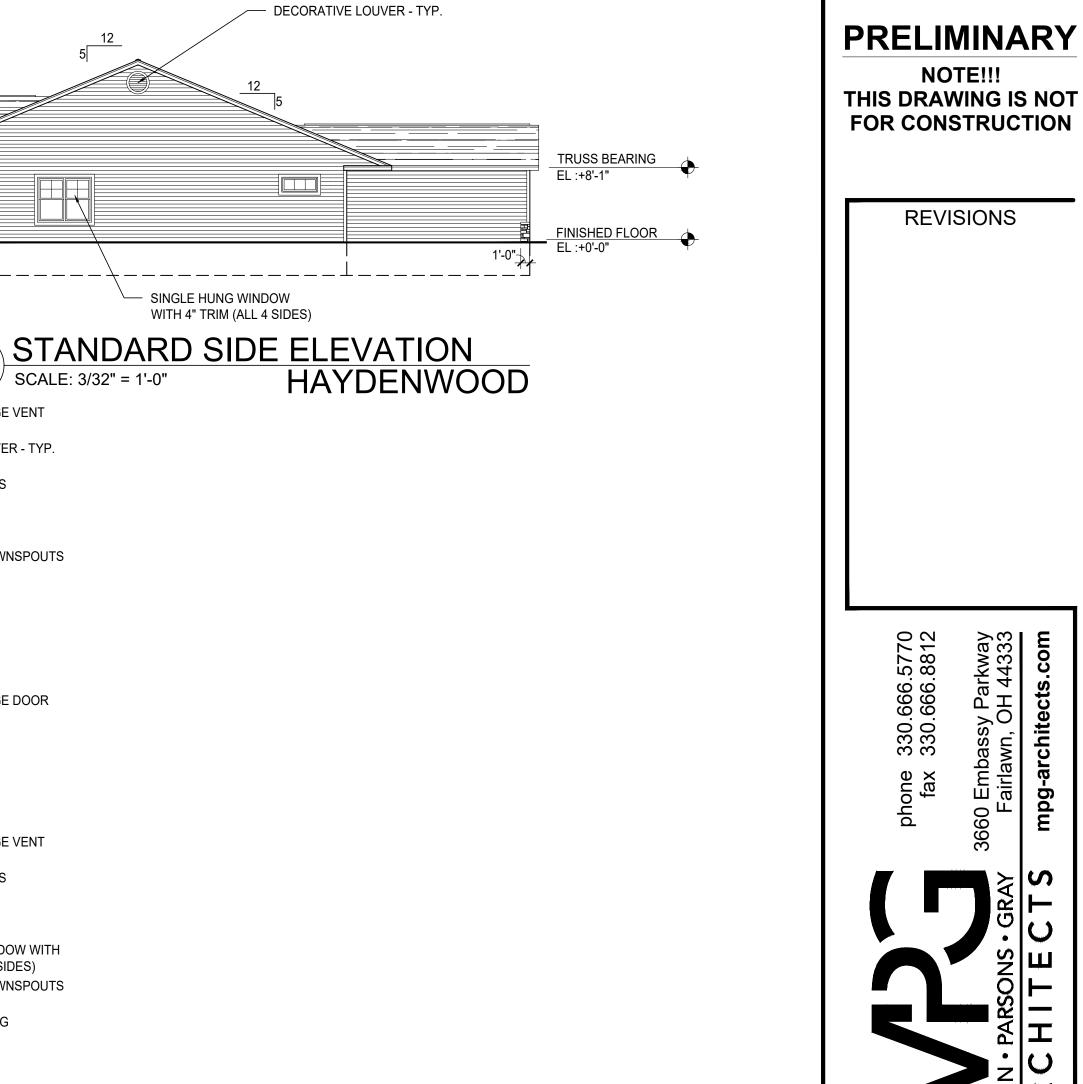
- SHAKES

SINGLE HUNG WINDOW WITH 4" TRIM (TOP AND SIDES)

GUTTERS AND DOWNSPOUTS

- HORIZONTAL SIDING

- CORNER TRIM



ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS

<u>NOTE:</u> ADDRESS FOR EACH UNIT TO BE PLACED IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD.

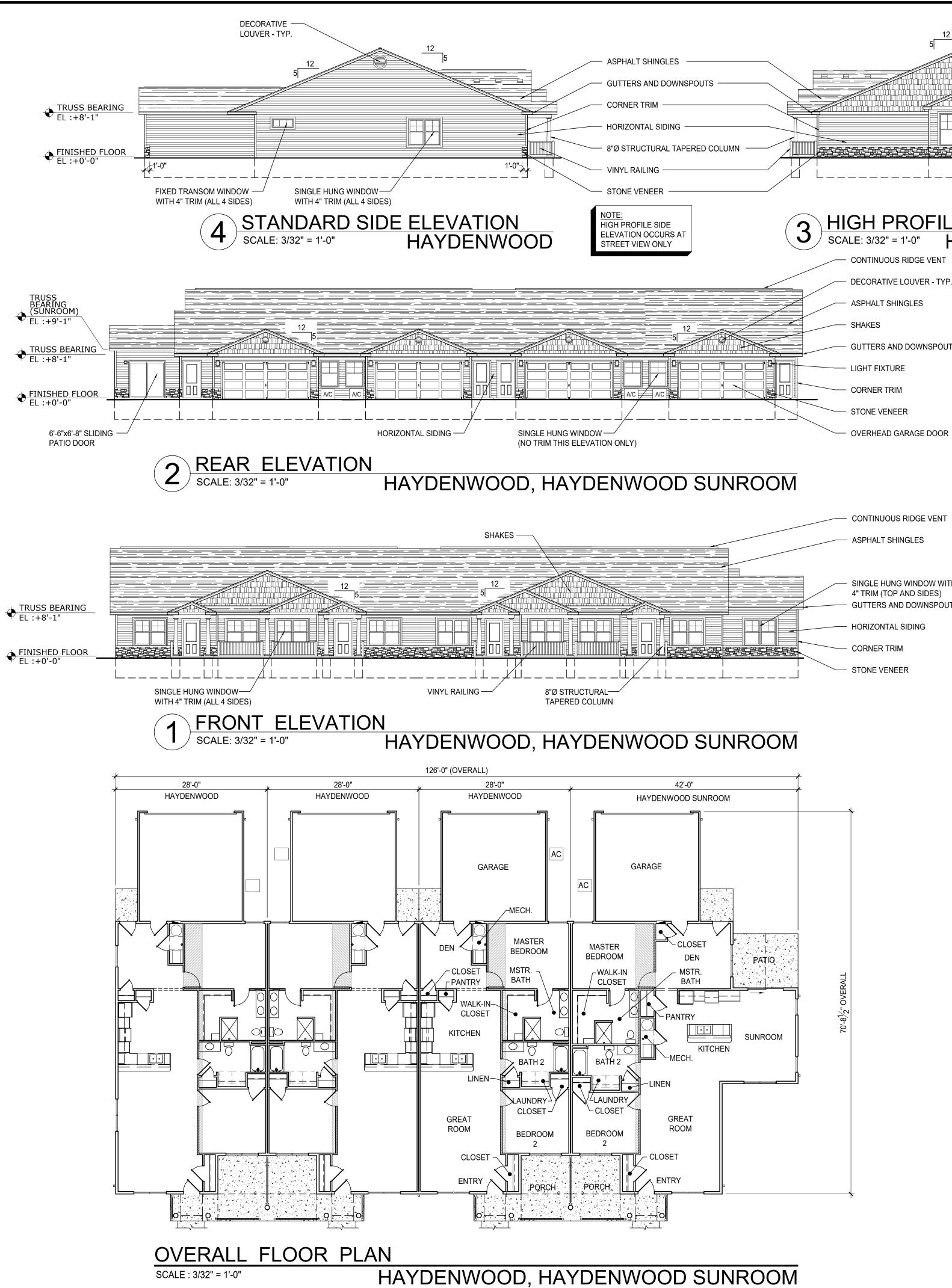
BUILDING FLOOR PI	BUILDING FLOOR PLAN AND ELEVATIONS		
PROJECT #: 9920	DATE: JANUARY 8, 2021		fax 330.666.8812
REDWOOD STANDARDS	SDS		с С П
		ARCHITECTS	mpg-architects.com

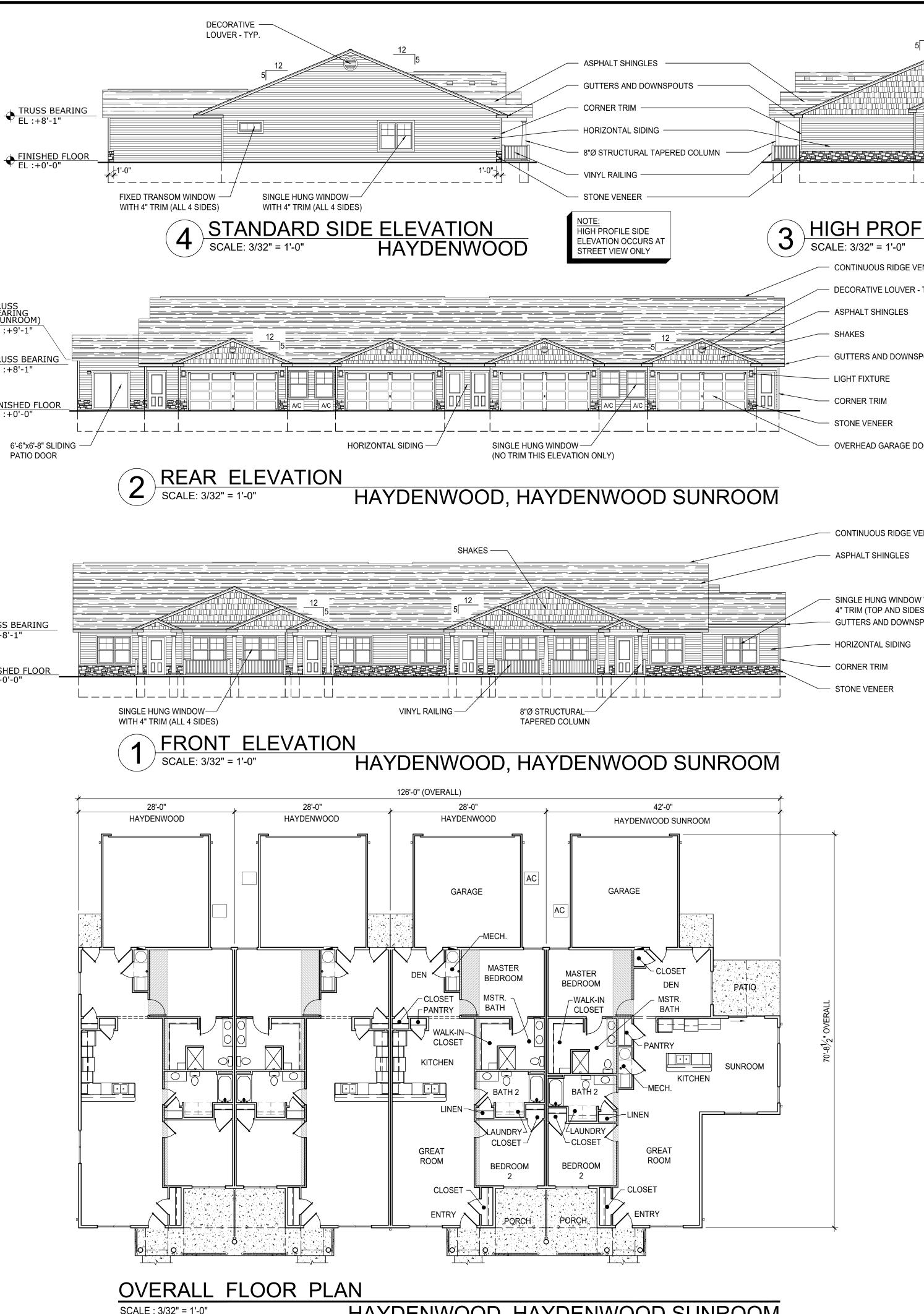
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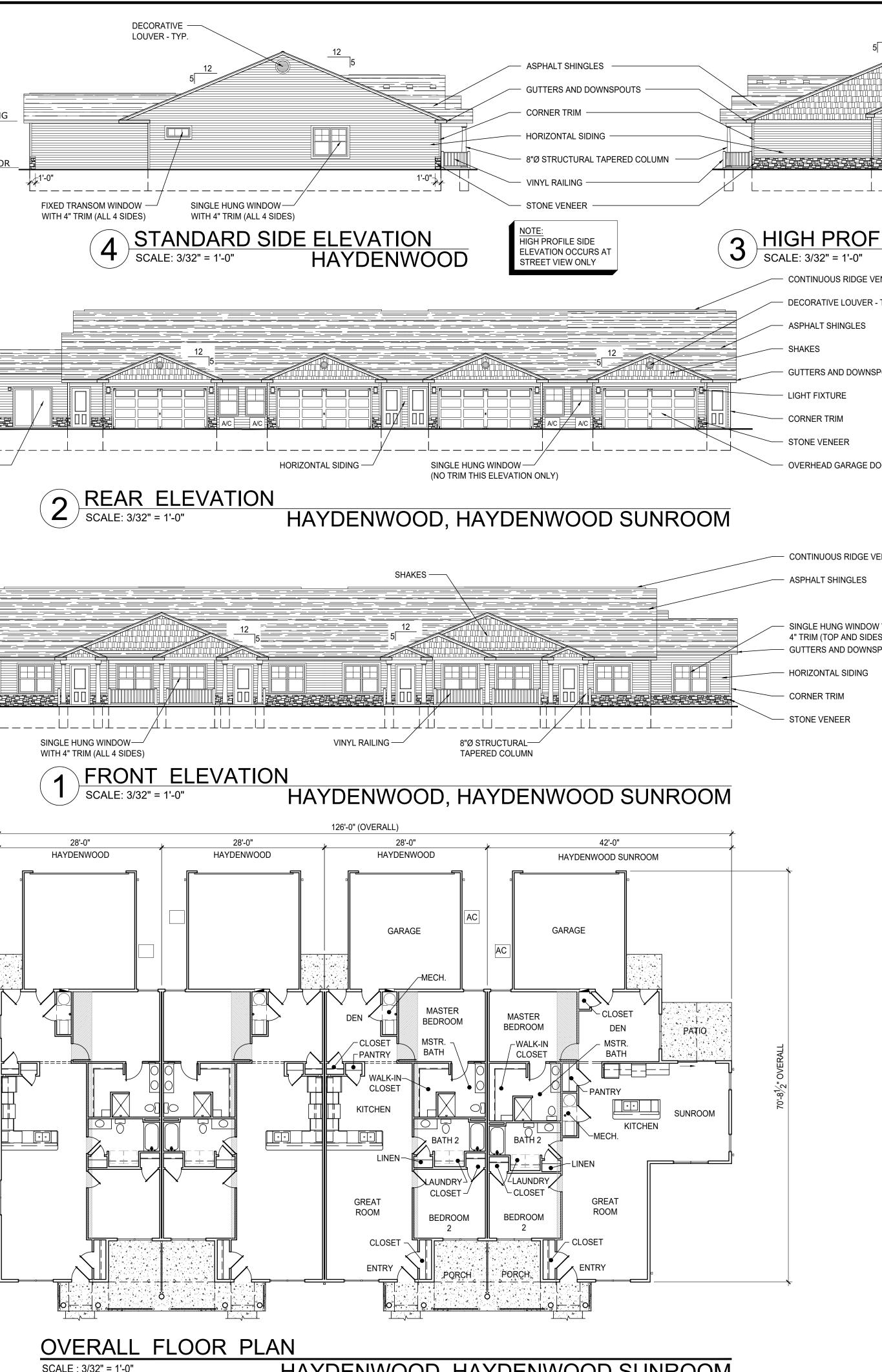
A1.4

CONTINUOUS RIDGE VENT	
ASPHALT SHINGLES	
GUTTERS AND DOWNSPOUTS -	
HORIZONTAL SIDING	
CORNER TRIM	
STONE VENEER	
REINFORCED CONCRETE —	



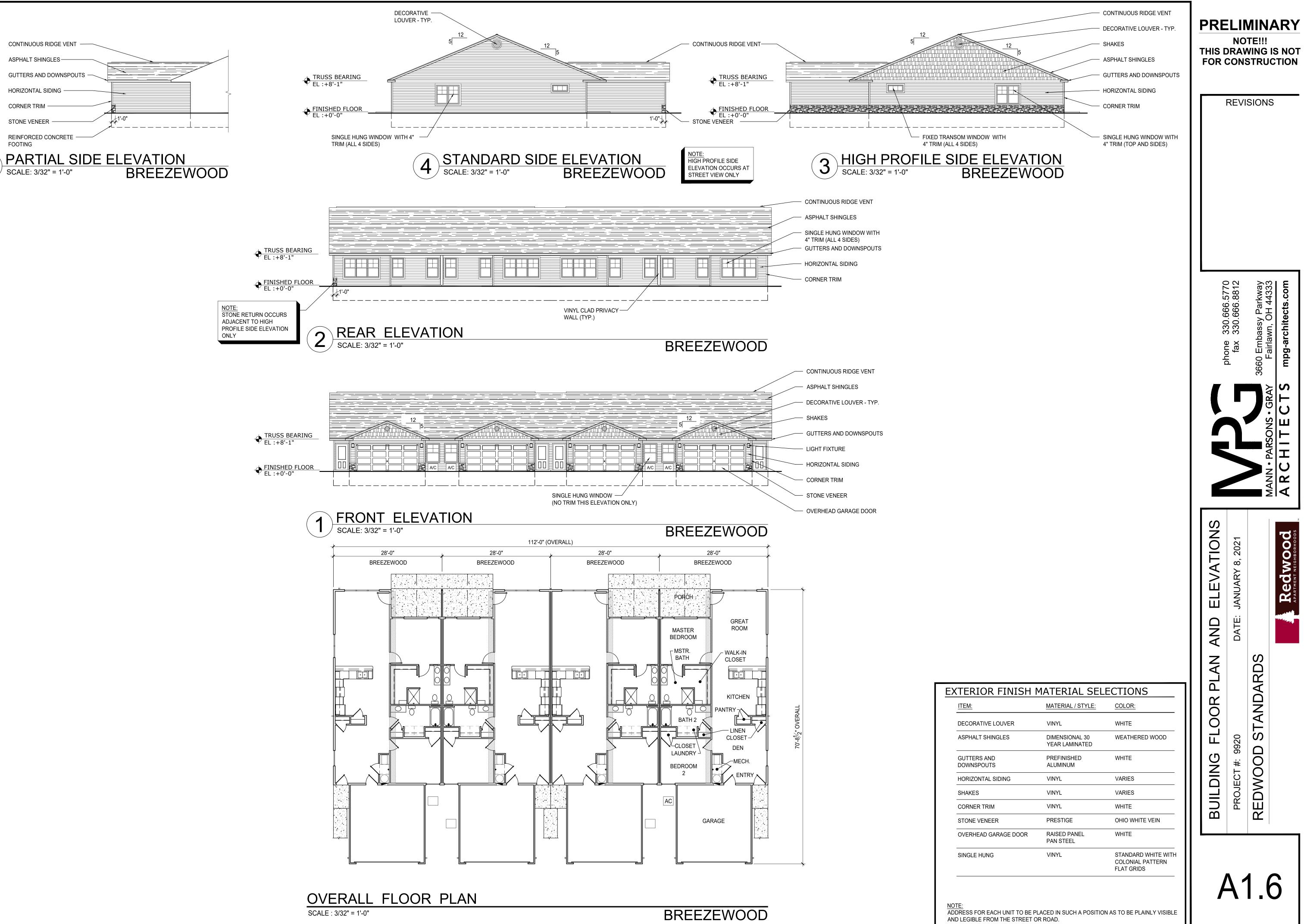


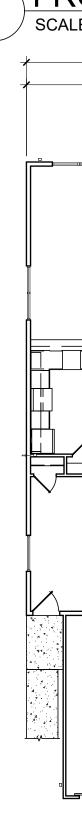






	DECORATIVE LOUVER - TYP. SHAKES	E TRUSS E FINISHE E	TRUSS BEARING JNROOM) L :+9'-1" BEARING L :+8'-1" D FLOOR L :+0'-0"	THIS	NO DRAV CONS	AINA TE!!! VING IS STRUC	S NOT
POUTS DOR ENT / WITH S) POUTS					phone 330.666.8812 fax 330.666.8812	MANN • PARSONS • GRAY Fairlawn, OH 44333	A R C H I T E C T S mpg-architects.com
	EXTERIOR FINISH I ITEM: DECORATIVE LOUVER ASPHALT SHINGLES GUTTERS AND DOWNSPOUTS HORIZONTAL SIDING SHAKES CORNER TRIM STONE VENEER OVERHEAD GARAGE DOOR	MATERIAL SEL MATERIAL / STYLE: VINYL VINYL DIMENSIONAL 30 YEAR LAMINATED PREFINISHED ALUMINUM VINYL VINYL VINYL VINYL VINYL PRESTIGE RAISED PANEL	ECTIONS COLOR: WHITE WHITE WEATHERED WOOD WHITE VARIES VARIES VARIES WHITE OHIO WHITE VEIN WHITE	BUILDING FLOOR PLAN AND ELEVATIONS	PROJECT #: 9920 DATE: JANUARY 8, 2021	REDWOOD STANDARDS	Redwood Apartment Neighborhoods
	OVERHEAD GARAGE DOOR SINGLE HUNG NOTE: ADDRESS FOR EACH UNIT TO BE P AND LEGIBLE FROM THE STREET C	PAN STEEL VINYL LACED IN SUCH A POSITIO	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS		41	1.5	5





CONTINUOUS RIDGE VENT -----

GUTTERS AND DOWNSPOUTS

1'-0"

ASPHALT SHINGLES -

HORIZONTAL SIDING -

REINFORCED CONCRETE

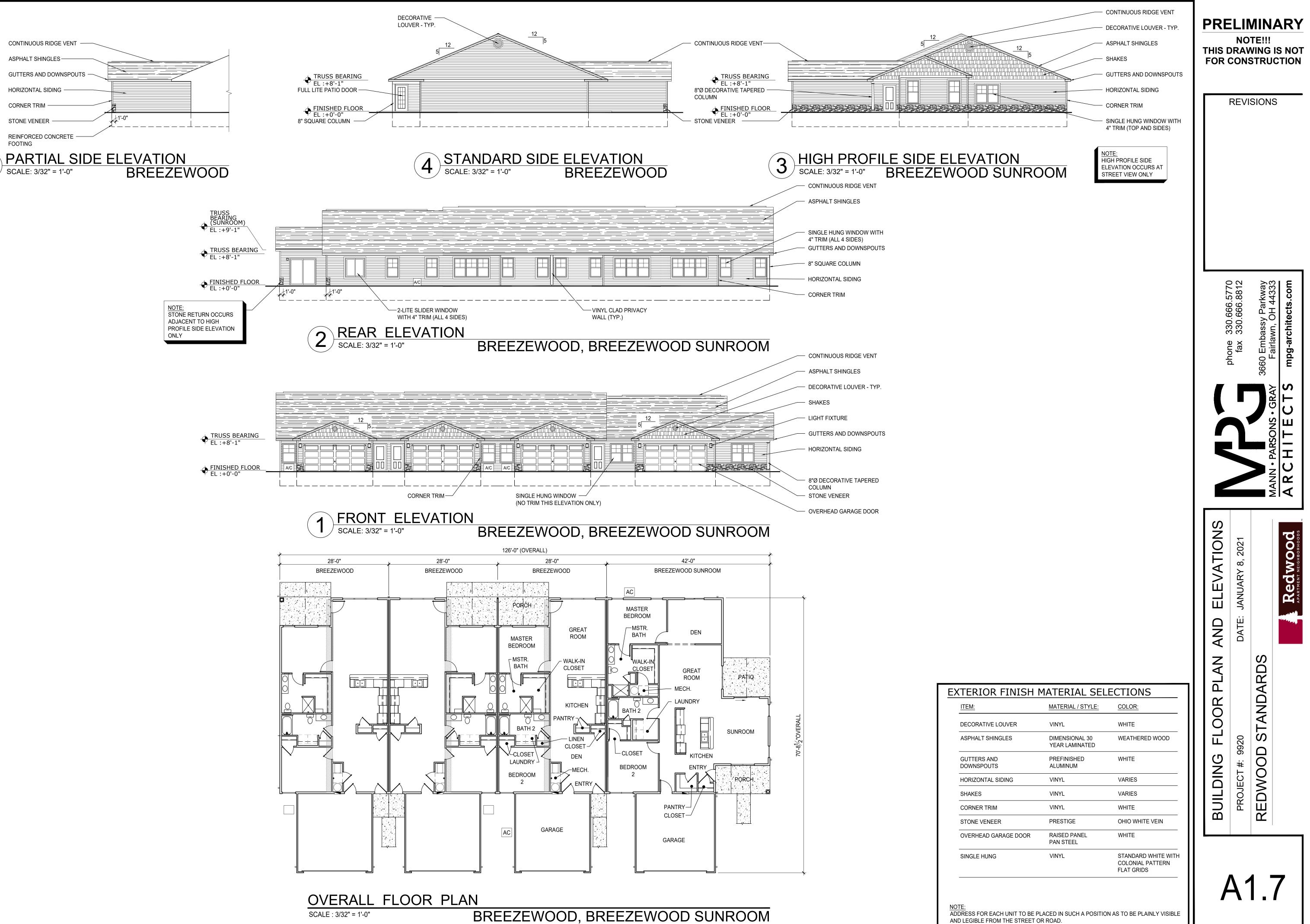
SCALE: 3/32" = 1'-0"

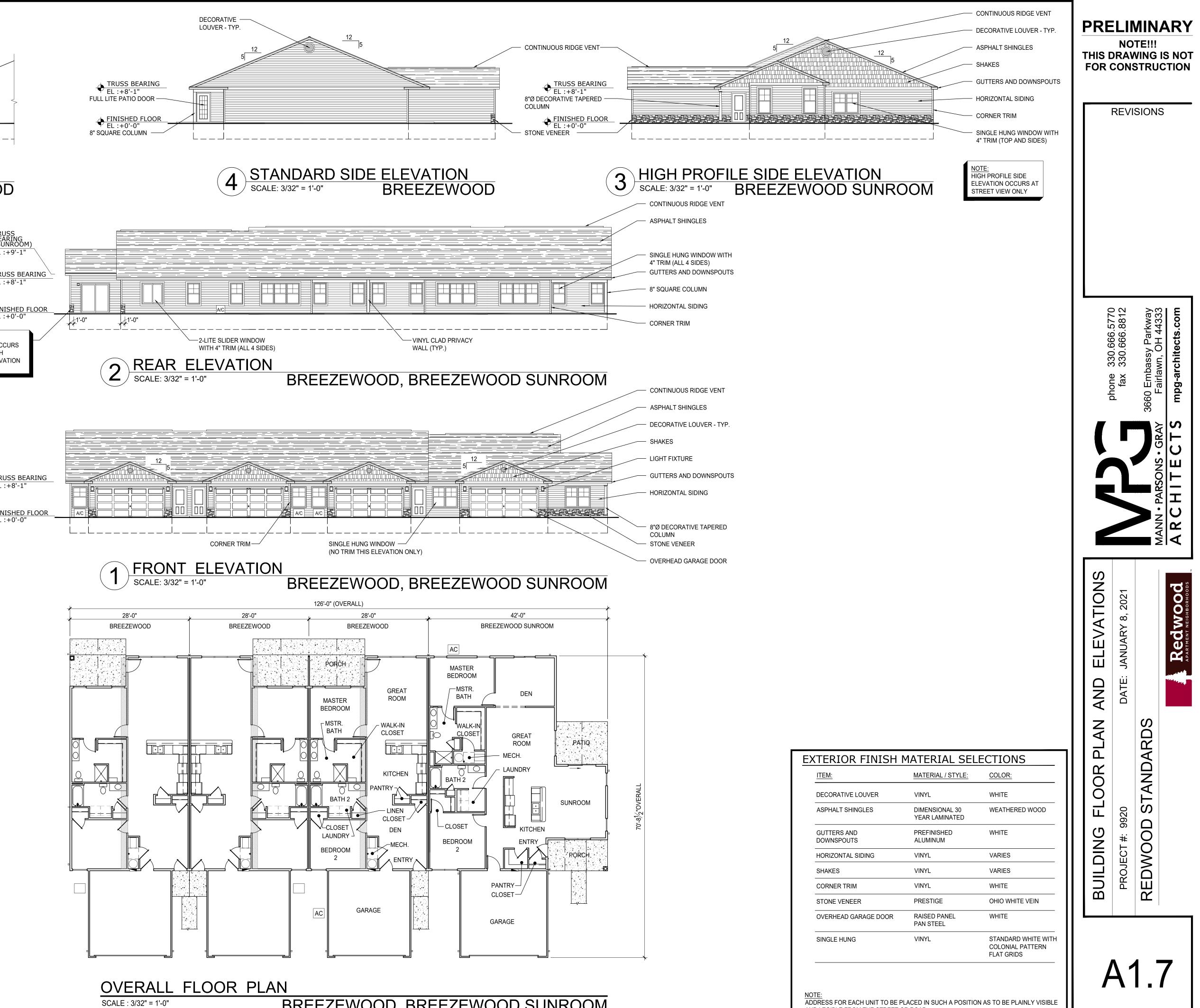
CORNER TRIM -

STONE VENEER

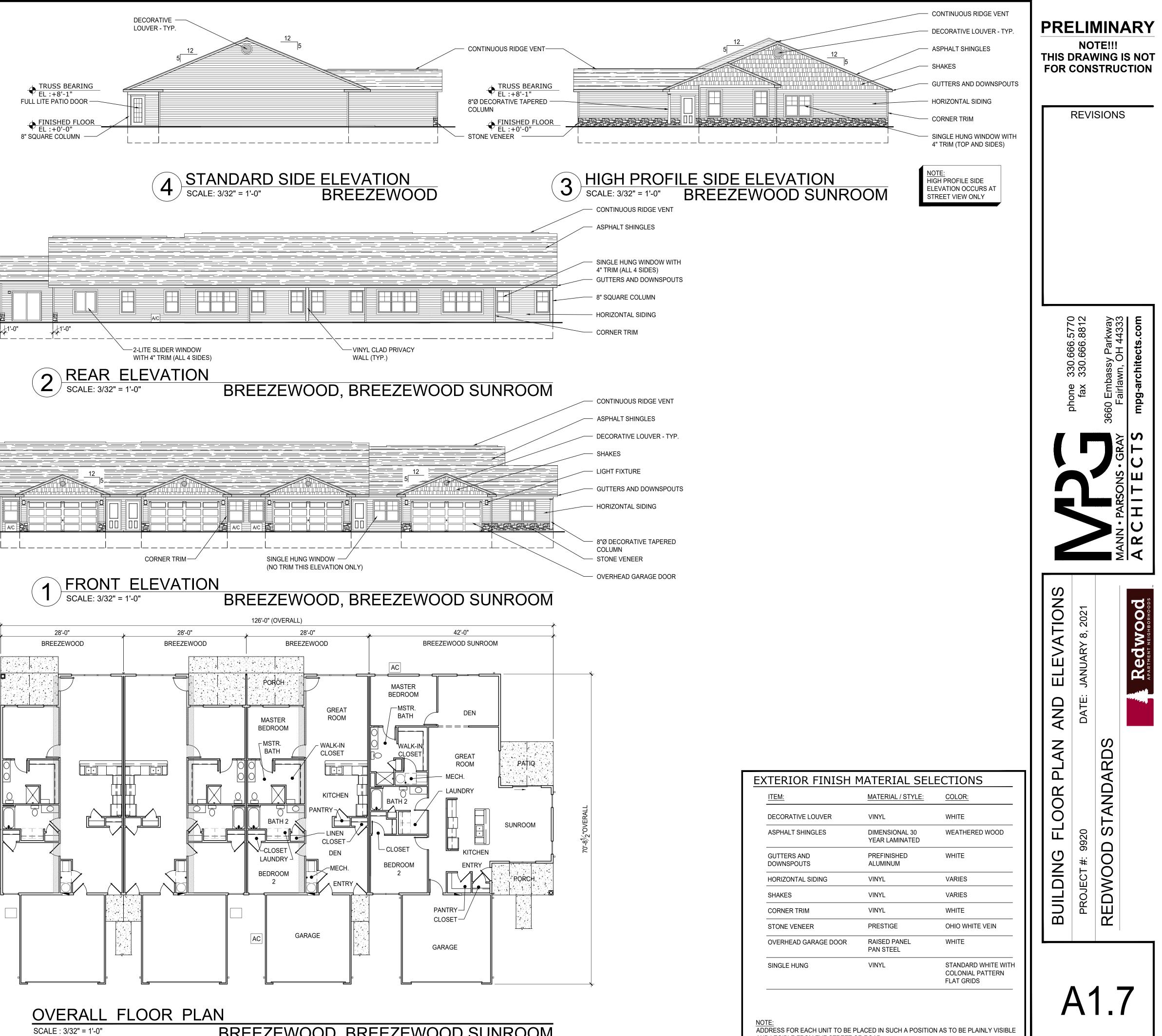
FOOTING



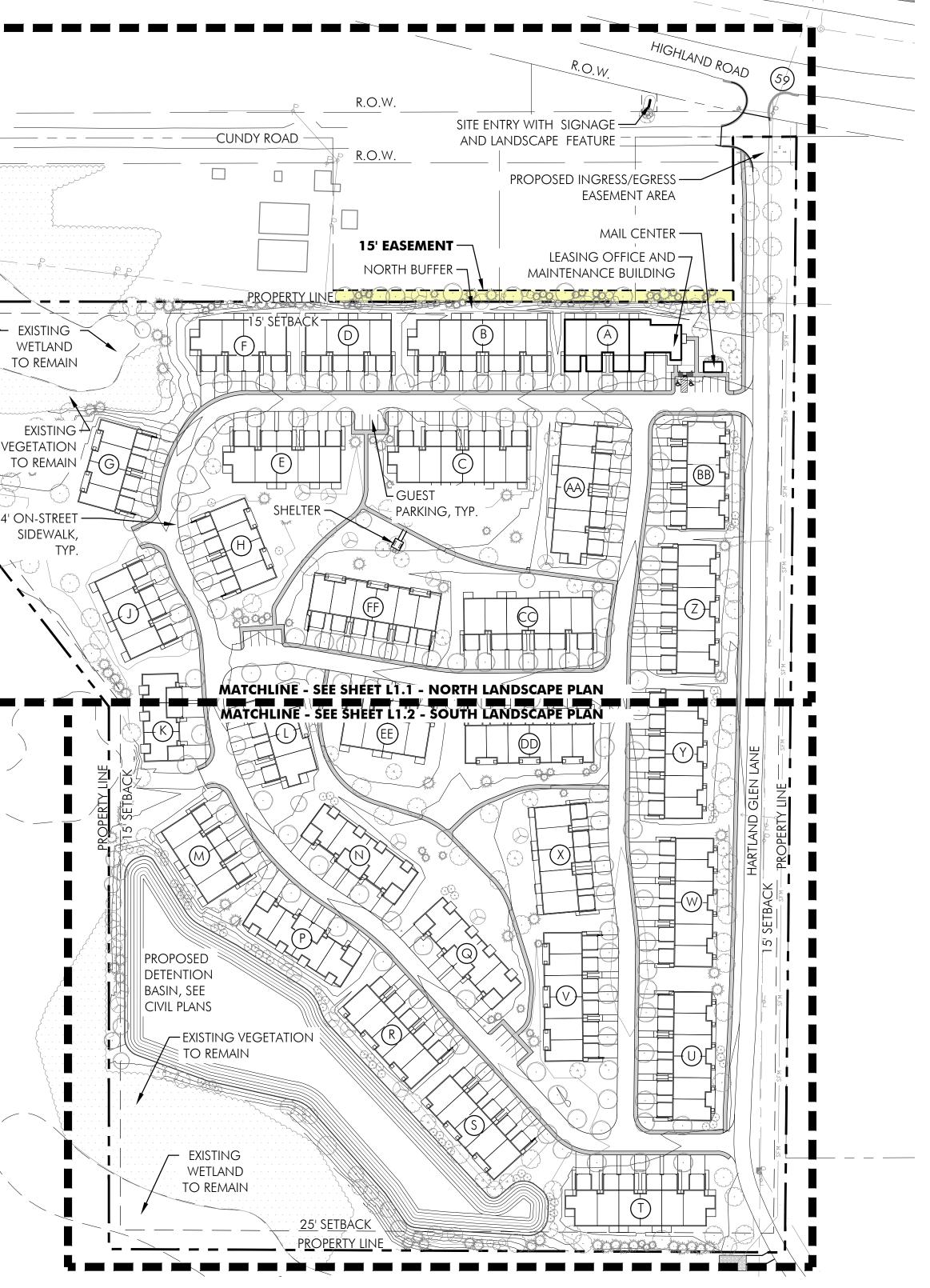


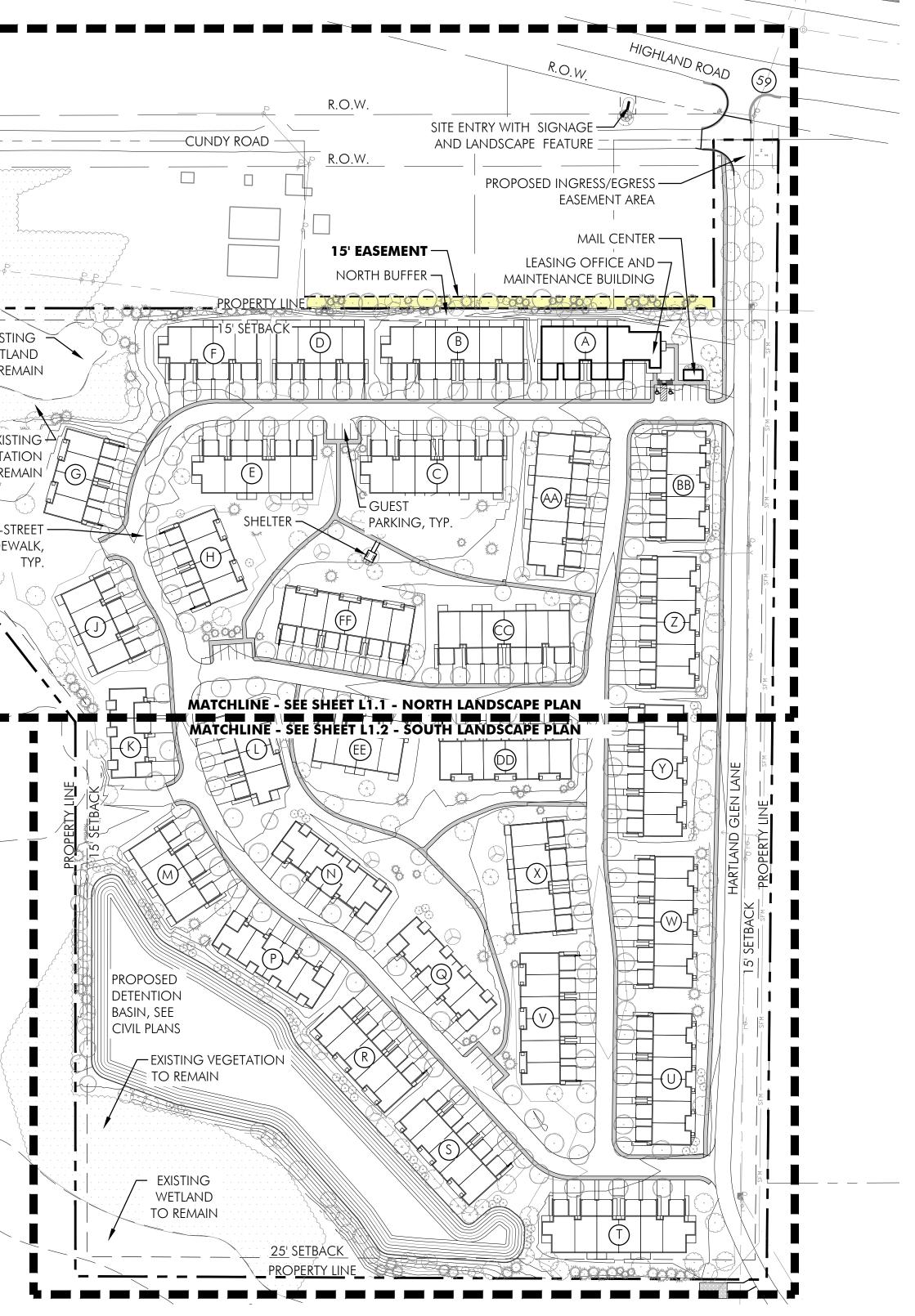


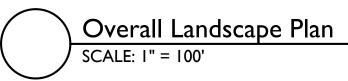












PLANT INSTALLATION NOTES

- CONTRACTOR SHALL VERIFY WITH THE OWNER AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO STARTING WORK. CALL THE MICHIGAN UTILITIES PROTECTION SERVICE AT 800-482-7171. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- 2. PLANT MATERIAL SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
- 3. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL SITE ELEMENTS AND IMMEDIATELY INFORM THE OWNER AND DESIGN CONSULTANT OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS A DISCREPANCY WITHOUT OWNER'S APPROVAL.
- 4. CONTACT THE OWNER TO REQUEST ELECTRONIC FILES FOR LAYOUT AND STAKING.

- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING IN THE PROJECT REQUIRED TO PROVIDE A PROPER SOD AND PLANTING BED.
- CONTRACTOR SHALL PROVIDE THE FOLLOWING SOIL AMENDMENTS: SOIL AMENDMENT: TOP GRADE SITE MANAGEMENT CONTRACTORS COMPOST (OR EQUAL) 3407 58TH STREET HAMILTON, MI 49419 269-751-8898

PERENNIAL BED AREAS: SPREAD 3" OF ORGANIC COMPOST OVER NEW LANDSCAPE AREAS AND INCORPORATE INTO THE TOP 8" OF THE SOIL BY MECHANICAL TILLER.

TREES AND SHRUBS: MIX 30% ORGANIC COMPOST TO 70% EXISTING SOIL FROM PLANT PIT EXCAVATION. IF EXCAVATED SOIL IS NOT SUITABLE, SUPPLEMENT WITH IMPORTED TOPSOIL.

7. ALL PLANT MATERIAL TO MEET OR EXCEED AMERICAN STANDARD FOR NURSERY STOCK, 2014 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.

- ALL PLANT MATERIALS SUBJECT TO INSPECTION PRIOR, DURING AND AFTER INSTALLATION. ANY PLANT NOT MEETING THE REQUIREMENTS WILL BE CAUSE FOR REJECTION BY THE OWNER. ALL REJECTED PLANTS SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE REPLACEMENT MATERIAL SHALL BE PROVIDED.
- 9. ALL SUBSTITUTIONS AND PLANT CHANGES MUST BE APPROVED BY THE OWNER AND DESIGN CONSULTANT PRIOR TO ANY ACTION TAKEN. TREES SHALL BE PROTECTED AND HANDLED CAREFULLY AT ALL TIMES DURING TRANSPORT & HANDLING TO PREVENT DRYING OF TREE OR ROOT BALL BY WINDS AND TO PREVENT ANY DAMAGE OR BREAKAGE OF THE ROOT BALL. BARK SHALL BE PROTECTED FROM BRUISING OR ABRASION.
- 10. WATER TREES IMMEDIATELY AFTER PLANTING AND CONTINUE TO WATER UNTIL FINAL ACCEPTANCE BY THE OWNER.
- 11. PLANT LOCATIONS AND BEDS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY OWNER AND DESIGN CONSULTANT BY PRIOR TO PLANT INSTALLATION.
- 12. BED LINE TO BE 18" FROM BASE OF PLANT MATERIAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

ZONING REQUIEMENTS

POND PERIMETER: CREDIT: EX. WETLAND BUFFER: CALCULATED POND PERIMETER: REQUIRED:

1671 - 436 = 1235 LF 13 CANOPY TREES 12 EVERGREEN TREES

1671 LF

REQUIRED PROVIDED:

PROVIDED:

80 ORNAMENTAL TREES

PI ANIT LIST.

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COND.	COMMENTS
		DECIDUOUS TREES			
AC FR	Acer x freemanii 'Armstrong'	Armstrong Maple	3" cal.	B&B	As Shown
AC RU	Acer rubrum 'October Glory'	October Glory Maple	3" cal.	B&B	As Shown
AM GR	Amelanchier x grandiflora ' Autumn Brilliance	Autumn Brilliance Serviceberry	12' multi-stem	B&B	As Shown
be po	Betula populifolia 'Whitespire'	Whitespire Birch	12' multi-stem	B&B	As Shown
CA CA	Carpinus caroliniana	American Hornbeam	12' ht.	B&B	As Shown
CR PU	Crataegus punctata 'Ohio Pioneer'	Ohio Pioneer Hawthorn	2" cal.	B&B	As Shown
CE OC	Celtis occidentalis	Common Hackberry	3" cal.	B&B	As Shown
CE CA	Cercis canadensis	Eastern Redbud	12' multi-stem	B&B	As Shown
GL TR	Gleditsia tricanthos f. inermis 'Skycole'	Skyline Honeylocust	3" cal.	B&B	As Shown
MA VI	Magnolia virginiana 'Moonglow'	Moonglow SweetbayMagnolia	12' multi-stem	B&B	As Shown
QU AL	Quercus alba	White Oak	3" cal.	B&B	As Shown
TI AM	Tilia americana 'Redmond'	Redmond Linden	3" cal.	B&B	As Shown
UL PA	Ulmus parvifolia	Lacebark Elm	3" cal.	B&B	As Shown
		EVERGREEN TREES			
AB CO	Abies concolor	White Fir	8' ht.	B&B	As Shown
PI ST	Pinus strobus	Eastern White Pine	8' ht.	B&B	As Shown
ts ca	Tsuga canadensis	Canadian Hemlock	8' ht.	B&B	As Shown
		SHRUBS			
СН СО	Chamaecyparis p. compacta variegata	Dwarf Variegated False Cypress	18" ht	Cont.	
CO SE	Cornus sericea 'Bailei'	Redosier Dogwood	36" ht	B&B	As Shown
IL GL	Ilex glabra 'Densa'	Dense Compact Inkberry	24" spread	Cont.	As Shown
IT VI	Itea virginica 'Little Henry'	Little Henry Virginia Sweetspire	18" ht	Cont.	As Shown
JU CH	Juniperus chinensis 'Sea Green"	Sea Green Juniper	24" spread	Cont.	As Shown
JU SA	Juniperus sabina 'Buffalo'	Buffalo Juniper	24" spread	Cont.	As Shown
JU VI	Juniperus virginiana 'Emerald Sentinel'	Emerald Sentinel Juniper	6' ht.	B&B	As Shown
SP JA	Spiraea japonica 'Goldflame'	Goldflame Spirea	18" ht.	Cont.	As Shown
SY ME	Syringa meyeri ' Palibin'	Palibin Lilac	24" ht	B&B	As Shown
TH TE	Thuja o. 'Techny'	Mission Arborvitae	8' ht.	B&B	As Shown
VI PR	Viburnum x pragense	Prague Viburnum	36" ht	B&B	As Shown
	PERENNIAI	LS AND ORNAMENTAL GRASSES			
HE HR	Hemerocallis 'Stella de Oro'	Stella de Oro Daylily	#1	cont.	18" o.c.
PA VI	Panicum virgatum 'Rotstrahlbusch'	Red Rays Switch Grass	#1	cont.	As Shown
PE HA	Pennisetum a. 'Hameln'	Dwarf Fountain Grass	#1	cont.	As Shown

- 13. ALL SHRUB AND BED AREAS, EXCEPT AT PROJECT ENTRY TO BE MULCHED WITH 3" DEPTH MIN. NO. 34 WASHED RIVERROCK OVER WEED BARRIER FABRIC. DECIDUOUS TREES IN LAWN AREAS SHALL BE MULCHED WITH A 3' DIAMETER TREE RING USING 3" SHREDDED HARDWOOD BARK MULCH. DO NOT MOUND MULCH AROUND TREE ROOT COLLAR. SUBMIT SAMPLE TO OWNER FOR APPROVAL.
- 14. ALL AREAS OUTSIDE OF PLANTING BEDS SHALL BE SODDED AS SHOWN AND NOTED.
- 15. ALL SEEDED AREAS TO BE INSTALLED WITH HYDROSEED MIXTURE PER SEED SUPPLIER AND MANUFACTURERS SPECIFICATIONS.
- 16. ALL SLOPES IN EXCESS OF 3:1 (H:V) TO BE HYDROSEEDED AND MATTED WITH NAG \$75 MINIMUM WITH ROLLS ORIENTED DOWN SLOPE AND STAKED TO MANUFACTURERS RECOMMENDATIONS.
- 17. FINISHED TURF (SOD) TO BE FLUSH WITH TOP OF ADJACENT CURB OR WALK. COORDINATE WITH OWNER IN FIELD AS REQUIRED.
- 18. THE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS AND GROUND COVERS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. REPLACE MATERIAL WITHIN SEVEN (7) DAYS OF NOTIFICATION OF THE OWNER.

H iv. DETENTION/RETENTION AREAS SHALL HAVE A MINIMUM OF ONE CANOPY OR EVERGREEN TREE WITH TEN MEDIUM SHRUBS, OR SIX LARGE SHRUBS OR SIX ORNAMENTAL TREES FOR EVERY 50 LF OF POND PERIMETER

436 LF ADJACENT TO THE EXISTING VEGETATION

1235 / 50 = 25 CANOPY OR EVERGREEN TREES

 $(1235 \times 6) / 50 = 148 \text{ COMBINED ORNAMENTAL TREES AND LARGE SHRUBS}$

72 LARGE EVERGREEN AND DECIDUOUS SHRUBS

19. PERFORM CLEANING DURING INSTALLATION OF LANDSCAPE WORK AND UPON COMPLETION. REMOVE FROM SITE ALL EXCESS LANDSCAPE RELATED MATERIAL, SOIL DEBRIS AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM LANDSCAPING OPERATIONS. SWEEP AND HOSE DOWN PAVED SURFACES AFFECTED BY LANDSCAPING OPERATIONS. ALL HARD SURFACES INCLUDING BUILDINGS, PAVEMENTS, SIGNS, A/C UNITS AND FENCES SHALL HAVE HYDROSEED OVERSPRAY REMOVED BY LANDSCAPE CONTRACTOR AS PART OF THEIR CLEANUP. COORDINATE WITH OWNER AND OTHER CONTRACTORS FOR FINAL CLEANUP PRIOR TO CLEANING.

COMPLETED LANDSCAPE AND IRRIGATION SYSTEMS UNTIL THE DATE OF

- 20. MAINTENANCE: THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE
 - FINAL ACCEPTANCE. a. MOWING - MINIMUM ONCE PER WEEK. b. TRIMMING - SHRUBS, TREES, AND GROUND COVERS MINIMUM
 - TWO TIMES PER YEAR OR AS REQUIRED. c. FERTILIZING - APPLY FERTILIZER AT A RATE EQUAL TO 1 LB. OF
 - ACTUAL NITROGEN/1000 S.F. IN THE SPRING AND FALL TO ALL TURF AND PLANTINGS.
 - d. BED EDGING EDGE ALL BEDS BY HAND, SPADE AT LEAST TWO TIMES PER YEAR AND TOP-MULCH AS NEEDED WITH NO. 34 RIVER STONE IN FALL AND SPRING.



Columbus

100 Northwoods Blvd, Ste A Columbus, Ohio 43235 p 614.255.3399

Cincinnati

20 Village Square Floor 3 Cincinnati, Ohio 45246 p 614.360.3066

PODdesign.net

Project Name Redwood Hartland MI

Hartland Township, MI

Redwood

Prepared For

Redwood Living 7007 East Pleasant Valley Road Independence, OH 44131

Project Info

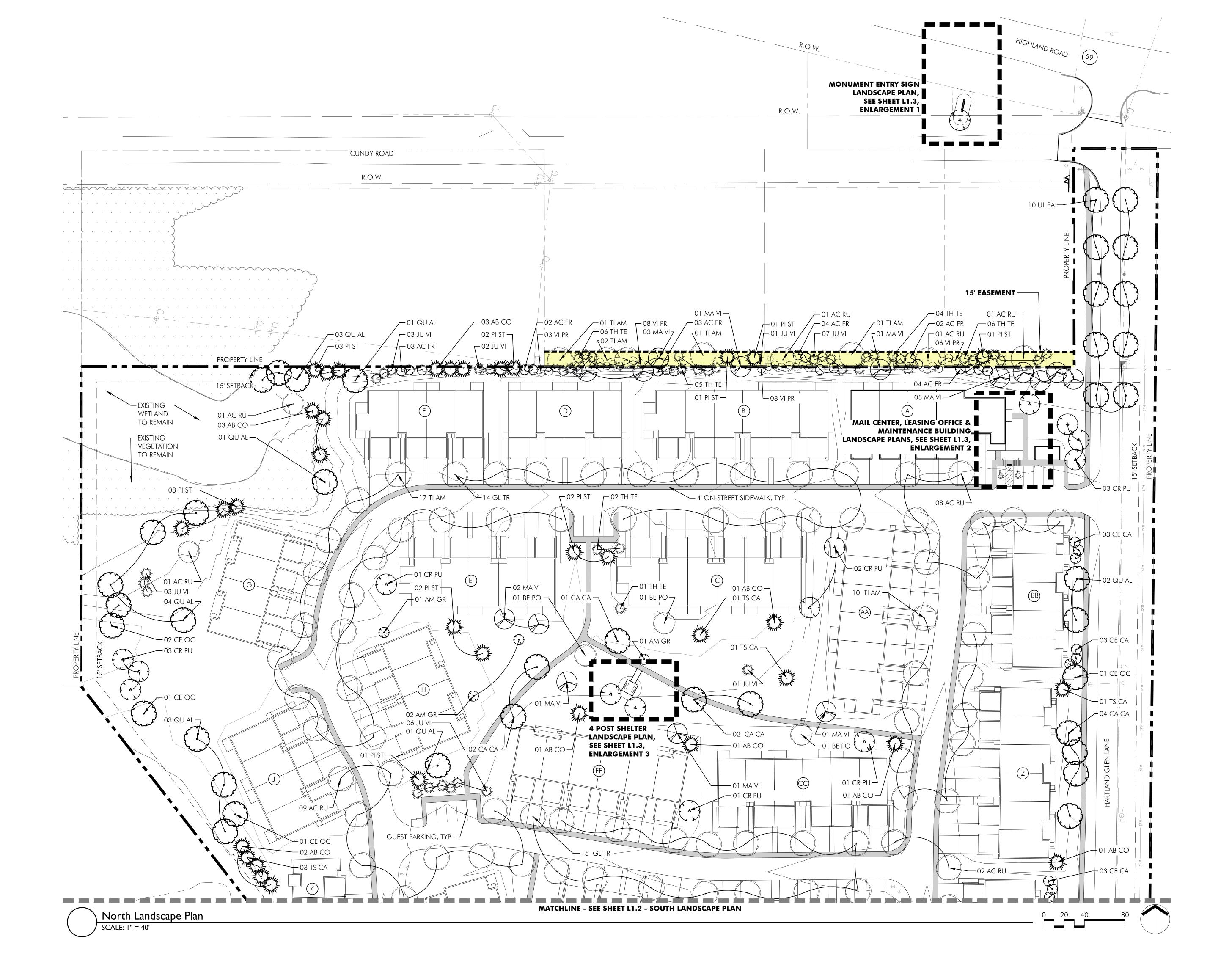
Project # Date By Scale

20011 07/06/2021 SF, SO, TF As Noted

Revisions

Sheet Title OVERALL REFENENCE PLAN

Sheet # L1.0





Columbus 100 Northwoods Blvd, Ste A Columbus, Ohio 43235 p 614.255.3399

Cincinnati 20 Village Square Floor 3 Cincinnati, Ohio 45246 p 614.360.3066

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Project Name Redwood Hartland MI

Hartland Township, MI



Prepared For

Redwood Living 7007 East Pleasant Valley Road Independence, OH 44131

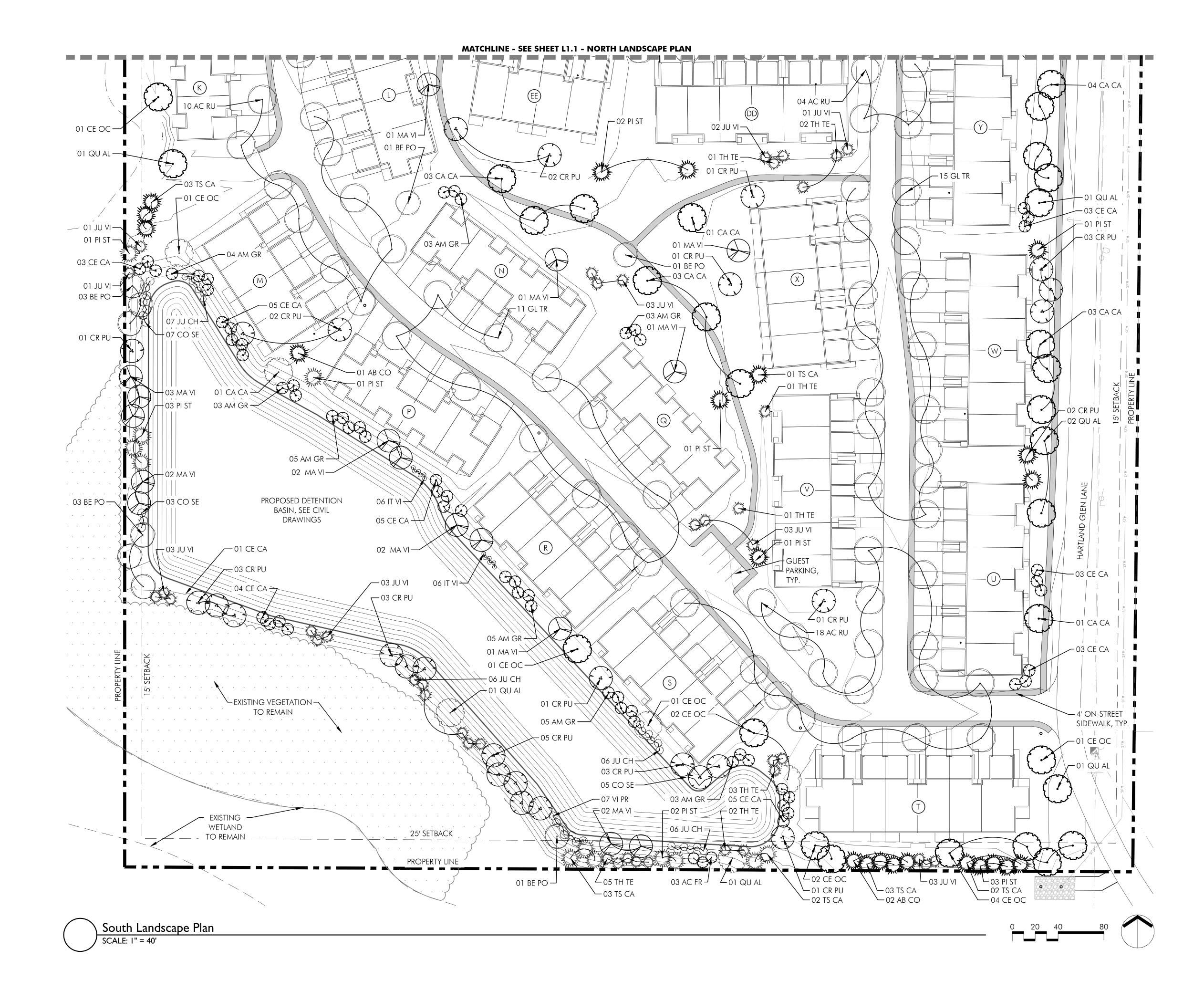
Project Info

Project # Date By Scale 20011 07/06/2021 SF, SO, TF As Noted

Revisions

Sheet Title NORTH LANDSCAPE PLAN

Sheet #





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Cincinnati 20 Village Square Floor 3 Cincinnati, Ohio 45246 p 614.360.3066

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Project Name Redwood Hartland MI

Hartland Township, MI



Prepared For Redwood Living

Redwood Living 7007 East Pleasant Valley Road Independence, OH 44131

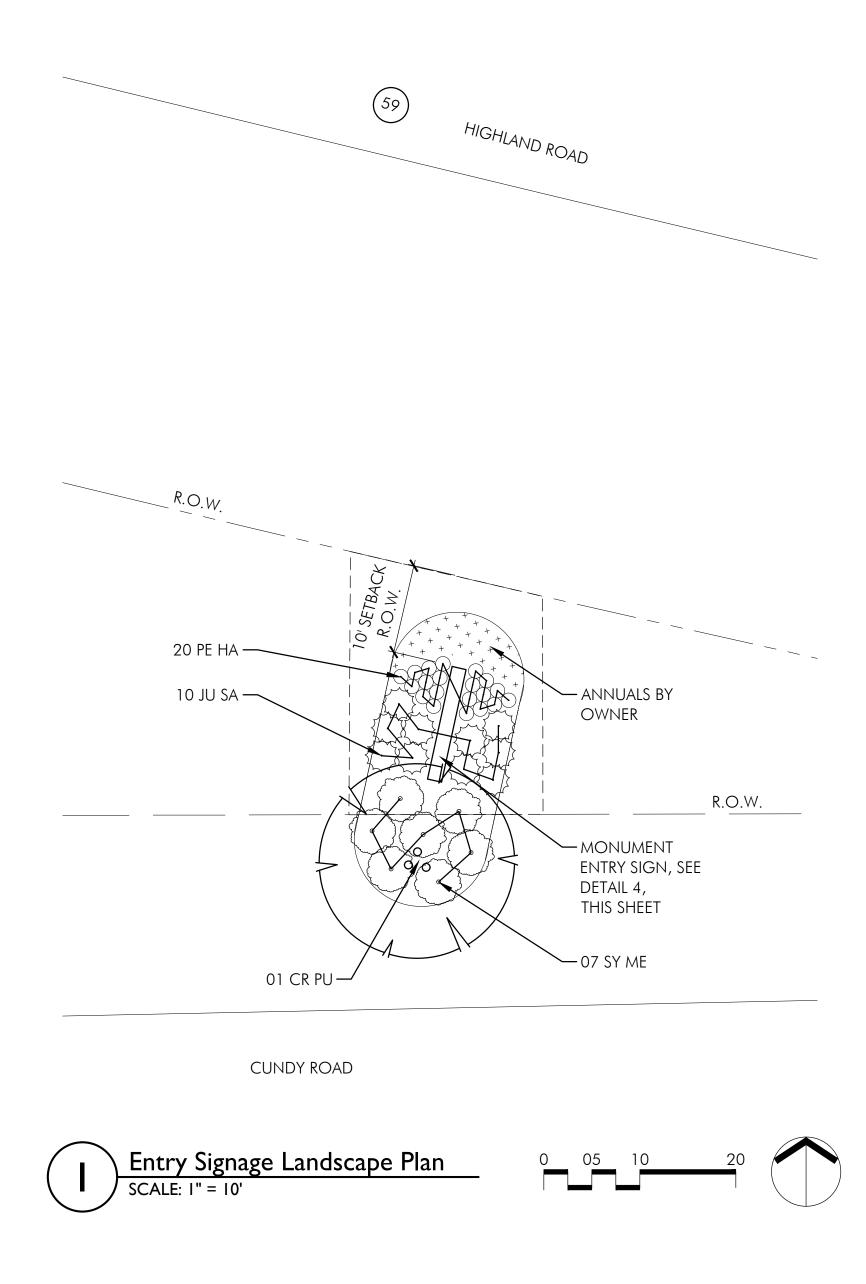
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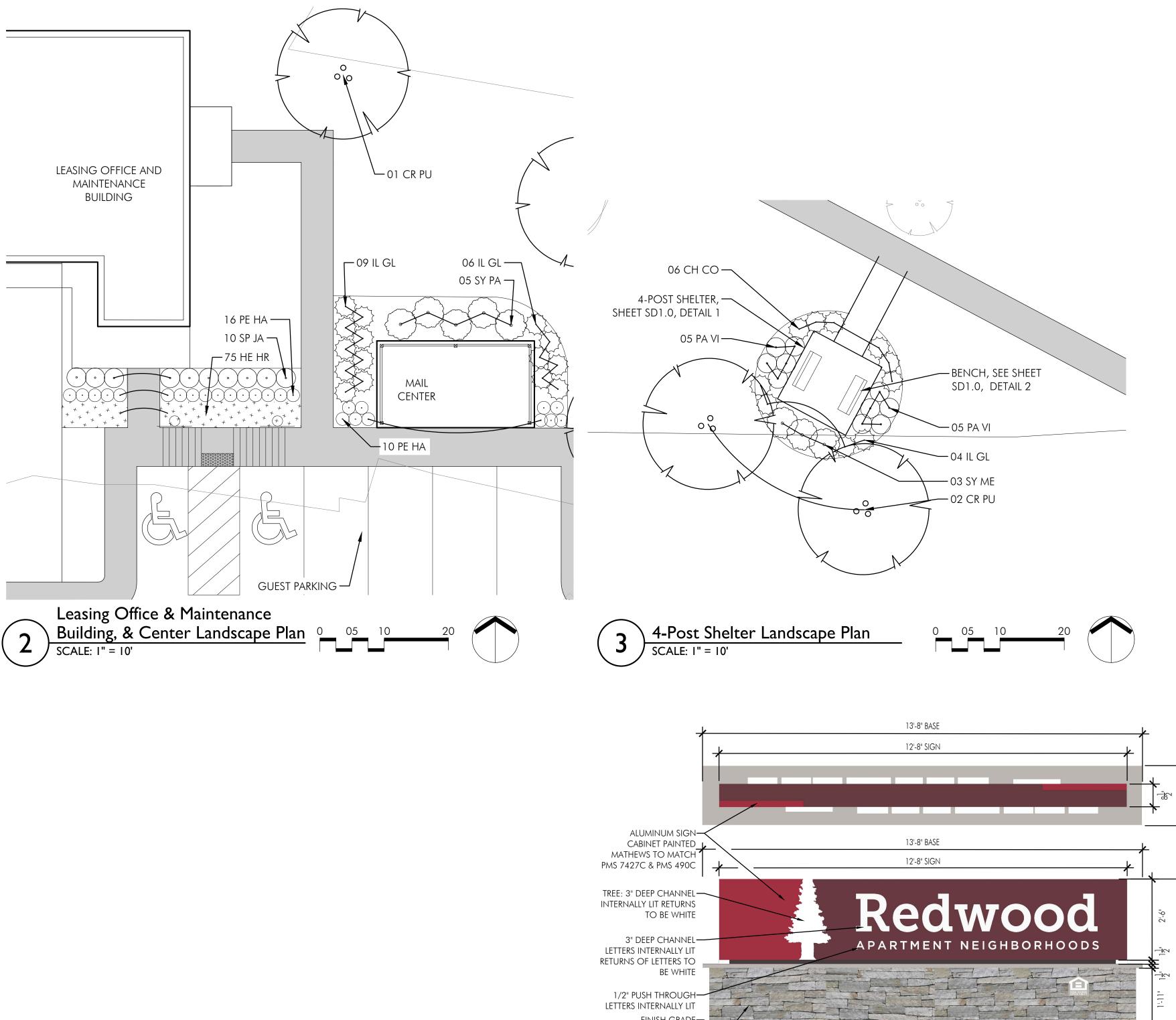
Project # Date By Scale 20011 07/06/2021 SF, SO, TF As Noted

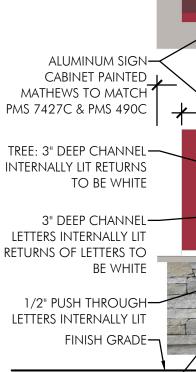
Revisions

South South LANDSCAPE PLAN

^{Sheet} #







ALUMINUM BASE WIT "CUT GRANITE" HIGH DENSITY URETHANE ATTACHED

4 Monument Entry Sign (32 SF face)



Columbus 100 Northwoods Blvd, Ste A Columbus, Ohio 43235 p 614.255.3399

Cincinnati 20 Village Square Floor 3 Cincinnati, Ohio 45246 p 614.360.3066

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Project Name Redwood Hartland MI

Hartland Township, MI



Prepared For Redwood Living 7007 East Pleasant Valley Road Independence, OH 44131

Project Info

Project # Date By Scale

20011 07/06/2021 SF, SO, TF As Noted

Revisions

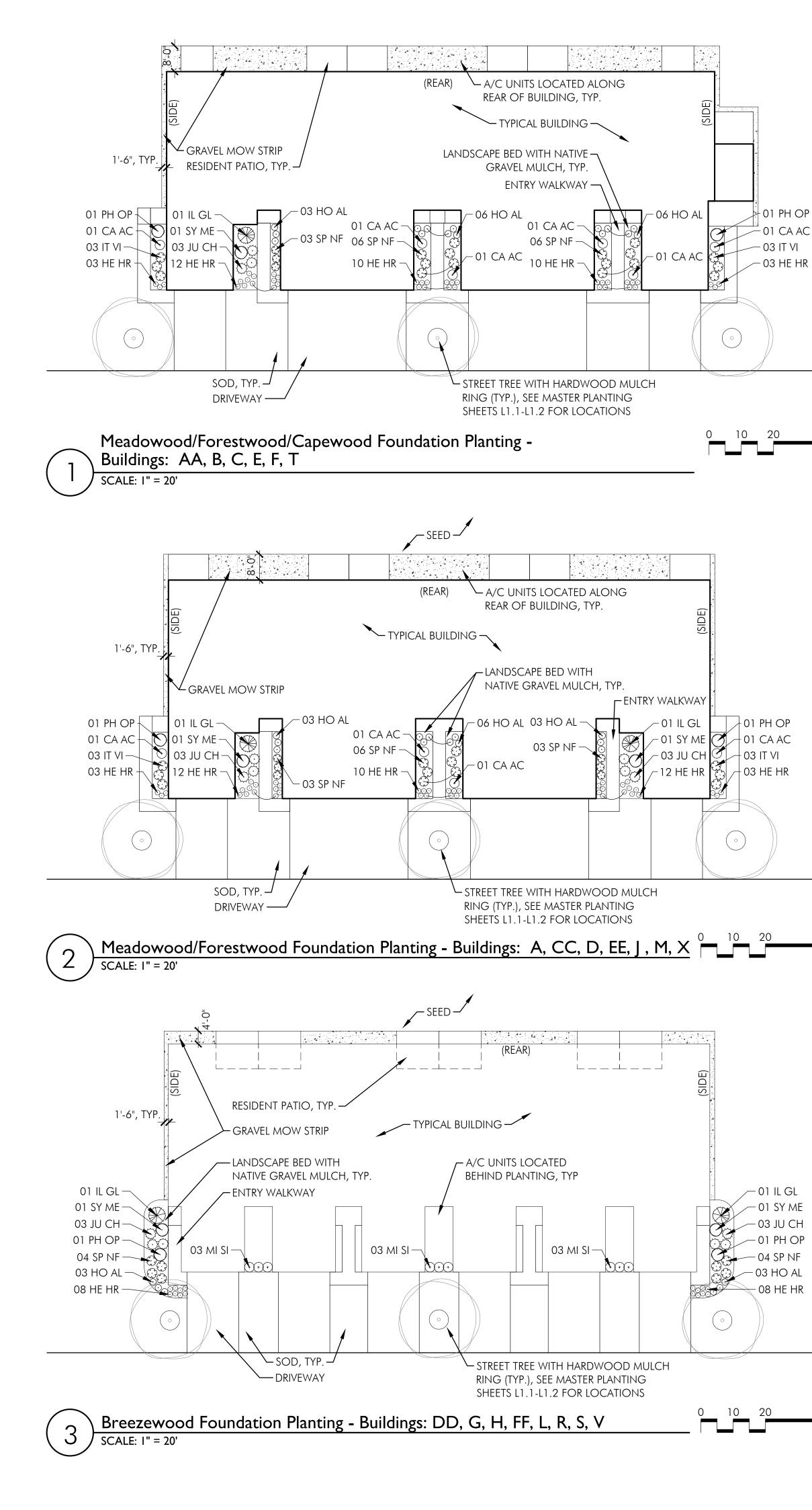
Sheet Title

LANDSCAPE PLAN **ENLARGEMENTS**

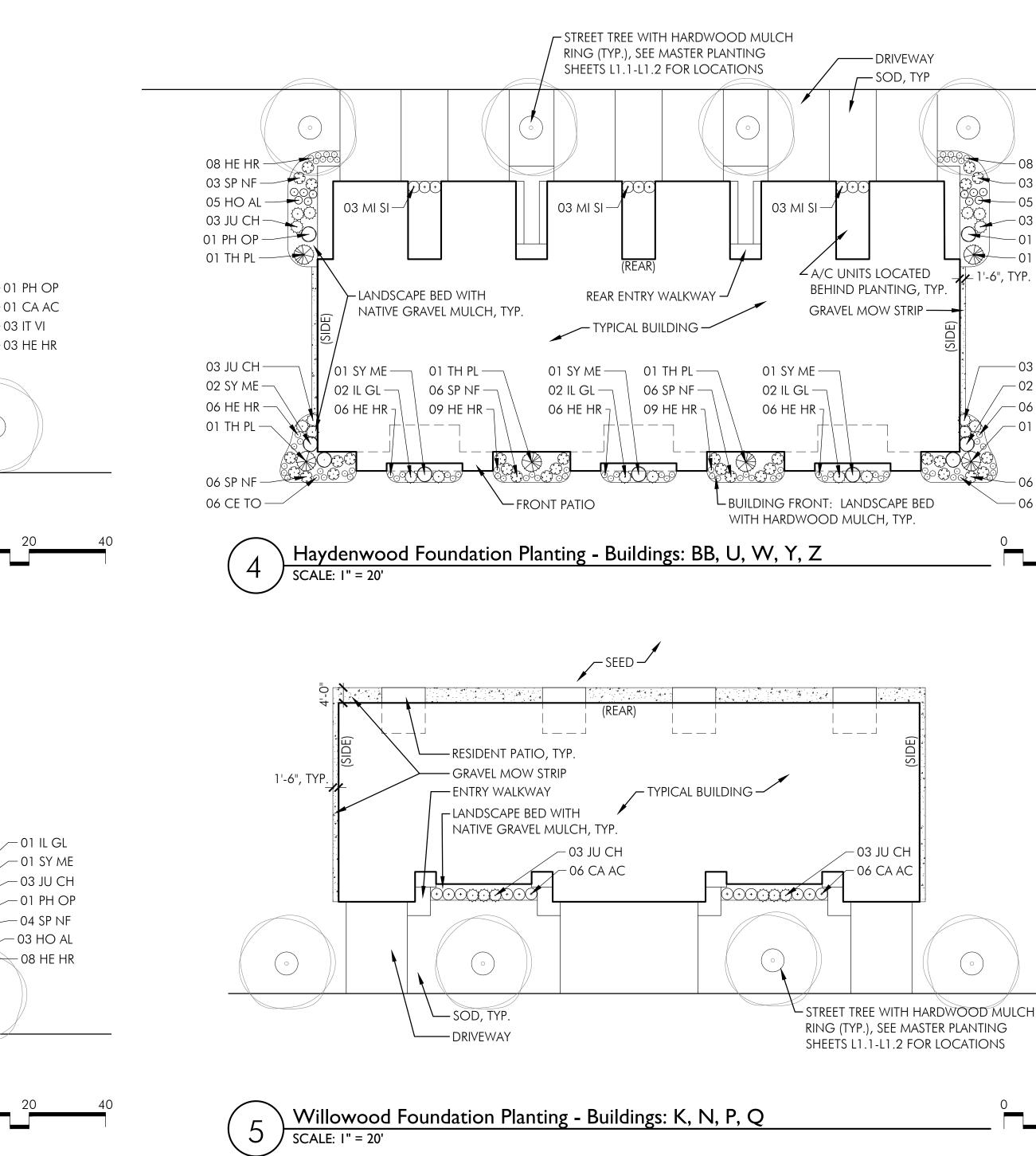
Sheet # L1.3

NOTE: CONTRACTOR TO VERIFY THAT ALL ARTWORK, SIZES, COLORS, SPELLING AND GRAMMAR ARE CORRECT. ONCE APPROVED BY OWNER, THE ARTWORK IS FINAL AND WILL BE PRINTED AS PICTURED. THE DESIGN SHOWN IS THE PROPERTY OF A SIGN ABOVE, INC. NO TRANSMITTAL OR DISCLOSURE SHALL BE MADE TO ANY PERSON, FIRM, OR CORPORATION WITHOUT PRIOR CONSENT

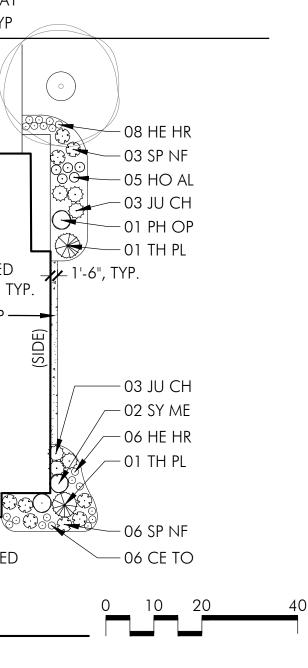
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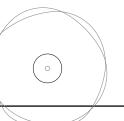


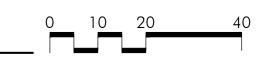
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COND.	SPAC
SHRUBS					
IL GL	llex glabra 'Densa'	Densa Compact Inkberry	18" hgt.	Cont.	As Sł
IT VI	ltea virginiana	Virginia Sweetspire	18" hgt.	Cont.	As Sł
JU CH	Juniperus chinensis 'Nicks Compact'	Nicks Compact Juniper	18" hgt.	Cont.	As Sł
PH OP	Physocarpus opulifolius 'Little Devil'	Little Devil Ninebark	18" hgt.	Cont.	As Sł
SP NF	Spiraea x 'Neon Flash'	Neon Flash Spirea	18" hgt.	Cont.	As Sł
SY ME	Syringa meyeri	Palabin Lilac	30" hgt.	Cont.	As Sł
TH PL	Thuja plicata 'Gelderland'	Gelderland Western Arborvitae	4' hgt.	Cont.	As Sł
PERENNIA	LS & ORNAMENTAL GRASSES				
CA AC	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	2 gal.	Cont.	As Sł
CE TO	Cerastium tomentosum	Snow in the Summer	1 gal.	Cont.	As Sł
HE HR	Hemerocallis 'Happy Returns'	Happy Returns Daylily	1 gal.	Cont.	As Sł
HO AL	Hosta 'Fortunei Albamarginata'	Variegated Hosta	1 gal.	Cont.	As Sł
MI SI	Miscanthus sinensis 'Gracillimus'	Maiden Grass	1 gal.	Cont.	As Sł



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Project Name Redwood **Hartland MI**

Hartland Township, MI



Prepared For

Redwood Living 7007 East Pleasant Valley Road Independence, OH 44131

Project Info

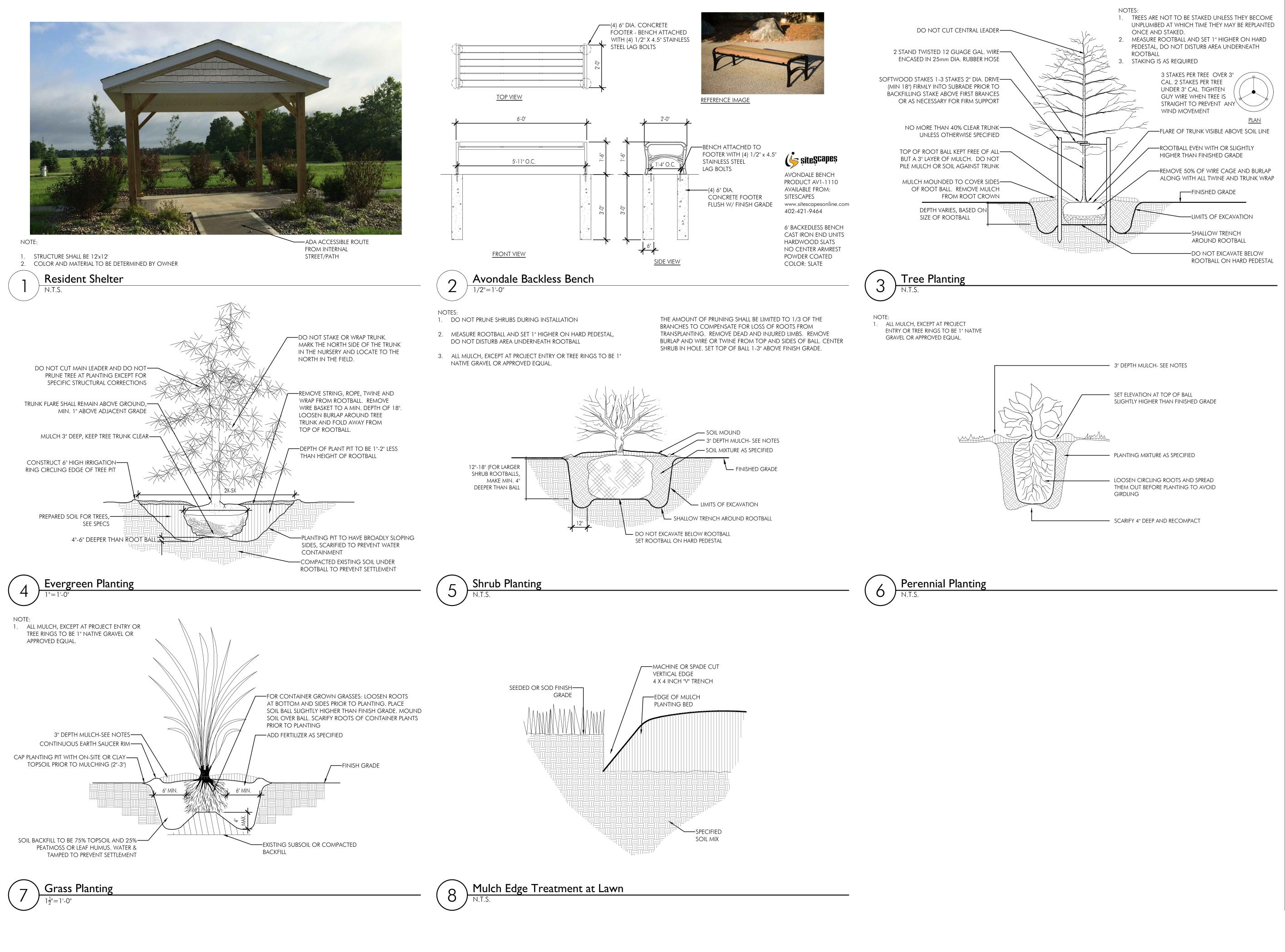
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20011 07/06/2021 SF, SO, TF As Noted

Revisions

Sheet Title **TYPICAL** FOUNDATION PLANTING

Sheet # L1.4





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Project Name Redwood **Hartland MI**

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Redwood PARTMENT NEIGHBORH

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Revisions

Sheet Title LANDSCAPE & SITE DETAILS

Sheet # **SD1.0**