



June 5, 2024

# Westwood Lane Drain Board of Determination

# Westwood Lane Drain

- The existing storm water drain system is without authorized local and county governmental jurisdiction and administrative, procedural, and funding mechanisms to address current/future needs for maintenance and improvements
- Application for Laying Out and Designating a Drainage District completed by Holland Charter Township on February 15, 2024, under Chapter 3 of the Michigan Drain Code of 1956.
- Petition to Locate, Establish, and Construct a County Drain submitted by Holland Charter Township on February 15, 2024, under Chapter 4 of the Michigan Drain Code of 1956.
- Michigan Drain Code requires a Board of Determination Meeting

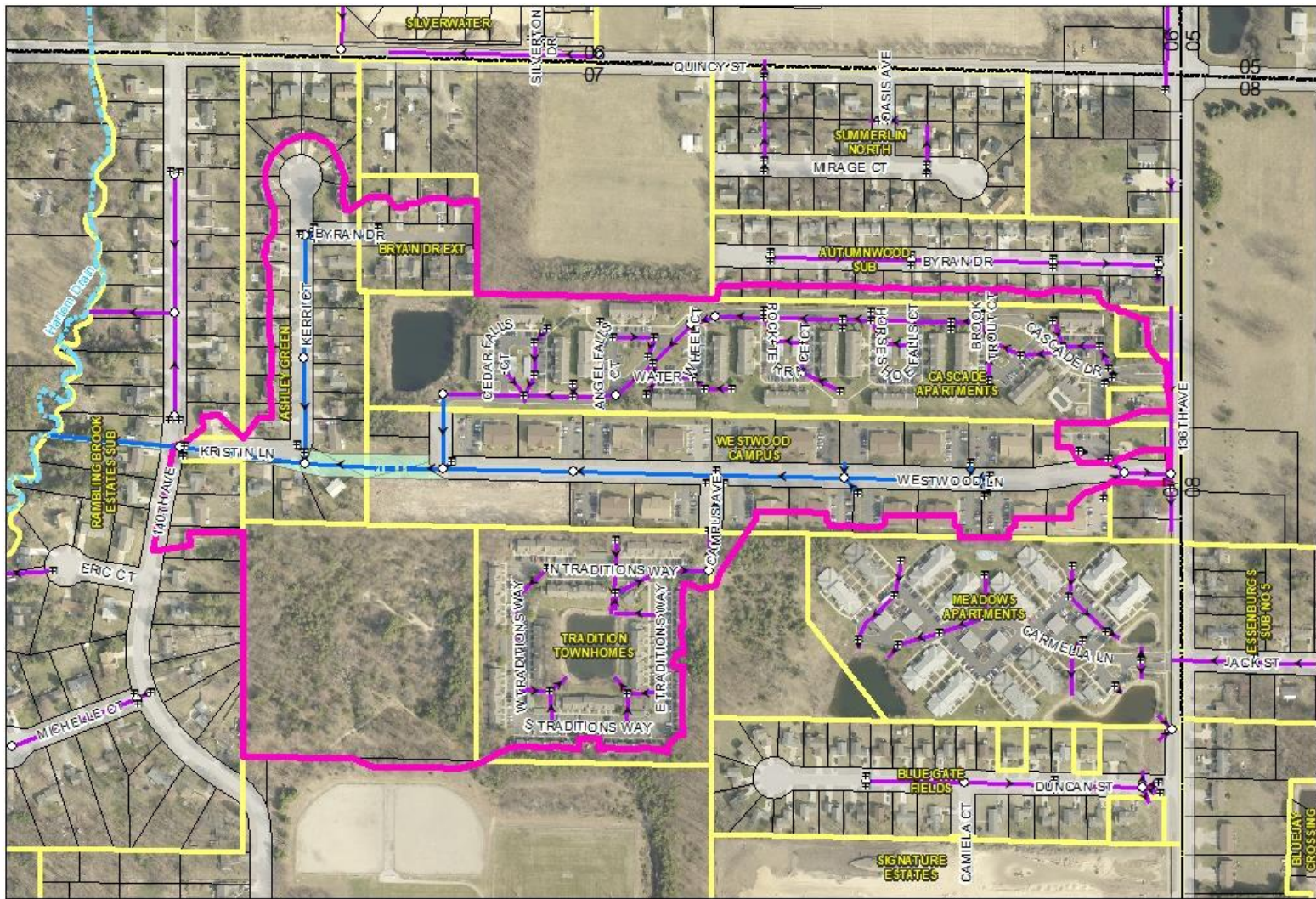


# Westwood Lane Drain

## Preliminary Engineering

- Review utility record drawings and plat maps
  - Rambling Brook Estates Sub (1972)
  - Westwood Campus Plat (1987)
  - Ashley Green Plat (1988)
  - Tradition Townhomes/Pine Grove Villas (1995)
  - Autumnwood Sub (1996)
  - Bryan Extension (1999)
  - Cascade Apartments (2002)
  - 136<sup>th</sup> Avenue Apartments (2023)
  - Westwood Lane Duplexes (2024)
  - Future 140<sup>th</sup> Ave Development (?)
- Delineate the drainage district (watershed) boundary using county GIS contour data and aerials
- Visit site to locate drain infrastructure and confirm drainage patterns





SCALE: 1" = 350'

LEGEND

- WESTWOOD LANE DRAINAGE DISTRICT
- WESTWOOD LANE DRAIN - STORM SEWER
- WESTWOOD LANE DRAIN - OPEN DRAIN
- STORM SEWER
- OTHER WATER COURSES
- CATCH BASIN
- MANHOLE
- EASEMENT
- SECTION BOUNDARY
- RIGHT OF WAY

OTTAWA COUNTY WATER RESOURCES COMMISSIONER

SECTION 7  
 HOLLAND CHARTER TOWNSHIP  
 WESTWOOD LANE DRAIN  
 DRAINAGE DISTRICT AND ROUTE AND COURSE  
 Prein & Newhof  
 2230 858



**Table 1 – Minimum Required Stormwater Standards**

Standard/Where Required	Criteria
<p><b>Water Quality</b> “first flush” All sites.</p>	<p>Treat the runoff generated from 1 inch of rain over the project site (i.e. the 90% annual nonexceedance storm) through BMPs designed to reduce post-development TSS loadings by 80%, or achieve a discharge concentration not to exceed 80 mg/L.</p>
<p><b>Channel Protection</b> Surface water discharges; not required for direct discharge to Lake Michigan, Lake Macatawa and Spring Lake.</p>	<p>The post-development runoff rate and volume shall not exceed the pre-development rate and volume for all storms up to and including the 2-year, 24-hour storm. Retention of the volume increase is required.</p> <p>Where site conditions preclude infiltration (onsite and offsite), an alternative approach may be allowed consistent with the flowchart in Part 1:</p> <p style="padding-left: 40px;">Extended Detention of the 2-year, 24-hour storm for a period of 24 hours resulting in a drawdown time no greater than 72 hours. The resulting peak discharge shall be no greater than the existing 1-year peak discharge.</p>
<p><b>Flood Control</b> All sites; unless exception is allowed.</p>	<p><u>Collection and Conveyance:</u> Design storm sewers and swales for the 10-year storm, and open channels for the 25-year storm.</p> <p><u>Detention and Retention:</u> Store runoff from the 100-year storm with a maximum release rate of 0.13 cfs per acre.</p> <p><u>Overflow Routes for Extreme Flood:</u> Identify overflow routes and the extent of high water levels for the 100-year flood to ensure no adverse impacts offsite or internal to the site. Where overland flow routes do not exist:</p> <ol style="list-style-type: none"> <li>1. Protect buildings with redundant storm sewer system sized for the 100-year storm; and</li> <li>2. Increase size of detention and retention basins to store two (2) times the flood control volume.</li> </ol>

6. **Adequate Outlet.** The design maximum release rate, volume or concentration of stormwater discharged from a site shall not exceed the capacity of the downstream stormwater infrastructure or cause impairment to the offsite receiving area.

<https://www.miottawa.org/Departments/Drain/devapproval.htm>

**OTTAWA COUNTY  
WATER RESOURCES COMMISSIONER**

**SITE DEVELOPMENT RULES**

Procedures and Design Standards for Stormwater Management

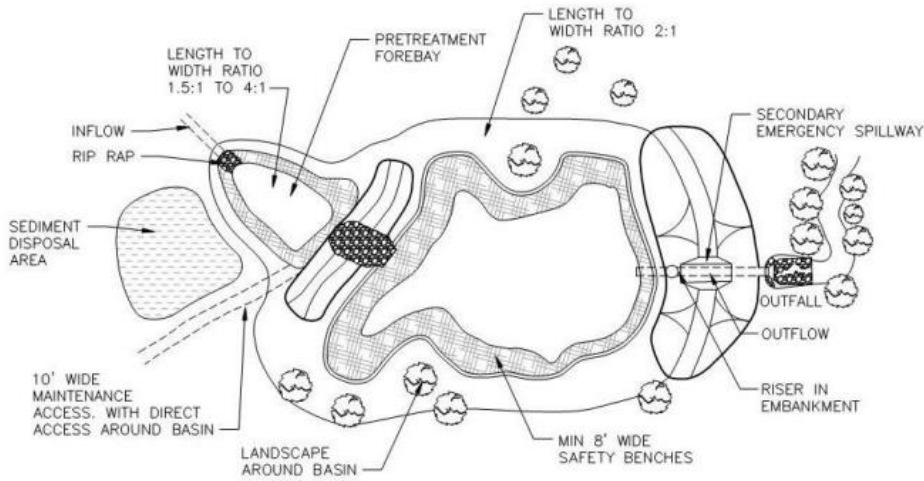


Ottawa County  
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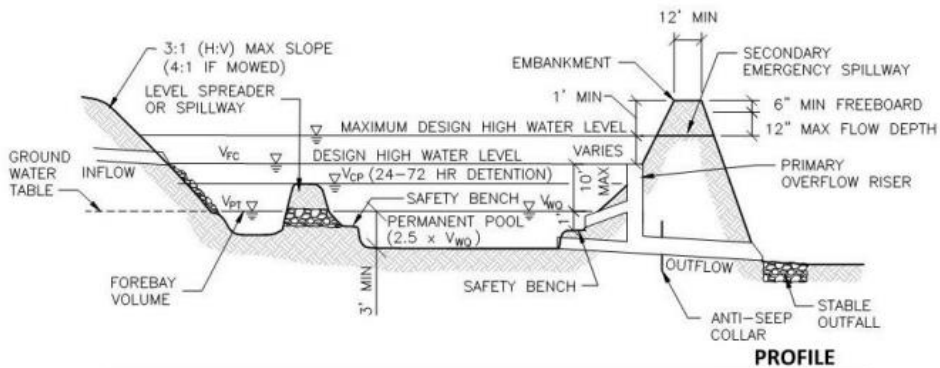
Joe Bush  
Ottawa County Water Resources Commissioner  
12220 Fillmore, Room 141  
West Olive, MI 49460

January 1, 2021

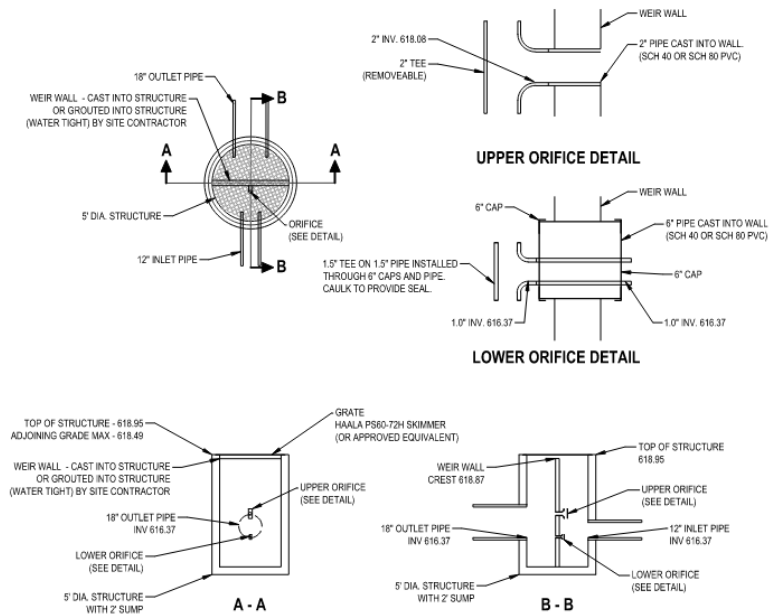
# WET DETENTION BASIN (WET POND)



**PLAN VIEW**



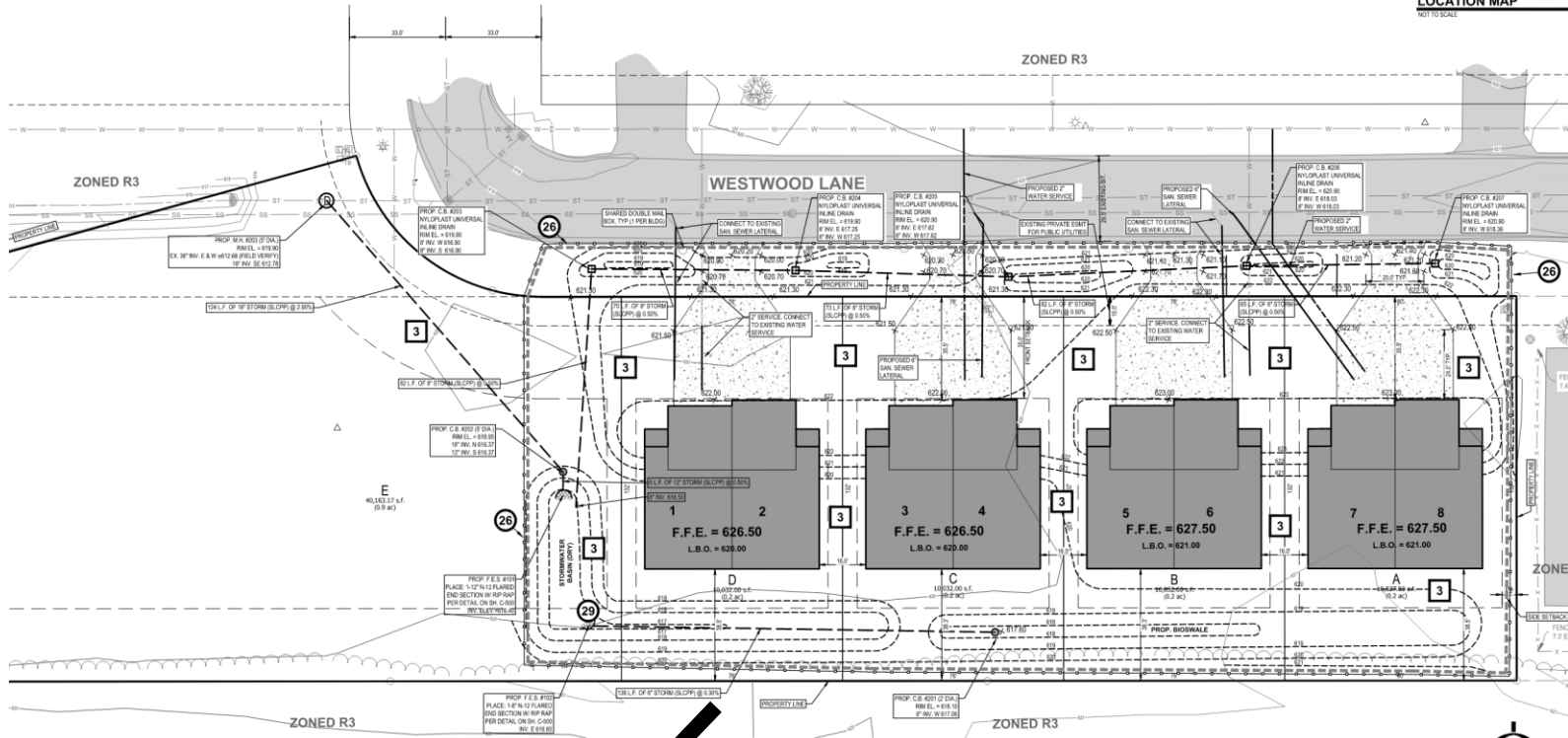
FINAL OUTLET CONFIGURATION MUST BE DESIGNED TO PREVENT CLOGGING



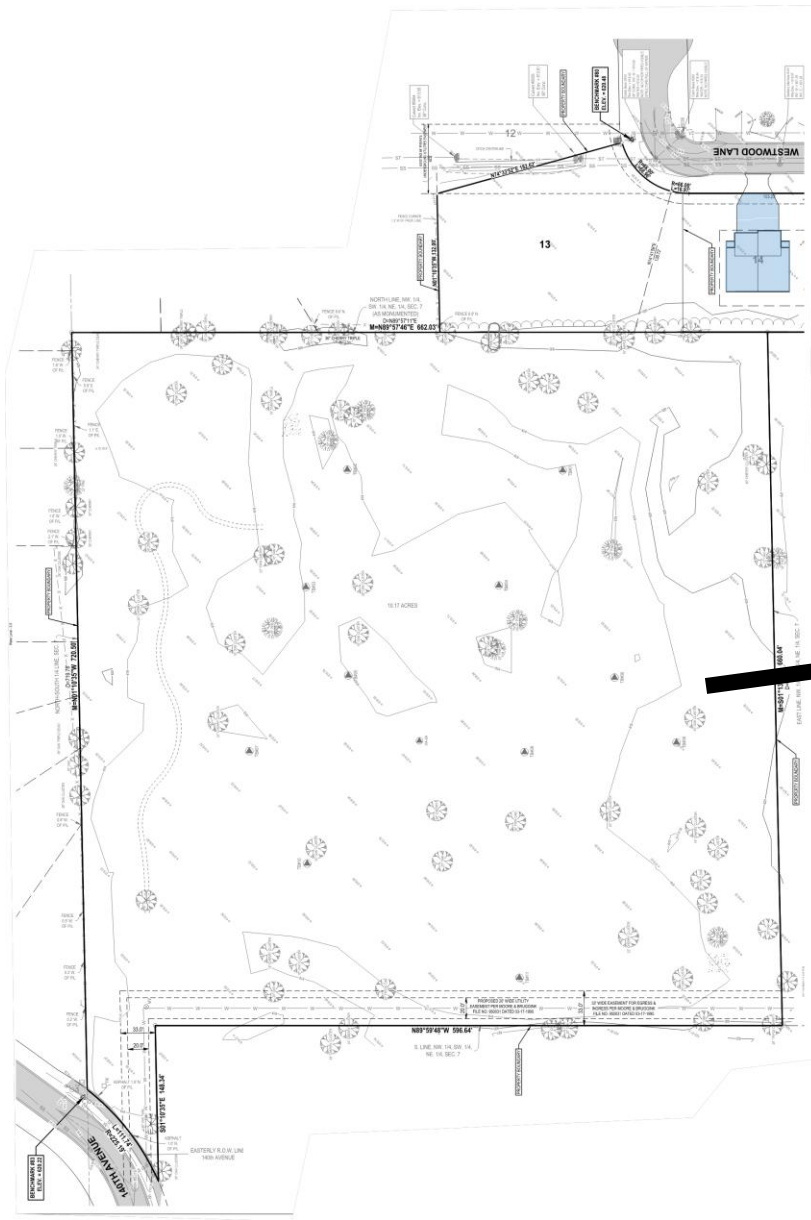
**OUTLET CONTROL STRUCTURE DETAIL**

N.T.S.









Future Developments

Prein & Newhof





Culvert opening on west end of open drain.



Culvert opening on east end of open drain, obstructed by debris.

Photo of ditch conditions – West culvert opening visible in picture.





Landscaping and grass near manhole.







Westwood Lane Drain  
outlet into Harlem Drain



Stream downstream of  
outlet





## Westwood Lane Drain – BOD Conclusion

- Public Testimony
- Board to determine necessity of petition based on public health, welfare, and/or convenience after hearing testimony
  - If deemed necessary by the board, then the existing system will become a county drain.
  - If deemed not necessary by the board, then no further action will occur.



# Westwood Lane Drain – Next Steps

- If the drain is deemed necessary by the board and no drainage issues are brought up during public testimony or post public testimony, then...
  - Holland Charter Township, Ottawa County, and the Ottawa County Road Commission pay all costs of establishing the drain.



## Westwood Lane Drain – Next Steps

- If the drain is deemed necessary by the board and during public testimony or following public testimony OCWRC is made aware of drainage issues with the existing system, then...
  - Project design will begin and easement acquisition, if necessary.
  - Upon completion of design, the project will let to contractors for bids. This will be a public bid.
  - After project is bid and project costs are determined, a Day of Review will be held to review apportionments.
  - Construction would then commence on the project.
  - Costs of project would be assessed to Holland Township at large, Ottawa County and Ottawa County Road Commission and parcels within the district.





# Westwood Lane Drain – Future

- If drainage issues occur in the future, then...
  - Drain Office can perform routine maintenance up to \$5,000 per mile of drain (per Drain Code) without a petition
  - If the extent of maintenance exceeds the \$5,000 per mile of drain in a year, then a maintenance resolution from the Township can be signed to exceed the maintenance limit without the need for a petition.
  - The final option is a new petition would be needed by the Township, or the residents of the drainage district to maintain the county drain
  - Assessments for all future projects be assessed to Holland Township at large, Ottawa County, Ottawa County Road Commission, and parcels within the district.

