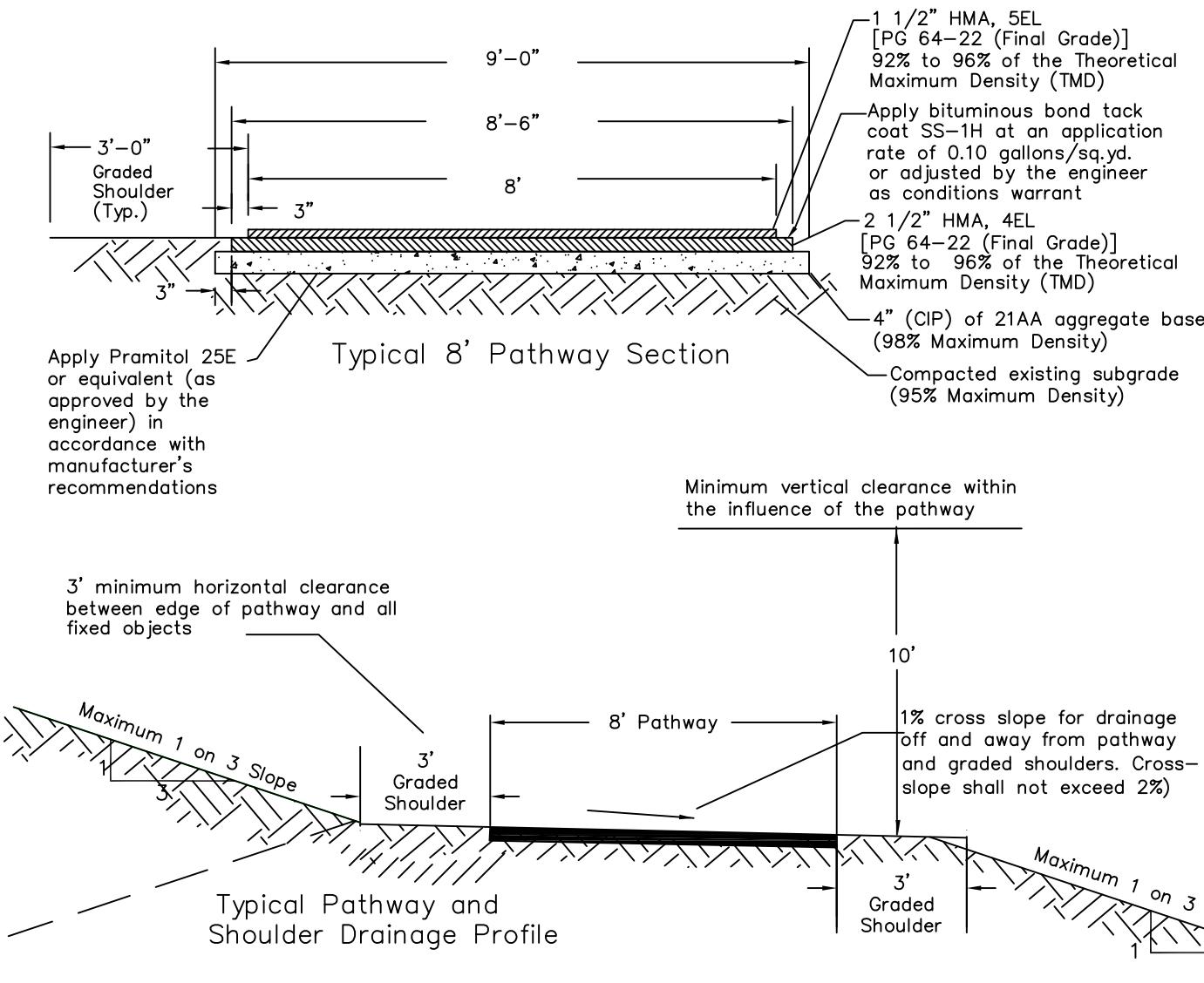


Standard Details:



Standard Notes:

1. Maximum grade of 5% along mainline pathway. Maximum grade at ramps 8.33% (recommended for 5%).
2. 1% cross slope (i.e. super elevation) for drainage off and away from pathway and graded shoulders (2% maximum cross-slope).
3. 60' minimum center line radii for pathway horizontal alignment.
4. Provide a minimum of 3' horizontal clearance and 10' vertical clearance from all fixed objects and the edge of pathway surface. Relocation of existing objects (i.e. mail boxes, signs, etc.) shall be considered incidental work items.
5. Pathway ramps shall be constructed in accordance with MDOT standard detail R-28 Series and shall have a minimum clear opening of 8' wide.
6. A clean saw cut joint shall be provided wherever new pavement matches existing pavement (incidental work item).
7. Utility structures shall be adjusted in accordance with the City of Rochester Hills standards and shall match the proposed grade of the pathway.
8. Pathway shall be 6 inch thick HMA or concrete through residential drives and 9 inch thick HMA or 8 inch thick concrete through commercial drives.
9. Pathway asphalt shall be paid for as "Shared Use Path, HMA" when part of public improvement project.
10. Ramps and landings shall be 6 inch thick concrete.
11. ADA detectable warning plates shall be preformed and brick red in color. Acceptable products included ADA Solutions, Inc., Armor-Tile, E.J., or approved equal.
12. Irrigation overspray shall not broadcast onto City pathway or sidewalk.

CITY OF ROCHESTER HILLS STANDARD DETAIL FOR:

Pathway Details:

Hot-Mixed Asphalt Pathway Construction, Extensions and Relocations



DRAWN BY:	PLAN DATE:	REVISIONS:	12/2/2025	10/30/2024	2/8/2022	8/22/2018
S. BUCHOLZ	8/28/1996	01/12/2022	4/12/2012	2/25/2016	11/12/2019	01/25/2022
APPROVED BY:	SETH BUCHOLZ, CITY TRANSPORTATION TECHNICIAN EMIRA BARRETTE, TRANSPORTATION ENGINEER				NOT TO SCALE	SHEET 1 OF 1

ASTI ENVIRONMENTAL

A DIVISION OF PEA GROUP

■ ■ ■

10448 Citation Drive, Suite 100
Brighton, Michigan 48116

810.225.2800
asti-env.com

November 26, 2025

Chris McLeod, Planning Manager
Department of Planning and
Economic Development
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309-3033

Subject: **Grandview Development along Auburn Road,
Wetland Use Permit Review #6;
Plans dated November 21, 2025
ASTI File No. A25-0125.13**

Applicant: **Grandview**

Dear Mr. McLeod:

The above-referenced project proposes to construct seventeen residential structures on 5.565 acres of land located along Auburn Road, west of Dearborn Avenue and east of Crooks Road. The subject site includes wetland regulated by the City of Rochester Hills, but not likely regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

ASTI has reviewed the site plans, dated November 21, 2025 (Current Plans) for conformance to the Wetland and Watercourse Protection Ordinance and the Natural Features Setback Ordinance and offers the following comments for your consideration.

COMMENTS

- 1. Applicability of Chapter (§126-500).** The Wetland and Watercourse Protection Ordinance is applicable to the subject site because the subject site is not included within a site plan which has received final approval, or a preliminary subdivision plat which received approval prior to January 17, 1990, which approval remains in effect and in good standing, and the proposed activity has not been previously authorized.

2. Wetland and Watercourse Determinations (§126-531). This Section lists specific requirements for completion of a Wetland and Watercourse Boundary Determination.

- a. This review has been undertaken in the context of a Wetland and Watercourse Boundary Determination completed on the site by ASTI on August 21, 2025. Two wetlands were found on-site; Wetland A was observed in the northwest portion of the site and Wetland B was observed in the northern portion of the site.
- b. Wetland Quality Assessment
Two wetlands (Wetlands A and B) were observed on the property; their quality assessments, which were completed by ASTI on August 21, 2025, are as follows:

Wetland A

Wetland A is a young, forested wetland located in the west-central portion of the property 0.29 acres in size. The tree layer of Wetland A was dominated by the common native species of green ash and American elm. The tree layer was young and estimated to be approximately 15 years old and exhibited a canopy coverage of approximately 60-70%. The tree layer was free from invasive species. The shrub layer of Wetland A was dominated by the same common native species as the tree layer along with the non-native species of glossy buckthorn, generally in equal distribution. The herbaceous layer coverage of Wetland A was estimated to be approximately 50-60% and was dominated by the common species of fowl manna grass (*Glyceria striata*), jumpseed (*Persicaria virginiana*), and poison ivy (*Toxicodendron radicans*); no invasive species were observed in the herbaceous layer. Overall, vegetation within Wetland A was dominated by common native species (75%) with significant non-native species inclusions (25%).

Soils within Wetland A were comprised of sandy loams and appeared to be in a natural state. Observations of primary wetland hydrology indicators within Wetland A included oxidized rhizospheres on living roots. Neither ground water nor surface water was encountered within Wetland A on the day of the site inspection. These hydrological indicators suggest Wetland A retains small amounts of seasonal localized surface water runoff and from pooling precipitation. Based on review of historical aerial photography, Wetland A was likely a portion of the larger historical wetland system associated with Wetland B to the north but is now isolated and of very small size (0.29 acre). Thus, Wetland A likely only supports transient faunal use by small wildlife and birds. Based on these factors, it is ASTI's opinion that Wetland A is of medium ecological quality. However, due to its very small size and because it is isolated, it offers minimal ecological function and should not be considered a valuable natural resource to the City.

Wetland B

Wetland B is a young, forested wetland located in the northern portion of the property 1.20 acres in size on-site. The tree layer of Wetland B was dominated by the common native species of green ash, silver maple, and American elm. The tree layer was young within Wetland B and was estimated to be approximately 10-15 years in age with some larger trees approximately 20-25 years old in its northern portion. The total tree canopy coverage was approximately 70%. Invasive species were absent from the tree layer.

The shrub layer of Wetland B was dominated by the same common native species as the tree layer. Glossy buckthorn (*Frangula alnus*) was the lone invasive species observed in the shrub layer of Wetland B but only comprised approximately 10% of the total shrub layer. The shrub layer coverage varied throughout Wetland B from sparse to thick.

The herbaceous layer coverage of Wetland B ranged from sparse to thick and was dominated by the common native species of woodland sedge (*Carex blanda*), jumpseed, poison ivy, star sedge (*Carex radiata*), and fowl manna grass. No invasive species were observed in the herbaceous layer. Overall, vegetation within Wetland B was dominated by common native species (90%) with minor invasive species inclusions (10%).

Soils within Wetland B were comprised of sandy loams and appeared to be in a natural state. Observations of primary wetland hydrology indicators within Wetland B included oxidized rhizospheres on living roots. Neither ground water nor surface water was encountered within Wetland B on the day of the site inspection. These hydrological indicators suggest Wetlands B retains small amounts of seasonal localized surface water runoff and from pooling precipitation. Wetland B is connected to wetlands off-site to the east and west, which comprises an area of at least two acres in size, as estimated by ASTI through field and desktop review.

Wetland B is not within any floodplain area and, thus, does not appear to have flood storage function. Wetland B is of significant size (a minimum of two acres) and thus, warrants regulation from the City. Based on review of historical aerial photography, Wetland B is a portion of a former larger wetland system that once extended to the north, east, and west but is now surrounded by residential and urban development. As a result, Wetland B likely only supports transient faunal usage by small wildlife and birds.

Based on these factors, it is ASTI's opinion that Wetland B is of medium ecological quality and function and should be considered a medium-valuable natural resource by the City.

3. Use Permit Required (§126-561). This Section establishes general parameters for activity requiring permits, as well as limitations on nonconforming activity. This review of the Current Plans has been undertaken in the context of those general parameters, as well as the specific requirements listed below.

- a. The Current Plans state that ASTI completed a wetland delineation for the site on August 21, 2025. Wetland B is regulated by the City because it is a portion of a wetland that extends off-site that is greater than two acres in size, but less than five acres in size. Wetland A is isolated and under one acre in size and, along with its low ecological quality, does not warrant regulation by the City. On-site wetland boundaries appear to be shown accurately on Sheets 2 and 2A of the Current Plans as inspected in the field by ASTI as well as showing the individual alpha-numeric wetland flagging. This is all to ASTI's satisfaction.
- b. The table on Sheet 2A, as referenced above, indicates 18,267 square feet (0.42 acres) of Wetland B will occur from the construction of the northern portion of Sage Lane and from grading activities associated with the construction of Lots 9 and 10. Please note that during previous reviews, ASTI

deemed the construction of Sage Lane in this area of greater public good than preserving the medium quality Wetland B that will be impacted by these activities, which remains the case. Sage Lane is already partially platted and, thereby, a prudent expectation of developing this roadway exists. Based on these factors, ASTI recommends the City allow for these impacts as shown on the Current Plans.

- c. Impacts to Wetland A are not required to be shown since it is not regulated by the City.
- d. The Current Plans indicates that approximately 1,250 square feet of temporary wetland impacts will occur for the installation of a storm sewer line in the northeast portion of the site. This action qualifies for an exemption to the Wetland and Watercourse Ordinance provided that: (1) a prior written notice is given to the City Engineer and written consent is obtained from the City Mayor prior to work commencing; (2) the work is conducted using best management practices (BMPs) to ensure flow and circulation patterns and chemical and biological characteristics of wetlands are not impacted; and (3) such that all impacts to the aquatic environment are minimized. This is noted on the Current Plans to ASTI's satisfaction.
- e. To help minimize unplanned impacts to the remaining portion of Wetland B, ASTI recommends a fieldstone or boulder wall or some other City-approved permanent structure at least 18 inches in height be constructed along the boundary of the entire remaining portion of Wetland B. The Current Plans show a 4'-6" tall "Rustic Rail Fence" proposed along the remaining portion of Wetland B. Installation of this structure should help ensure no unanticipated impacts, such as mowing or clearing, occur to Wetland B in the future. Please note that the City will determine and approve the final type of structure to be installed.

4. Use Permit Approval Criteria (§126-565). This Section lists criteria that shall govern the approval or denial of an application for a Wetland Use Permit. The following items must be addressed on a revised and dated Wetland Use Permit application and additional documentation submitted for further review:

- a. A Wetland Use Permit from the City is required for this project as proposed on the Current Plans. It is likely that a Part 303 permit from EGLE is not required for any impacts to Wetlands A or B. However, the applicant should contact EGLE to confirm this assertion.

5. Natural Features Setback (§21.23). This Section establishes the general requirements for Natural Features Setbacks and the review criteria for setback reductions and modifications.

- a. Sheet 2A of the Current Plans shows Natural Features Setback areas associated with Wetland B accurately based on the updated wetland delineation. Since Wetland A is not regulated by the City, Natural Features Setback areas are not required to be shown for this wetland.
- b. The Natural Features Setback of Wetland B on-site was comprised of young upland forest approximately 10-15 years in age. This area was dominated by vegetation of the common native tree species of black walnut (*Juglans nigra*), white ash (*Fraxinus americana*), red oak (*Quercus rubra*), and cottonwood. All trees appeared healthy and exhibited a canopy coverage of approximately 60-70%. The shrub layer was dominated by the common native species of white ash

and black walnut along with the invasive species of Siberian elm (*Ulmus pumila*) and honeysuckle (*Lonicera tatarica*), generally in equal distribution. The herbaceous layer was dominated by the common native species of poison ivy, geranium (*Geranium maculatum*), graceful sedge (*Carex gracillima*), red raspberry (*Rubus idaeus*), and woodbine (*Parthenocissus inserta*). The on-site Natural Features Setback associated with Wetland B was dominated by young native woody vegetation with minor invasive species inclusions (20%) and should be considered a medium quality buffer to Wetland B.

- c. Sheet 2A of the Current Plans indicates 336 linear feet of permanent Natural Features Setback impacts associated with Wetland B will occur from grading activities associated with the construction of Sage Lane and grading activities associated with the construction of Lots 9 and 10 in the northern portion of the site. Please note that during previous reviews, ASTI deemed the construction of Sage Lane of greater public good than the preservation of the medium quality Natural Features Setback in this area; Sage Lane is already partially platted and, thereby, a prudent expectation of developing this roadway exists. This remains the case. ASTI recommends the City allow for these impacts as shown on the Current Plans.

RECOMMENDATION

ASTI recommends the City approve the Current Plans.

Respectfully submitted,

ASTI ENVIRONMENTAL



Kyle Hottinger
Wetland Ecologist
Professional Wetland Scientist #2927



FIRE DEPARTMENT
Todd Gary, Fire Chief

From: Vince Foisy
To: Planning Dept.
Date: November 25, 2025
Re: Grandview Site Condos/Auburn - Sec #28 - Rev #5 File # 02-29.2 & JRMFD2023-0002.

APPROVED

The street names submitted on the drawings received from Planning on 11/25/2025 have been reviewed and there are no noted changes to the approved plan of 04/16/2024

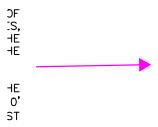
If you have any further questions please contact me at 248.841.2709

VINCENT B. FOISY
Communication Systems Administrator

cc: File
h:\data\

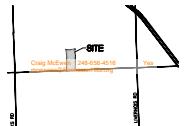
Reviewed plans 120825.pdf Markup Summary

Arrow (1)



Subject: Arrow
Author: Emira Barrette
Date: 12/2/2025 9:29:49 AM
Status:

Building Department (1)



Subject: Building Department
Author: CMcEwen
Date: 11/25/2025 7:40:33 AM
Status:

Engineering Department (1)



Subject: Engineering Department
Author: Jason Boughton
Date: 11/25/2025 2:02:10 PM
Status:

Fire Department (1)



Subject: Fire Department
Author: Joshua
Date: 12/5/2025 3:09:51 PM
Status:

Group (27)



Subject: Group
Author: macdonaldj
Date: 11/24/2025 10:52:41 AM
Status:

City of Rochester Hills Planning & Economic Development



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

WP



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

NFSM



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

PCM



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

LB



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

COVER SHEET
EXISTING CONDITIONS
WETLANDS
WATER SURVEY
TREE SURVEY
DRAINAGE PLAN
UTILITY PLANS
GRADE PLAN
CONCEPTUAL LAYOUT
SUBDIVISION
TYPICAL DETAILS
SITE PLAN



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

Tree Removal Permit

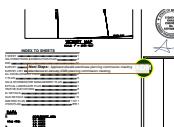
EXISTING CONDITIONS
WATER SURVEY
WETLANDS
WATER SURVEY
TREE SURVEY
DRAINAGE PLAN
UTILITY PLANS
GRADE PLAN
CONCEPTUAL LAYOUT
SUBDIVISION
TYPICAL DETAILS
SITE PLAN



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:14 AM
Status:

LIP

EXISTING CONDITIONS
WATER SURVEY
WETLANDS
WATER SURVEY
TREE SURVEY
DRAINAGE PLAN
UTILITY PLANS
GRADE PLAN
CONCEPTUAL LAYOUT
SUBDIVISION
TYPICAL DETAILS
SITE PLAN



Subject: Group
Author: C.McLeod
Date: 12/1/2025 11:42:31 AM
Status:



Subject: Group
Author: C.McLeod
Date: 12/1/2025 12:31:34 PM
Status:

LB



Subject: Group
Author: C.McLeod
Date: 12/1/2025 12:32:46 PM
Status:

WP



Subject: Group
Author: C.McLeod
Date: 12/1/2025 12:32:49 PM
Status:

NFSM



Subject: Group
Author: C.McLeod
Date: 12/1/2025 12:41:31 PM
Status:

Tree Removal Permit



Subject: Group
Author: C.McLeod
Date: 12/8/2025 12:46:10 PM
Status:

REVISION: Revision #6

IF

• All applications for subdivision proper print
• Only 1 application at the same time.
• Applications for subdivisions require subdivision
• Subdivisions before and after the new service.

2428 Oldpaw Trail
Tucson, AZ 85745
Ph: (520) 746-6333
email: info@azplanners.org
www.azplanners.org



Subject: Group
Author: C.McLeod
Date: 12/8/2025 12:47:17 PM
Status:

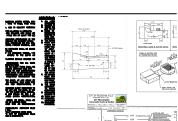
REVISION: Revision #6



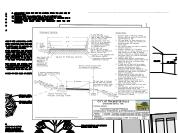
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Author: C.McLeod
Date: 12/8/2025 12:47:23 PM
Status:

REVISION: Revision #6

Image (3)



Subject: Image
Author: Emira Barrette
Date: 12/2/2025 9:29:03 AM
Status:



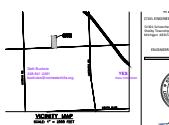
Subject: Image
Author: Emira Barrette
Date: 12/2/2025 10:09:27 AM
Status:

Use the updated Pathway Detail (recent changes to the notes)



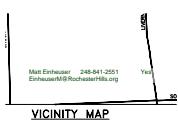
Subject: Image
Author: Joshua
Date: 12/5/2025 3:09:32 PM
Status:

Jenny McGuckin - YES (1)



Subject: Jenny McGuckin - YES
Author: Seth Bucholz
Date: 12/4/2025 11:47:40 AM
Status:

Natural Resources (1)



Subject: Natural Resources
Author: Matt Einheuser
Date: 12/3/2025 1:48:55 PM
Status:

Planning Department (13)



Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:28:01 PM
Status:

The Mixed Residential Overlay requires a minimum of ten (10) acres. This can be modified by the Planning Commission pursuant to Section 138-6.507



Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:30:43 PM
Status:

Applicant will need to work with abutting resident to modify driveway that currently extends onsite

Subject	Planning Department
Author	C.McLeod
Date	12/1/2025 12:32:17 PM
Status	

Landscape Bond = \$153,412.00 plus applicable fees

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:32:17 PM
Status:

Landscape Bond = \$153,412.00 plus applicable fees



Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:32:30 PM
Status:

Landscape Bond = \$153,412.00 plus applicable fees

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:35:02 PM
Status:

336 linear feet of natural features setback modification.

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:39:53 PM
Status:

18,267 square feet of permanent wetland impact

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:40:24 PM
Status:

336 linear feet of natural features setback modification.

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:40:41 PM
Status:

18,267 square feet of permanent wetland impact

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:44:22 PM
Status:

137 regulated trees removed, 2 specimen trees removed - 139 tree replacement credits required.

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 12:44:32 PM
Status:

137 regulated trees removed, 2 specimen trees removed - 139 tree replacement credits required.

Subject: Planning Department
Author: C.McLeod
Date: 12/1/2025 1:01:11 PM
Status:

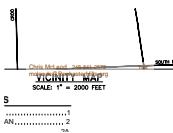
'All signs must meet the requirements of the City and be approved under separate permits issued by the Building Department.'

Subject: Planning Department
Author: C.McLeod
Date: 12/8/2025 12:42:12 PM
Status:

Assessing

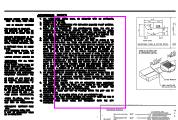
Yes





Subject: Planning Department
Author: C.McLeod
Date: 12/8/2025 12:42:23 PM
Status:

Rectangle (1)



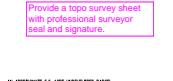
Subject: Rectangle
Author: Emira Barrette
Date: 12/2/2025 9:29:06 AM
Status:

Traffic (8)



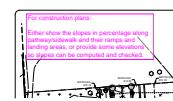
Subject: Traffic
Author: Keith
Date: 11/24/2025 11:53:20 AM
Status:

Per City of RH Engineering Design Standards, asphalt roads shall be nine inches (9") deep strength asphalt over six inches (6") of 21AA aggregate base coarse materials (crushed limestone or crushed concrete). The nine inches (9") shall consist of one and a half (1.5") of HMA 5EML (wearing), one and a half inches (1.5") HMA 4EML (leveling), two and a half inches (2.5") HMA 4EML (leveling), three and a half inches (3.5") HMA 3EML. Extend six inches (6") base coarse material to one foot (1') beyond edge drain.



Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 9:25:29 AM
Status:

Provide a topo survey sheet with professional surveyor seal and signature.



Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 9:26:51 AM
Status:

For construction plans:

Either show the slopes in percentage along pathway/sidewalk and their ramps and landing areas, or provide some elevations so slopes can be computed and checked.

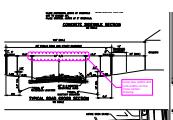


Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 9:29:10 AM
Status:

Use the standard below for mountable C&G



Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 9:29:35 AM
Status:



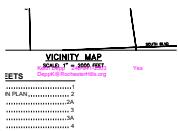
Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 9:36:35 AM
Status:

show lane widths and curb widths on this cross section drawing.



Subject: Traffic
Author: Emira Barrette
Date: 12/2/2025 10:10:08 AM
Status:

Add any crosswalk marking details here.



Subject: Traffic
Author: Keith
Date: 12/3/2025 7:49:56 AM
Status:

Underground Utilities (1)



Subject: Underground Utilities
Author: Keith
Date: 12/2/2025 2:15:42 PM
Status:

Add revised Pathway detail