

2021 Delaware County Engineer Annual Township Meeting

November 15, 2021



Agenda

11:30 Registration

11:45 Pledge, Introduction & Elected Official Welcome

12:30 County Engineer Presentation

What's New

County Engineer's Services to Townships

Township Road Maintenance Information

Development Discussion

1:20 Questions

1:30 Adjourn



What's New

New County Office Campus

ODOT Route 23 Connect Study

Federal Infrastructure Funding News

State Infrastructure Funding News

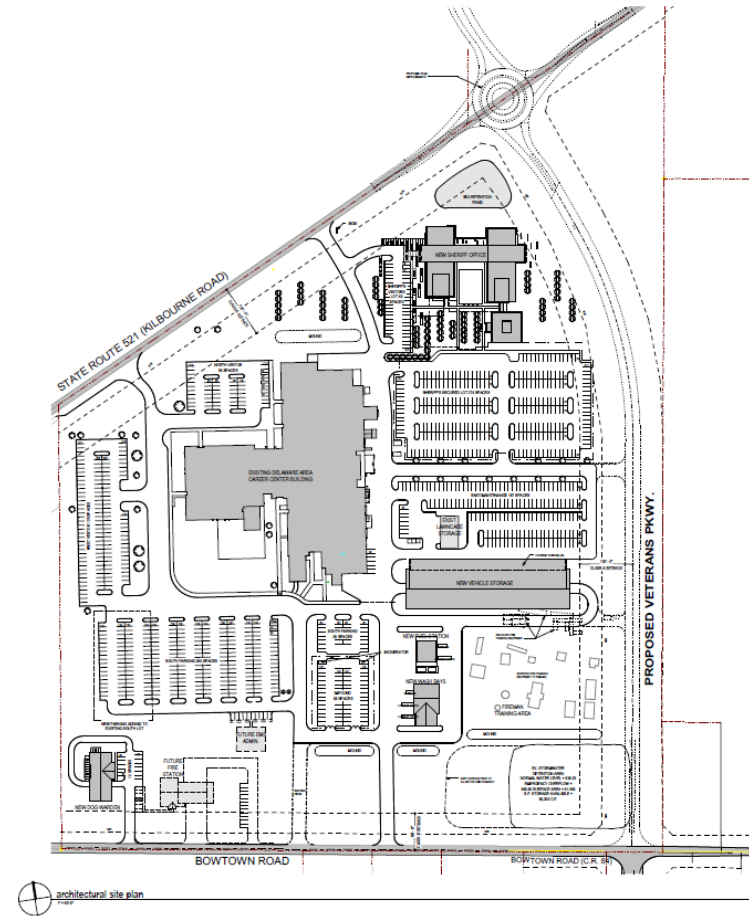


New County Office Campus

The new Byxbe Campus at the old DACC North Campus.

Move-in planned for 2023:

- County Engineer
- Regional Sewer District (Sanitary)
- Building Safety (Code Compliance)
- Regional Planning
- Soil and Water Conservation District
- OSU Extension Office
- County Sheriff



ODOT Route 23 Connect Study

PROJECT PURPOSE

The purpose of this project is to enhance regional connectivity and mobility by creating a free-flowing connection between Waldo and I-270.

PROJECT NEEDS

Reduce Travel Times

- Between Waldo and I-270

Improve Travel Time Reliability

- So people can count on consistent travel times during particular periods of each day (i.e. each morning commute)

Improve Safety

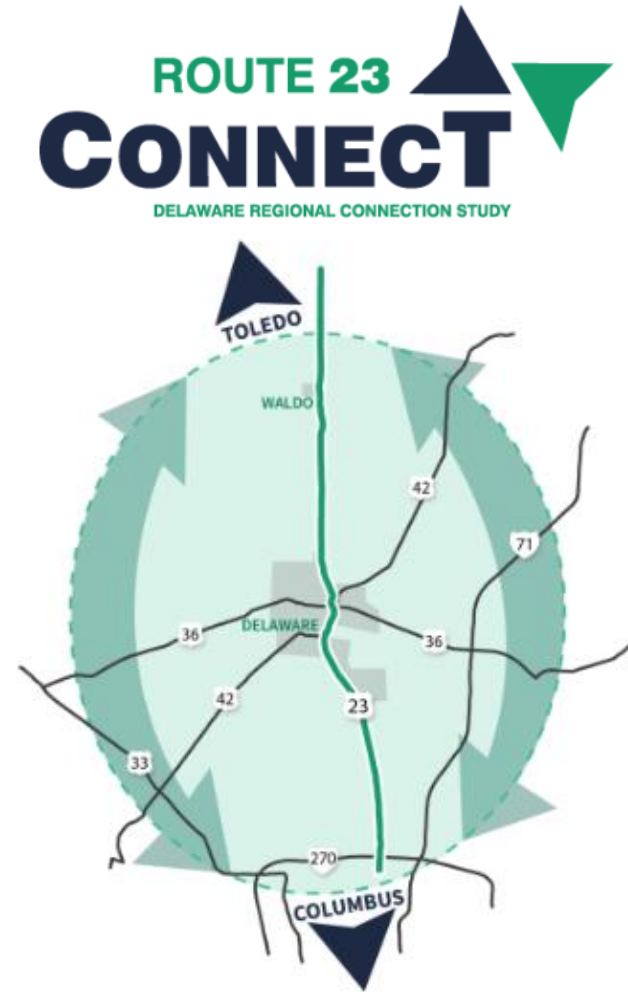
- For local and regional trips

Reduce Congestion

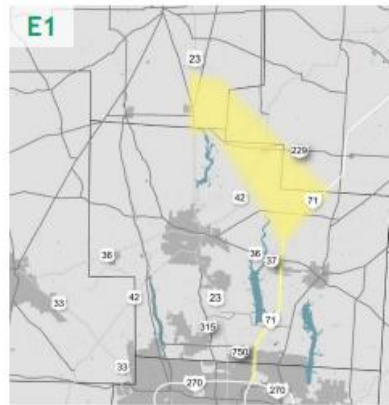
- For local and regional trips

Be Consistent with Local Community Goals

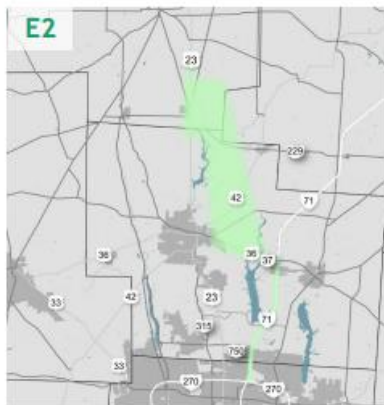
- Reduce diversion of traffic to local roads



EASTERN CONNECTION (3 CONCEPTS)



- New freeway from U.S. 23 to I-71
- Use I-71 to connect to I-270

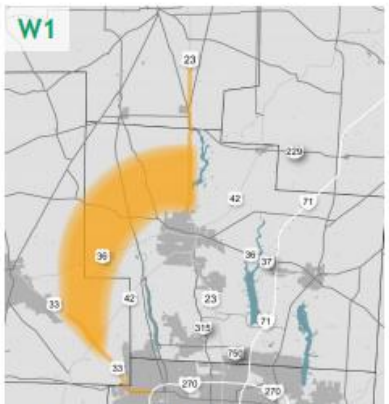


- New freeway from U.S. 23 to U.S. 36/ SR 37
- Use U.S. 36/SR 37 to connect to I-71
- Use I-71 to connect to I-270

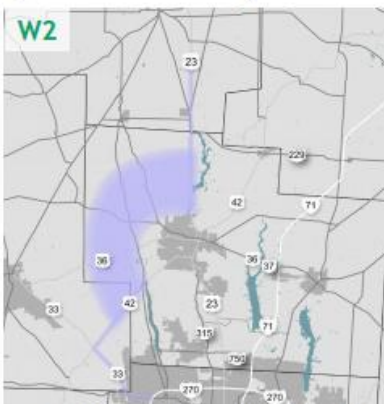


- Use U.S. 23 to SR 229
- New freeway from SR 229 to I-71
- Use I-71 to connect to I-270

WESTERN CONNECTION (2 CONCEPTS)

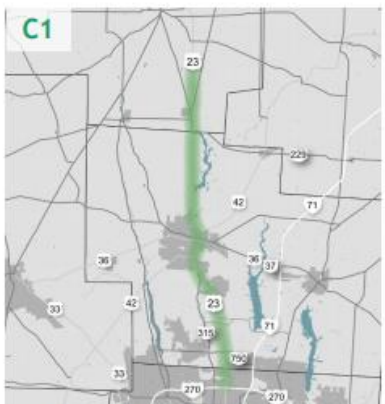


- New freeway from U.S. 23 to U.S. 33
- Use U.S. 33 to connect to I-270



- New freeway from U.S. 23 to U.S. 42
- Upgraded U.S. 42 to U.S. 33
- Use U.S. 33 to connect to I-270

UPGRADED U.S. 23



- 11 new/modified interchanges
- Limited access w/ service roads
- Additional through lanes



Federal Infrastructure Funding

Infrastructure Investment and Jobs Act of 2021

- 5-Year Surface Transportation Funding Reauthorization
- New Federal grant programs administered by US DOT
- **\$110 billion** in new road and bridge funding

What does this mean for counties and townships?

- **20-25% additional funding** through current ODOT-administered programs over the next 5 years
- Some new opportunities for grant applications directly to Federal Highway Administration (US DOT)



Federal Infrastructure Funding

American Rescue Plan Act of 2021

Coronavirus State and Local Fiscal Recovery Funds

Can these funds be used for roads?

- Yes, but... only to the extent of the estimated reduction in revenue due to the COVID-19 emergency

Senate Bill 3011 / House Bill 5735

- Allows each non-entitlement unit, county or city to use the greater of \$10 million or 30% of ARP payments for most infrastructure types until September 30, 2026
- S.3011 passed October 19, 2021 by unanimous consent
- Companion legislation (H.R.5735) currently in the House



State Infrastructure Funding

ODOT 2021 Township Stimulus Program

- \$8 million of federal funds being provided to townships
- Maximum \$250,000 grant (*as few as 32 statewide awards*)
- Applications due **November 19, 2021**
- Maximum score for our applications = **60/100**

Category	Project Type that Category is Used For	Maximum Points	Weight Factor	Total Points	Max Points for Townships In Delaware Co.
Economic Health	All Projects	10	2	20	0
Annual Average Daily Traffic	All Projects	10	1	10	10
Roadway Functional Classification	All Projects	10	1.5	15	15
Letter of Support from County Engineer	All Projects	5	1	5	5
Project within existing ROW and proof of said ROW	All Projects	5	1	5	5
Implemented permissive licensing fees	All Projects	5	1	5	5
Qualified Opportunity Zone	All Projects	10	2	20	0
Sufficiency Rating	Culverts	10	1	10	10
Culvert Condition Rating	Culverts	10	1	10	10
Pavement Condition Rating	Roadway	10	1	10	10
Regional Connector	Roadway	10	1	10	10



State Infrastructure Funding

OPWC Programs (SCIP, LTIP & Small Government)

- ~\$11 million available for grants in Round 36 (SFY 2023)
- Covers up to 90% of project cost but maximum points are achieved when grant request is <75%
- Typically maximum award is \$500,000

Other considerations for maximum points:

- Reconstruction and safety projects score higher than resurfacing
- Roads currently in poor condition score higher
- Projects on busy roads (high ADT) score higher
- Projects ready to construct score higher
- Smaller grant requests score higher



State Infrastructure Funding

For Paths and Trails:

ODNR Clean Ohio Trail Fund & Recreational Trail Program

COTF provides up to 75% of project cost (\$500,000 max)

- \$6.25 million provided annually statewide

RTP provides up to 80% of project cost (\$150,000 max)

- \$1.5 million provided annually statewide
- This is a federal program and requires additional environmental study documentation

State Capital Bill

Contact your state legislators

- Funding appropriated in capital bill and assigned to ODNR for oversight of grant



County Engineer Duties Relating to Townships

Request for Engineering Assistance (REA)

Roadway Grant Assistance Program (RGAP)

Road Salt and Cooperative Purchasing Contracts

Annual Road Improvement Program



County Engineer Duties

O.R.C. § 5543.01 General Powers and Duties of Engineer

County Engineer shall have general charge of...

- Construction, reconstruction, resurfacing or improvement of roads by **boards of township trustees**

County Engineer shall supervise the construction, reconstruction, resurfacing and improvement of...

- Public roads by **boards of trustees** under 5571.01, 5571.06, 5571.07, 5571.15, 5573.01 to 5573.15, 5575.02 to 5575.09, and 5577.01.



Request for Engineering Assistance

Form REA
Revised November 2014
Page 1

OFFICE USE ONLY

REQUEST FOR ENGINEERING ASSISTANCE



Delaware County Engineer's Office
50 Channing Street
Delaware, Ohio 43015

Date: _____ Township: _____

The Board of Township Trustees hereby requests the County Engineer's engineering assistance as follows:

Road Name: _____ Road #: _____

Location: _____ miles _____ N _____ S _____ E _____ W _____ of _____ (nearest intersection)

or address # _____ or between _____ and _____ (roads).

ROADWAY/TRAFFIC SAFETY:

- ☐ Speed limit study
- ☐ Intersection traffic study
- ☐ Sight distance study
- ☐ Guardrail or barrier study

CULVERTS:

- ☐ Culvert safety inspection
- ☐ Culvert hydraulic analysis (pipe sizing)
- ☐ Force-account estimate
- ☐ County construction of township culvert

ROADWAY PLANNING AND MAINTENANCE:

- ☐ Pavement resurfacing or repair (attach road list)
- ☐ Roadway widening or other improvement study
- ☐ Sidewalk or curb ramp study
- ☐ OPWC funding application

DITCH/DRAINAGE:

- ☐ Ditch maintenance or cleanout

OTHER (describe below)

Include a brief description of what the Township is requesting. If there are multiple locations, list them below:

County Engineer is asked to respond to the following person who will be the point of contact in reference to this request:

Name _____ Title _____

Address _____ City _____ Zip _____

Phone _____ Fax or email _____

Township Trustee _____ Date _____

Township Trustee _____ Date _____

Township Trustee _____ Date _____

Township Administrator* _____ Date _____

A minimum of two Trustee signatures is required.

* A copy of resolution requesting engineering assistance by the Board along with this form signed by Township Administrator is acceptable.

Mail, email or fax the signed and completed form to:

Delaware County Engineer's Office
Attn: Doug Riedel, P.E.
50 Channing Street
Delaware, OH 43015
Fax: 740-833-2399
Email: riedel@co.delaware.oh.us

See instructions on the following pages for more information

Please submit a Request for Engineering Assistance (REA) form to Doug Riedel

Form signed by majority of board of trustees

-or-

Signed by Township Administrator with consent of majority of board of trustees



Roadway Grant Assistance Program

Roadway Grant Enhancement Program (RGAP) established by the County Commissioners September 9, 2019

3:1 match for local contribution by city, village or township with majority of its population in Delaware County

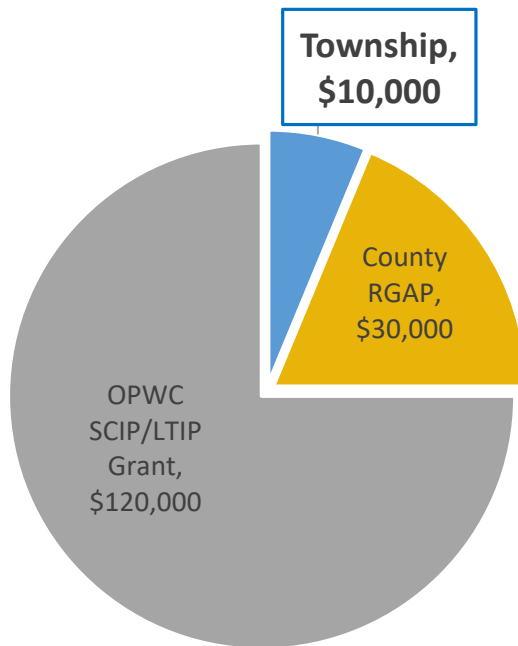
RGAP grants are capped at **\$150,000 per agency, per year**



Roadway Grant Assistance Program

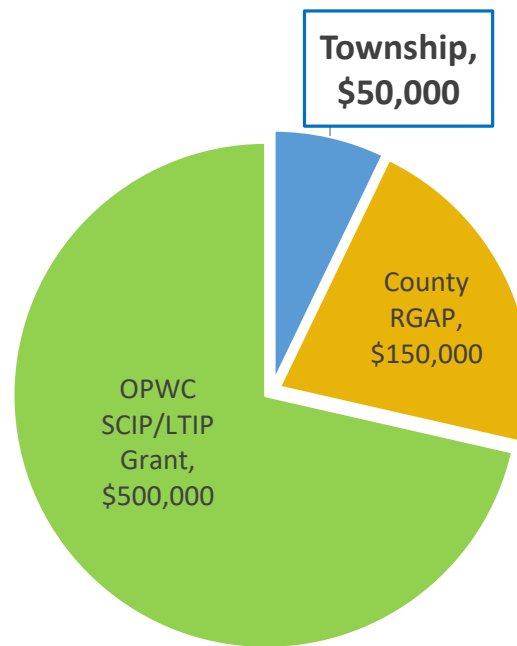
Example 1:

\$160,000 resurfacing project



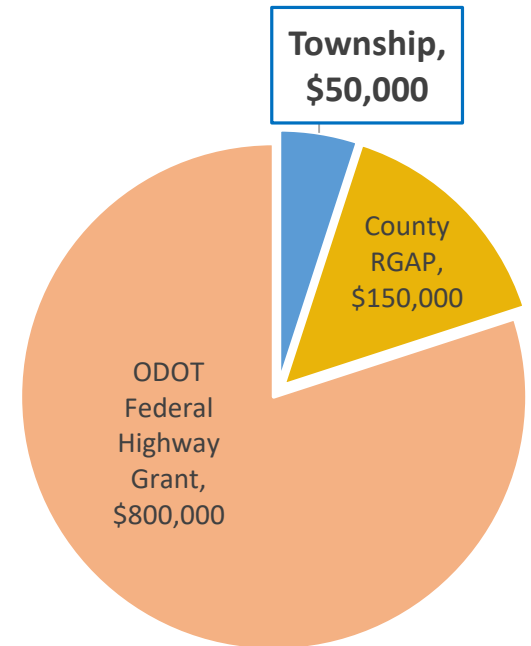
Example 2:

\$700,000 pavement reconstruction



Example 3:

\$1.0 million road widening



Road Salt

Salt to townships at **\$65.54/ton** through April 2022

Supplier: American Rock Salt

10,500+ tons in inventory as of November 1, 2021

Delaware – US Route 42 North	4,500± tons
Berkshire Township – Rome Corners	3,000± tons
Liberty Township – Sawmill Parkway	3,000± tons

County under contract through ODOT to purchase
5,000 additional tons this winter



Development Discussion

Counties and Townships vs. Cities

Platting vs. Zoning

What Can Be Required of Developers?

Traffic Studies for New Developments



Counties and Townships vs. Cities

Counties are governed by statute under Title III of the ORC.

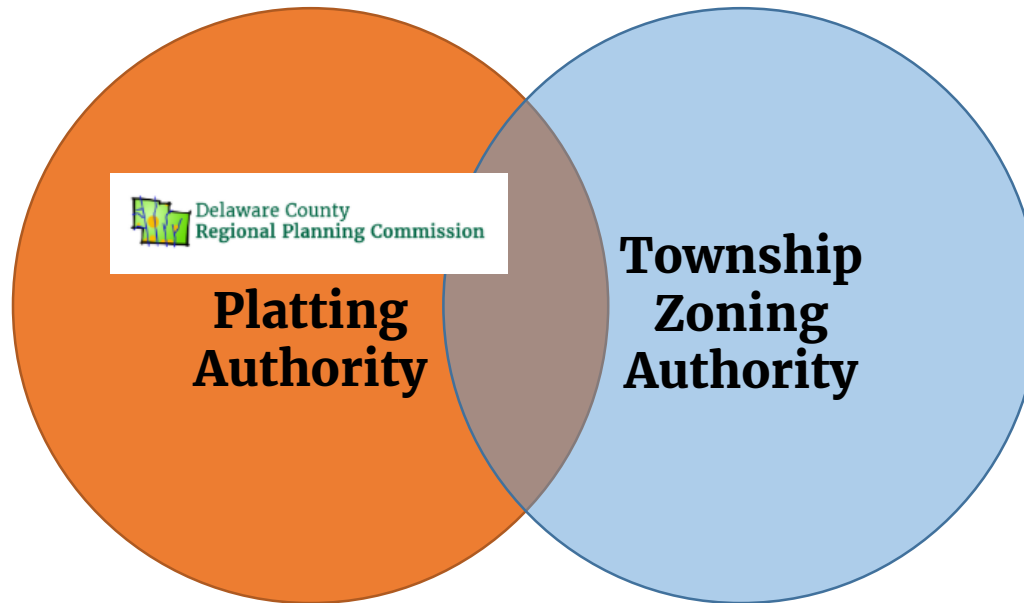
Townships are governed by statute under Title V of the ORC.

Counties and townships can **ONLY** perform the functions authorized under Ohio Law.

By comparison, municipal corporations can adopt any law by ordinance that doesn't conflict with Ohio Law.



Platting vs. Zoning



For cities and villages: Platting and zoning approvals usually **combined** under a Planning and Zoning Department.

For counties and townships: **Separate** statutory authority for platting and zoning.

Platting vs. Zoning

What is Platting?

In the unincorporated areas, **county planning commissions** or **regional planning commissions** created pursuant to Chapter 711 & 713 of the ORC can regulate “**platting**” or subdivision of land, meaning the division of any tract into a lot under 5 acres.

A **plat** is simply a map showing property lines which becomes the official legal description for any newly created lots within those boundaries.



Platting vs. Zoning

What is Zoning?

Townships are authorized under Chapter 519 of the ORC to regulate by resolution...

- Location, height, bulk, number of stories and size of buildings.
- Setbacks and uses of buildings.
- Uses of land for trade, industry, residence, recreation or other purposes.



Zoning vs. Platting

What can a planning commission regulate through platting?

- Requirement to construct streets or other improvements to serve new building lots.
- Arrangement of streets and other public improvements.
- Open spaces for traffic, utilities, access for firefighting apparatus, recreation, light, air and avoidance of congestion of population...



Zoning vs. Platting

County Engineer's Duties Relating to Platting?

O.R.C. Section 713.26

County Engineer **shall** assist the planning commission within the scope of county engineer's statutory duties involving roads, bridges, drainage and land surveying...

- Street design and construction
- Traffic studies
- Drainage, erosion and sediment control
- Subdivision plat accuracy



What Can Be Required of Developers?

Scope of local authority relating to requiring improvements (“exactions”) as a condition of platting has been litigated many times.

In general, any improvement required by a local agency as a condition of platting/subdividing must...

- Have essential nexus to a legitimate government interest (e.g. public safety, traffic flow, etc.)
- Provide some benefit to the platted lots
- Be roughly proportional to the projected impact of the development, both in nature and extent



Traffic Studies for New Developments

When are traffic studies required?

- Developments within platted subdivisions
- New roads or driveways on existing public roads

Who prepares the study?

- The developer or owner of the property
- Often started pre-zoning during “due diligence” phase

Who reviews the study?

- County Engineer staff or county’s engineering consultant

What standards and methodology are used?

- DCEO, like most agencies, uses Institute of Transportation Engineers (ITE) trip generation methodology



Traffic Studies for New Developments

What can be required?

- Pavement widening and setting back the ditch along existing road frontage
- Turn lanes in/out of the development
- Upgrades to the adjacent road and nearest major intersection(s)
 - May be in the form of a proportional contribution toward a planned future county or township upgrade.
- Limited access (i.e. no driveways) on certain high traffic streets inside the development –
 - Examples: Walker Wood Blvd., Highland Lakes Ave., Mount Royal Ave.



Traffic Studies for New Developments

What can't be required?

Upgrades where there is no measurable degradation caused by the development or the upgrade isn't proportional and/or directly attributable to the impact:

- Examples: Can't require a small subdivision to build a new 4-lane highway, or can't stop a subdivision because it creates a small additional delay at a nearby intersection

“Impact fees” or a **fixed-fee** for new trips added to the road network (no enabling legislation in the ORC):

- Some states do have legislation allowing impact or “capacity fees” based on number of new trips from a development

Prohibition of access:

- Unless access right has already been purchased by the public the development must be given road access of some kind



Summary

Local agencies walk a fine line with development exactions:

Legitimate authority to protect public health, safety & welfare

vs.

Unconstitutional taking without compensation

County Engineer is authorized to review traffic studies under Regional Planning's platting authority and/or under access to an existing public road.

Scope of traffic study must be consistent with legal principles involving platting of new lots or new/revised access to public roadways.



Other Information

Township Road Maintenance – Powers and Duties

Cooperative Purchasing Information

Residential Development Information

Pavement Maintenance Concepts

Upcoming Road Projects



Questions?

Chris Bauserman, PE, PS
County Engineer

Rob Riley, PE, PS
Chief Deputy Engineer

Douglas Riedel, PE
Township Engineer

Phone: 740-833-2400
delcoeng@co.delaware.oh.us



Township Road Maintenance – Powers and Duties

Obstructions in the Right of Way

Roadside Drainage

Bridges and Culverts

Curve Signs

Sign Maintenance

Winter Road Maintenance



Obstructions in the Right of Way

O.R.C. § 5543.14 grants specific authority for removing trees and brush:

- ... the board of township trustees **may** trim or remove any and all trees, shrubs, and other vegetation growing in or encroaching onto the right-of-way of the township roads of its township, as is necessary in the engineer's or board's judgment to facilitate the right of the public to improvement and maintenance of, and uninterrupted travel on, county and township roads.
- ... board is **not required** to compensate the abutting landowner for trimming or removing such trees, shrubs, and other vegetation as is necessary to facilitate these rights.



Obstructions in the Right of Way

Blocked Culverts or Drainage Obstructions

- Can be removed per ORC 5571.14
- Must be for a public necessity
- Not for an isolated private drainage problem



Roadside Drainage

Road ditches are considered part to the road and subject to the various road improvement statutes

ORC 5571.15 Authorizes the board to “improve the drainage of water from the surface of the road”



Roadside Drainage

No authorization in Ohio Law for townships to:

- Improve drainage from private property adjacent to the road
- Make drainage improvements beyond those related to a public road
- Intervene in private property drainage problems or disputes



Bridges and Culverts

Structures on Township Roads

- Bridges – Span or diameter greater than 10 feet (County)
- Culverts – Span or Diameter of less than 10 feet (Township)
- County participates in Township Culvert projects
- Need advance notice to include your culvert in our budget – October 1 of prior year

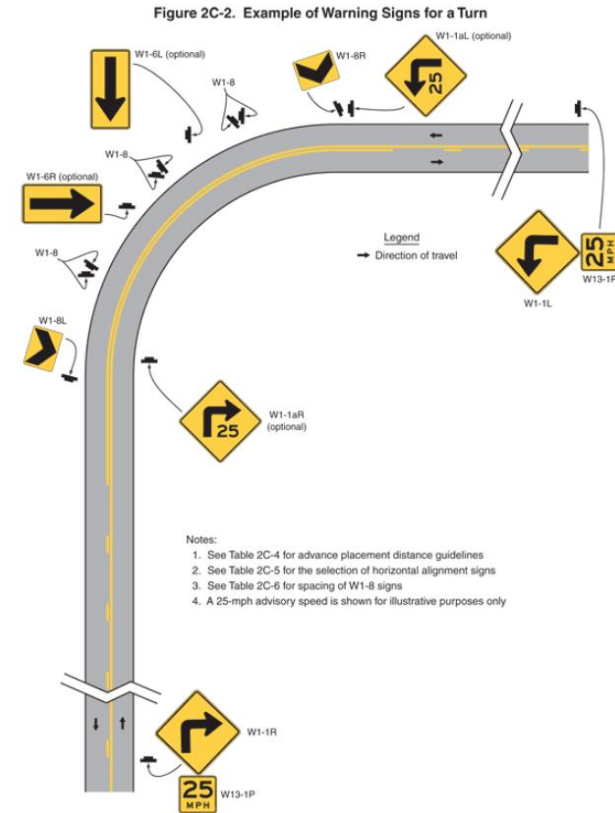


Curve Signs – Now Required!

Ohio MUTCD **requires** curve signs for roads with ADT over 1000 vehicles/day

What does that mean???

- All curves which require warning signs must comply with the OMUTCD
- If the advisory speed is 10 mph under the posted speed, curve signs are required
- Chevrons required if difference is 15 mph
- Roads with under 1000 vehicles per day are exempt from the requirement; however, signing is still recommended!



Sign Maintenance

You **must** have a management method in-place to maintain minimum sign retro-reflectivity (since June 13, 2014)

- Systematic replacement at a certain interval (e.g. 10 years) is an acceptable type of maintenance method!

All regulatory signs (stop, yield and black & white signs)

- Stop, yield, speed limit, lane control, etc.

All warning signs (yellow/black and orange/black signs)

- Curve and intersection ahead signs, advisory speed, etc.

All street name signs (only certain colors are allowed)

- White lettering with either green, blue or brown background
- Black lettering with white background



Winter Road Maintenance

O.R.C. § 5571.08 Snow Removal

...the board of township trustees **shall** cause all the township roads within the township to be kept free from obstruction by snow.



Township Road Improvements

O.R.C. § 5571.01

A board of township trustees **may** construct, reconstruct, resurface, or improve any public road or part thereof under its jurisdiction...

O.R.C. § 5571.02

The board of township trustees **shall** have control of the township roads of its township ... and **shall** keep them in good repair.



Cooperative Purchasing

County Road Improvement Program
State Purchasing Contracts



County Road Improvement Program

Combined competitively bid contract for County and Township paving and surface treatments

County commissioners will award the county work to the **lowest and best bidder** per O.R.C. 307.90

Township must award to the same bidder to be part of the Program. Each township holds a separate contract with the Contractor.

Contract Advertisement: **March 2022**

Award: **April 2022**

All curb ramps must be ADA compliant prior to commencing work under this contract!



County Cooperative Purchasing

Delaware County Cooperative Purchasing Contracts available to townships:

To be awarded in **January:**

- Curb and Sidewalk Construction
- Guardrail installation
- Tree Clearing
- Pavement Markings

To be awarded in **March/April:**

- Hot-mix Asphalt Material
- Liquid Asphalt Materials (emulsions for chip sealing)
- Cold Mix



State Purchasing Contracts

Ohio Department of Administrative Services

- Vehicles
- Equipment
- Furnishings
- Various Materials

ODOT Contracts

- Guardrail
- Sign Boards
- Pipe/Culvert Slip Lining
- Crack sealing



Development Information

Residential Building Permits

Typical Residential Subdivision Process

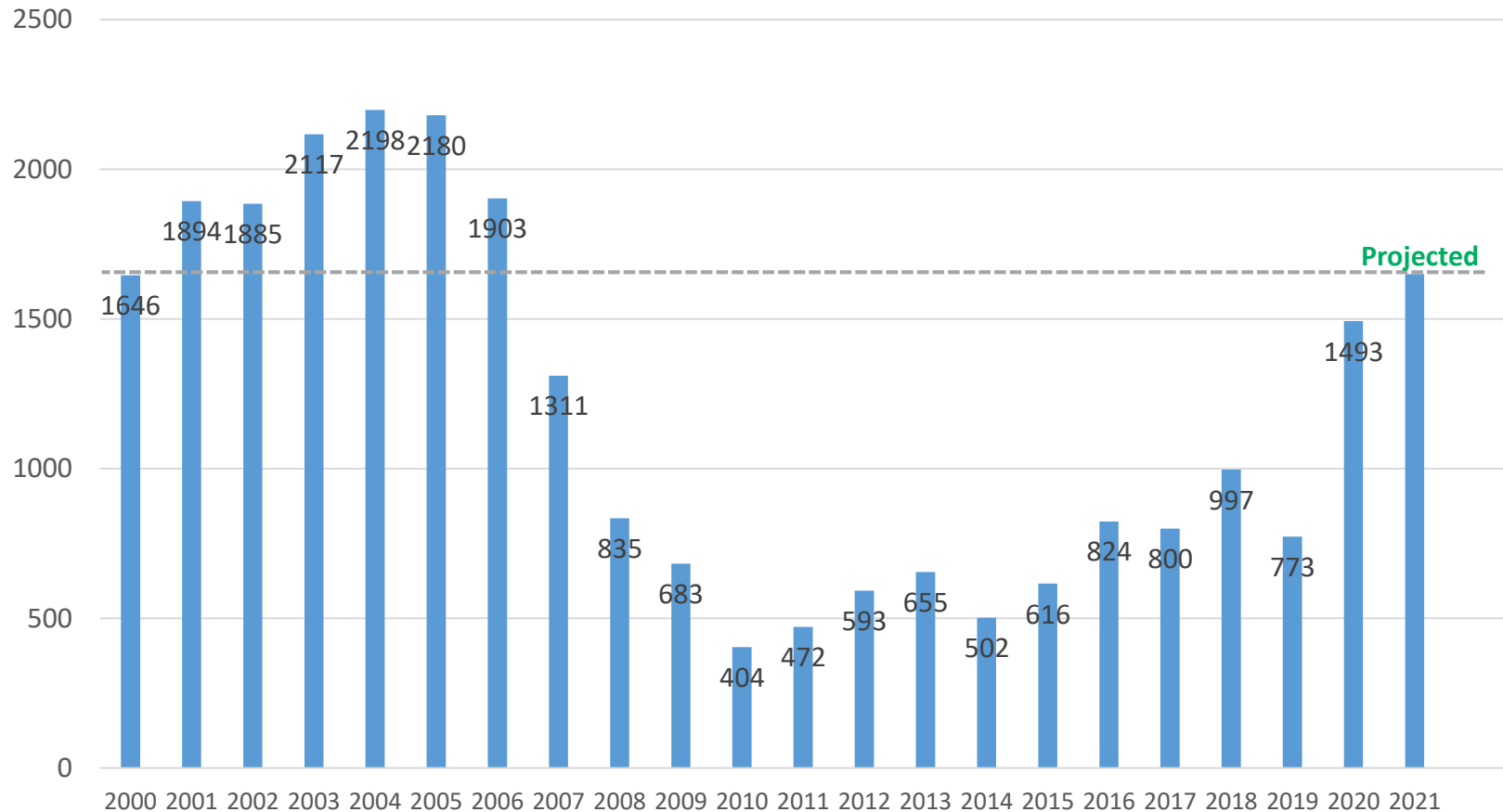
Hybrid Single-Family Condos

Cluster Mailbox Units

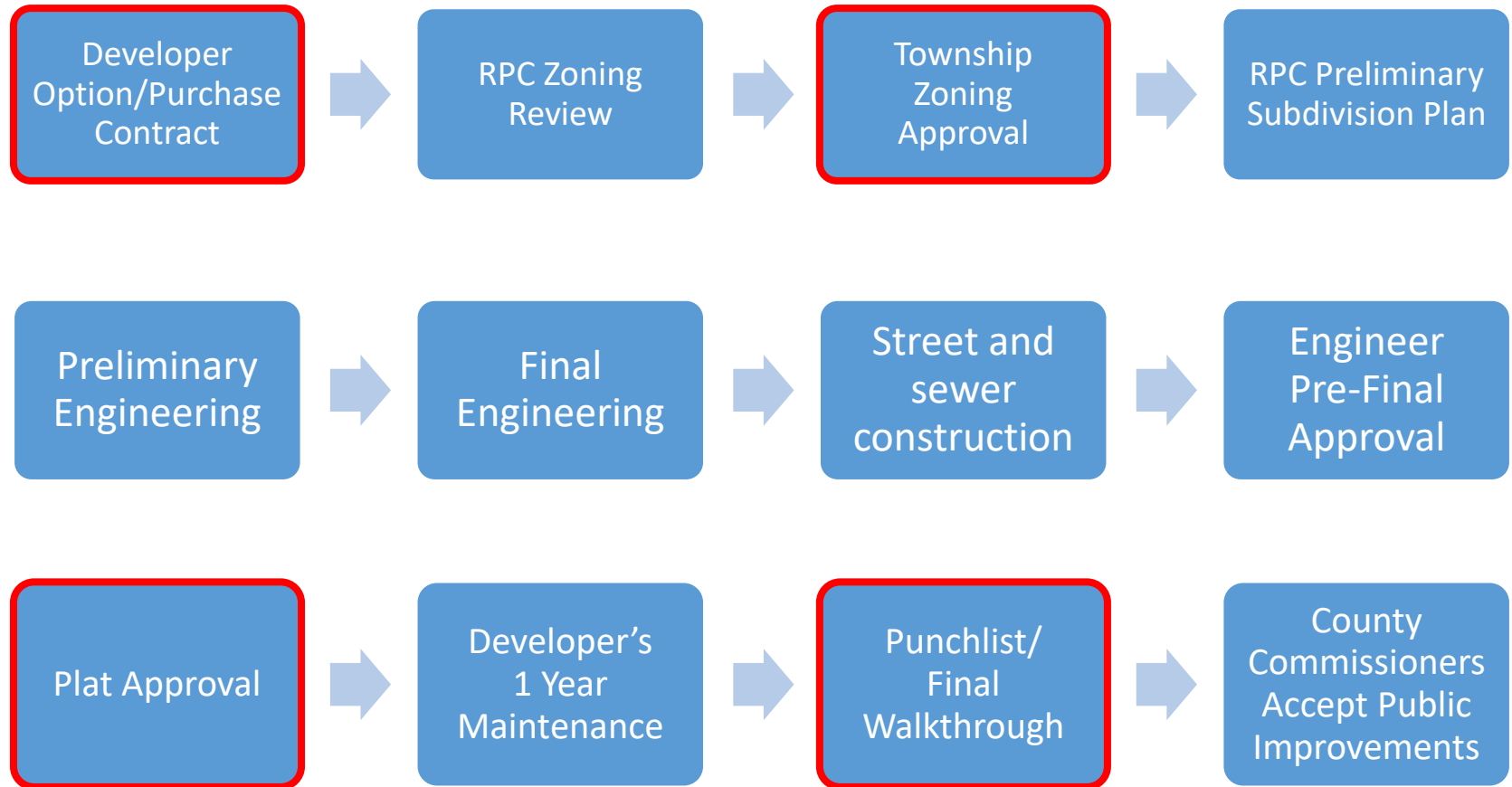


Residential Building Permits

Unincorporated Areas



Typical Residential Subdivision Process



Typical Residential Subdivision Process

Township review/approval checkpoints

Developer
Option/Purchase
Contract

Introduction of development to the township/
preliminary zoning discussions

Township
Zoning
Approval

Township Zoning Commission and Board of
Trustees approval of the land use type, density,
arrangement and details of the development

Plat Approval

Township zoning official signs off on the
conformance of the plat to the approved zoning plan

Punch list/
Walkthrough

Township road representative involved in review of
streets prior to acceptance



Hybrid Single-Family Condos

What are these?

- Subdivision with platted fee-simple lots that can be sold to a buyer prior to construction of the home
- Requirement in the subdivision plat to file condominium documents prior to occupancy
- Everything else looks similar to a typical single-family subdivision



Why do developers do this?

- Achieves higher density due to small setbacks
- Save money with narrower streets and thinner pavement section

Hybrid Single-Family Condos

Important considerations for the drives/streets:

- Long-standing DCEO requirement to construct private streets to public standards in any platted development
- However... condominiums are statutorily exempt from platting (R.C. 5311.02) meaning DCEO and RPC cannot require that the neighborhood drives conform to street standards or any other platting regulation
- To-date, developers have built these condo drives nearly to road standards but with notable differences
 - Narrower curb to curb width (23 feet vs. 27 feet)
 - Thinner pavement section (10-inch vs. 12-inch)
 - Narrower “right of way” (30 feet vs. 50 feet)
 - Sharper curves (75-foot radius vs. 250-foot radius)



Hybrid Single-Family Condos

Advantage for Townships:

- No township obligation for maintenance of streets
 - These condo drives don't meet the public street design requirements and DCEO won't be able to recommend future conversion to public streets

Disadvantages/Concerns for Townships:

- Future resident complaints to township that they are paying township road levy but receiving no benefit
- Failure of Condominium Association to maintain streets
- Fire and EMS response if neighborhood allows parking on both sides of the street
 - Enforcement?



Cluster Mailbox Units

Now being required by USPS in most single-family neighborhoods.

DCEO is working with Regional Planning Commission to develop standards for implementation.

1. Ensure adequate on-street stopping area in both directions
2. Provide ADA accessible curb ramps
3. Avoid placing in front of homes (place along open spaces where possible)
4. Place strategically for most pickups inbound to neighborhood in afternoon



Pavement Maintenance Concepts

Infrastructure Assets

Pavement is Most Valuable Part

Pavement Condition Index

Pavement Maintenance Concepts

Preventive Maintenance Concepts

Worst First or Preservation Approach?



Infrastructure Assets

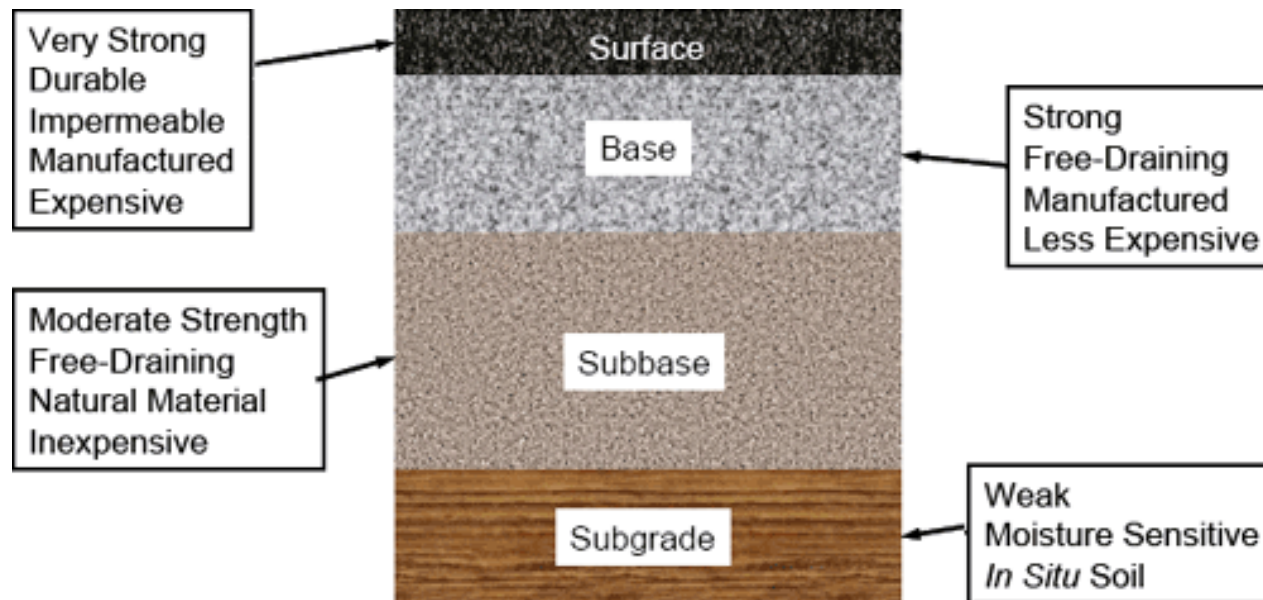
Roads are typically the most valuable asset of a political subdivision

- A typical 2-lane road is worth \$1.2 to \$3.0 million per mile depending on width, type of drainage system and topography

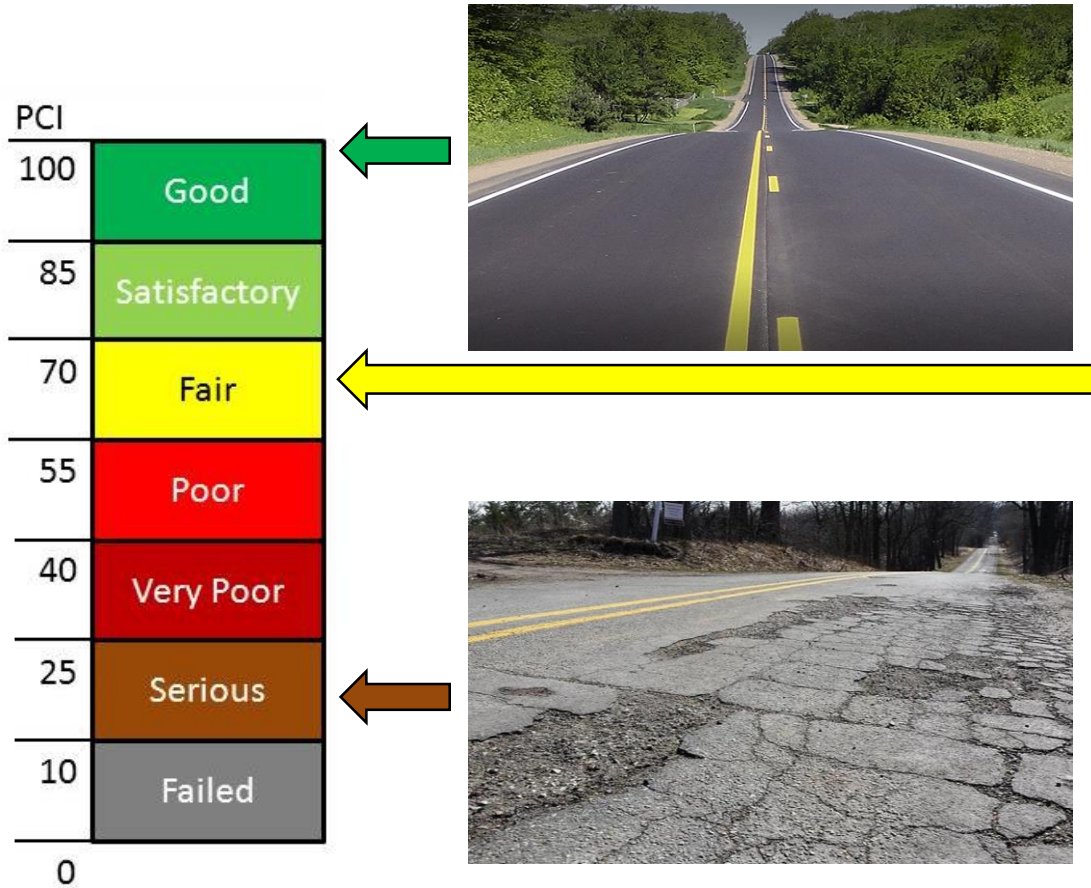
Component	Typical % of Total Road Cost
Pavement and road base	30-40%
Drainage system (storm sewers/ditches)	15-30%
Major structures (bridges, retaining walls)	0-25%
Safety devices (guardrails, barriers, lighting)	<5%
Traffic control (signs, signals)	<5%
Right of Way (land, easements)	10-25%

Pavement is Most Valuable Part




For a 2-lane road the pavement section is typically in the range of \$400,000 to \$1,000,000 per mile



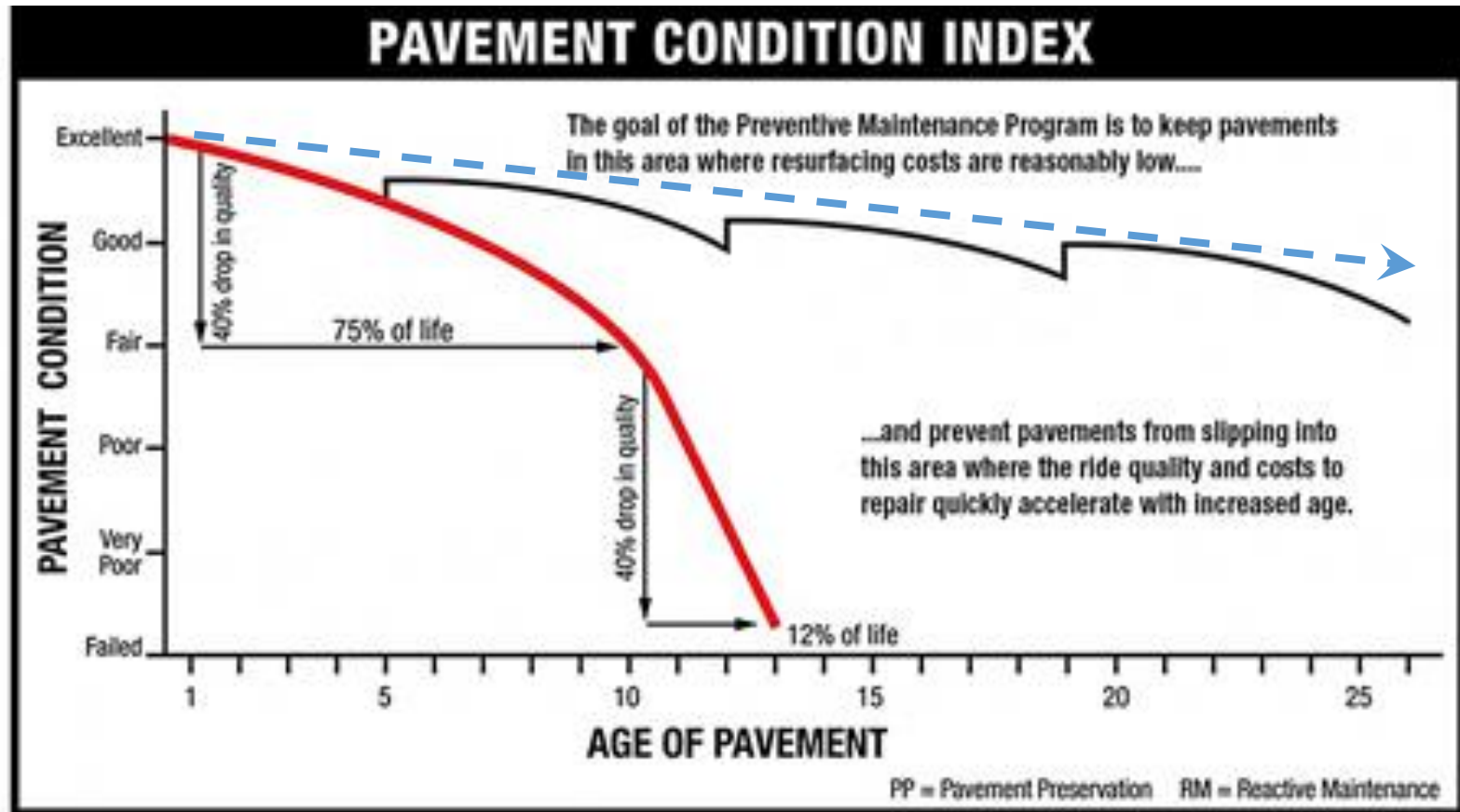
Pavement Condition Index



Pavement Maintenance Concepts

	PCI	REPRESENTATIVE PAVEMENT SURFACE	REPAIR ALTERNATIVE	MAINTENANCE PRIORITY
ROUTINE MAINTENANCE	86 - 100	90 	Pavements with PCIs above 85 will benefit from routine maintenance actions, such as periodic crack sealing, periodic joint resealing, or patching.	Medium Priority
PAVEMENT PRESERVATION	56-85	65 	Pavements with a PCI of 56 (65 for PCC pavements) to 85 may require pavement preservation, such as a surface treatment, thin overlay, or PCC joint resealing.	High Priority – don't let these fall into the red or it will cost big \$\$\$
MAJOR REHABILITATION	0 - 55	25 	Pavement allowed to deteriorate below a PCI of 55 (65 for PCC) will require costly reconstruction to restore it to operational condition.	Low Priority – for roads that have already failed, replace pavement only when budget allows

Preventive Maintenance Concepts



Worst First or Preservation Approach?

Don't fall into the "worst first" paving trap... once a road is "too far gone" keep it patched as cheaply as possible until you have the money to properly rehabilitate or rebuild it

A thin overlay or mill & fill on a pavement that's lost its structural resilience will only last a fraction of the expected lifespan

Spend your money first on preserving your good roads

PCI = 15



PCI = 85



Worst First or Preservation Approach?

Worst first paving example (prices per square yard):

- Asphalt mill and fill at year #12 (\$10)
- Asphalt mill and fill at year #20 (\$10)
- Replace or rehabilitate pavement at year #28 (\$25)

Maintenance over 28 years (\$0.71) + replacement cost every 28 years (\$0.89) =
= Total annualized ownership cost \$1.60 per square yard

Pavement preservation example (prices per square yard):

- Rejuvenate at year #2 (\$0.90)
- Crack seal at year #6 (\$0.75)
- Asphalt mill and fill at year #12 (\$10)
- Rejuvenate at year #14 (\$0.90)
- Crack seal at year #17 (\$0.75)
- Asphalt mill and fill at year #24 (\$10)
- Microsurface at year #32 (\$2.50)
- Replace or rehabilitate pavement at year #38 (\$25)

Maintenance over 38 years (\$0.68) + replacement cost every 38 years (\$0.66)
= Total annualized ownership cost \$1.34 per square yard



Upcoming Road Projects

Home Road East of U.S. 23

I-71 & US 36/SR 37 Interchange

Big Walnut Interchange

Orange Road RR Grade Separation

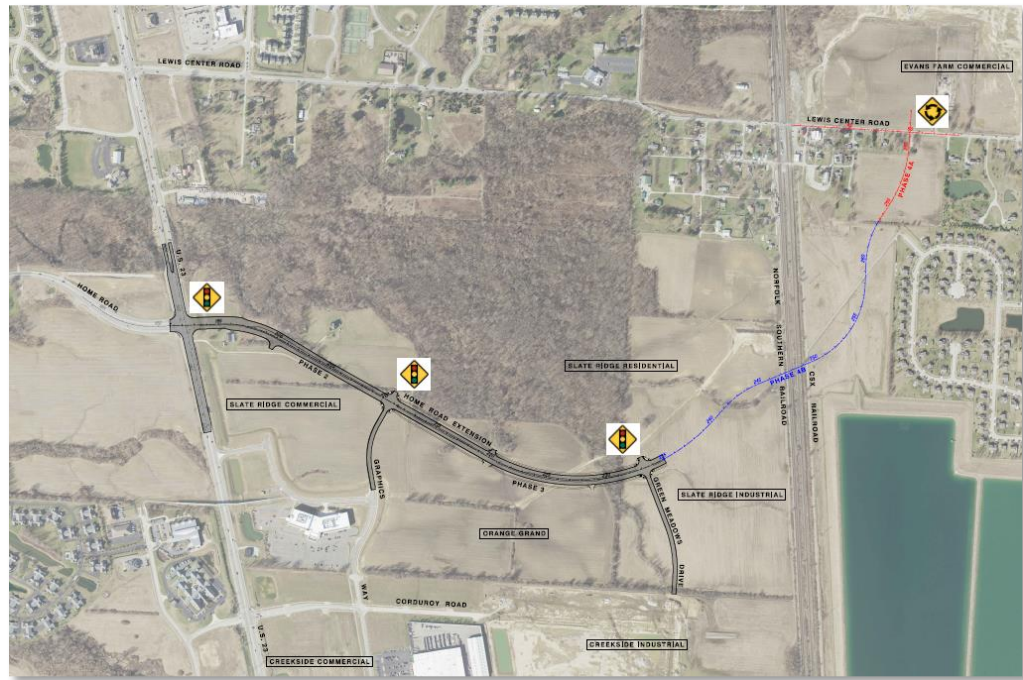
Byxbe Parkway



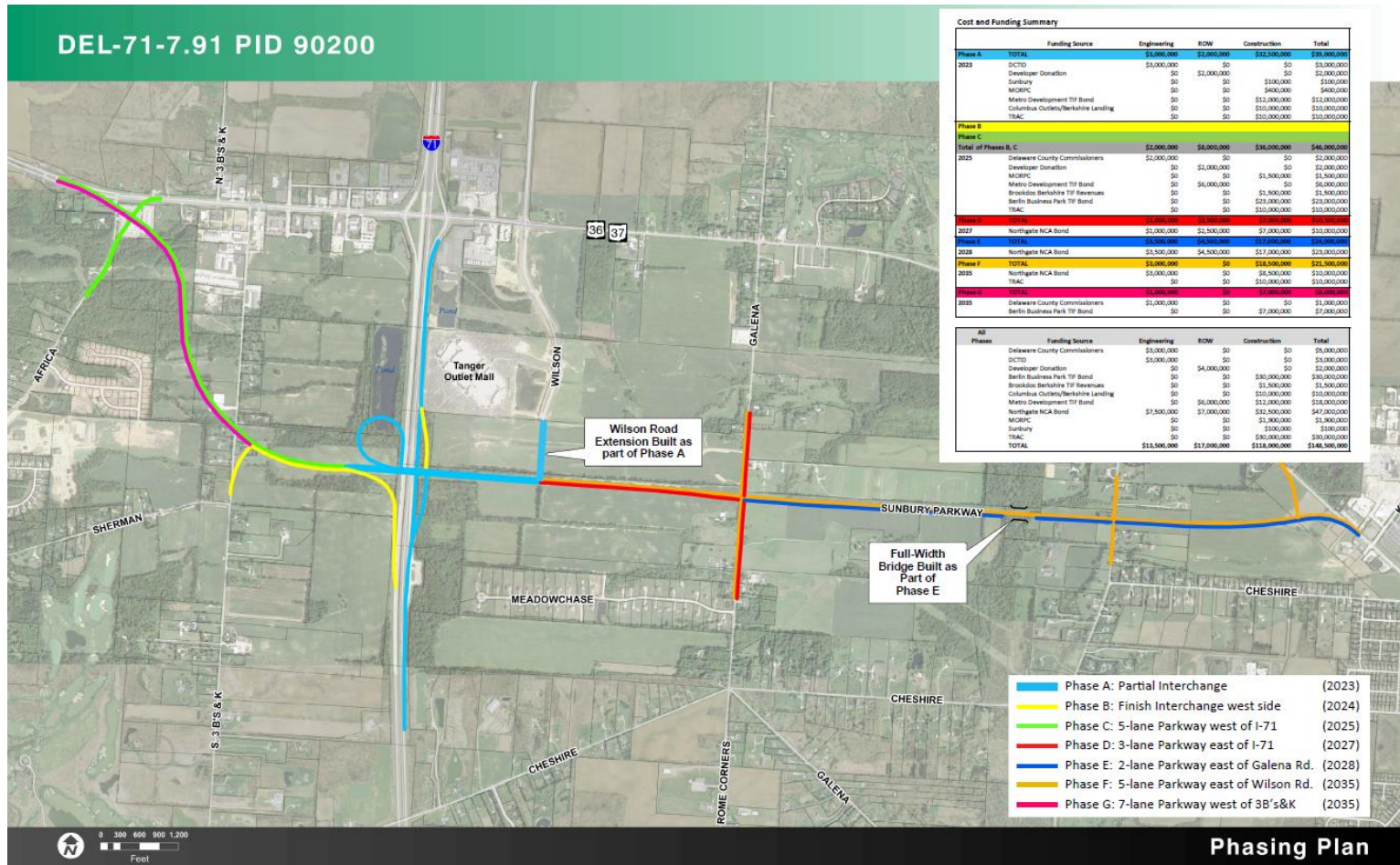
Home Road East of U.S. 23

0.9 mile extension opened September 2020.

Next phases include railroad overpass and roundabout at Lewis Center Road. Completion anticipated in 2025-26.



I-71 & US 36/SR 37 Interchange



County Engineer
DELAWARE COUNTY Ohio

Big Walnut Interchange

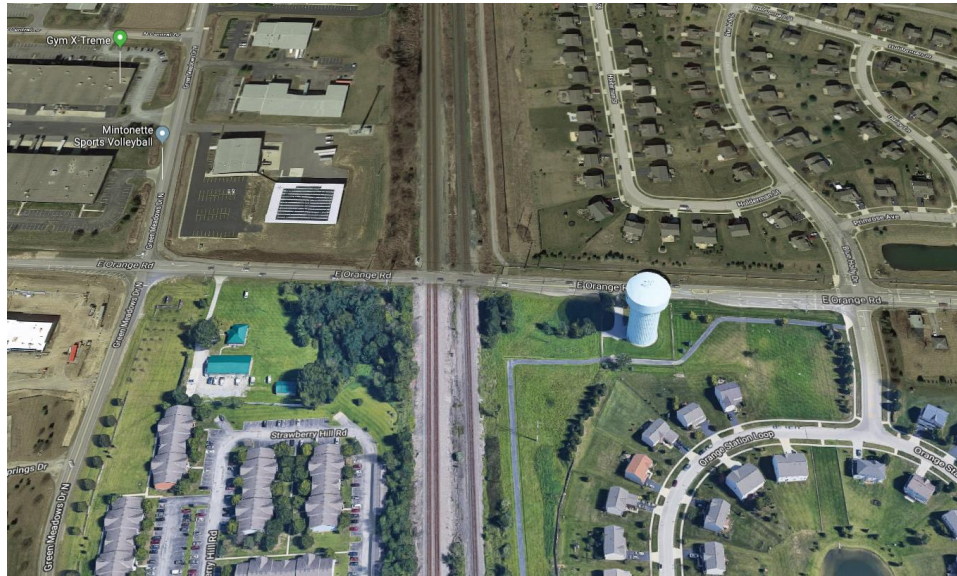


Orange Road RR Grade Separation

Underpass on Orange Road at the CSX/NS Railroads

Estimated cost: \$20 million

Construction planned for 2026-27



Byxbe Parkway

Phase 1 includes **0.75 miles** of new 5-lane roadway

\$4 million estimated cost

Construction 2022-23



REQUEST FOR ENGINEERING ASSISTANCE



Delaware County Engineer's Office
50 Channing Street
Delaware, Ohio 43015

Date: _____

Township: _____

The Board of Township Trustees hereby requests the County Engineer's engineering assistance as follows:

Road Name: _____ Road #: _____

Location: _____ miles _____ N _____ S _____ E _____ W _____ of _____ (nearest intersection)

or address # _____ or between _____ and _____ (roads).

ROADWAY/TRAFFIC SAFETY:

- ☐ Speed limit study
- ☐ Intersection traffic study
- ☐ Sight distance study
- ☐ Guardrail or barrier study

CULVERTS:

- ☐ Culvert safety inspection
- ☐ Culvert hydraulic analysis (pipe sizing)
- ☐ Force-account estimate
- ☐ County construction of township culvert

ROADWAY PLANNING AND MAINTENANCE:

- ☐ Pavement resurfacing or repair (attach road list)
- ☐ Roadway widening or other improvement study
- ☐ Sidewalk or curb ramp study
- ☐ OPWC funding application

DITCH/DRAINAGE:

- ☐ Ditch maintenance or cleanout

OTHER (describe below)

Include a brief description of what the Township is requesting. If there are multiple locations, list them below:

County Engineer is asked to respond to the following person who will be the point of contact in reference to this request:

Name _____ Title _____

Address _____ City _____ Zip _____

Phone _____ Fax or email _____

Township Trustee _____ Date _____

Township Trustee _____ Date _____

Township Trustee _____ Date _____

Township Administrator* _____ Date _____

A minimum of two Trustee signatures is required.

* A copy of resolution requesting engineering assistance by the Board along with this form signed by Township Administrator is acceptable.

Mail, email or fax the signed and completed form to:

Delaware County Engineer's Office
Attn: Doug Riedel, P.E.
50 Channing Street
Delaware, OH 43015
Fax: 740-833-2399
Email: driedel@co.delaware.oh.us

See instructions on the following pages for more information

Instructions for filling out the Delaware County Engineer's Request for Engineering Assistance form:

DATE: Fill out the date that the request was signed by the township board of trustees (or the last date if signed on more than one date by different trustees).

ROADWAY/TRAFFIC SAFETY:

Speed limit study:

1. Gravel, dirt or unimproved roads in accordance with ORC 4511.21(K)(1): The Board may establish speed limits by resolution, based on an **engineering and traffic investigation**, for all unimproved roads (gravel or dirt). A speed limit between 25mph to 55mph may be enacted. The County Engineer's Office will perform a speed limit study to determine an appropriate speed limit.

2. Subdivision streets within platted commercial or residential subdivisions in accordance with ORC 4511.21(K)(5): Except for "through highways", the Board may establish speed limits by resolution, based on an **engineering and traffic investigation**. Speed limits may be established from 25mph to 55mph on these streets. The County Engineer's Office will perform a speed study to determine an appropriate speed limit.

3. All other highways and roads in accordance with ORC 4511.21(B)(5): Speed limit established by ODOT based on **engineering investigation** done by the County Engineer. The Engineer will advise the township what, if any, change in speed limit is feasible, but ODOT has sole authority to alter speed limits on these roads. See County Engineer's website for more information.

Intersection traffic study (stop sign, traffic signal or roundabout): The Engineer will investigate the current traffic pattern at the intersection using traffic counts or other methods. If a change in the current stop condition is warranted, the Engineer will recommend a change and/or a course of action. If one of the roads is a county road, Delaware County must approve the change.

Sight distance study: The County Engineer's Office will collect field data on sight distance and report whether the existing sight distance conditions are satisfactory or whether changes are needed with a recommended course of action.

Guardrail/barrier study: The County Engineer's Office can conduct guardrail warrant studies or other types of safety studies. Please provide detailed information on what is desired from the study.

ROADWAY/TRAFFIC PLANNING:

Pavement resurfacing or repair: If pavement resurfacing such as asphalt paving, chip sealing or micro-surfacing is desired, the limits of the work should be specified. If multiple roads are being requested, list the roads and limits in the space provided for description of the request. If additional space is needed, attach a separate list. If the township wishes to program the road for the County's annual resurfacing program, indicate all township roads that the Board wishes to enter into the program. The Engineer can also provide estimates as requested.

Roadway or intersection improvement: The Township should specify the type and limits of improvements desired. Be specific. If only pavement work is desired, please refer to the section above. For road widening or more extensive improvement projects, the County Engineer's Office will evaluate existing conditions and report on possible alternatives. Estimated costs will be provided.

FUNDING APPLICATIONS:

OPWC application: The County Engineer's Office can help you submit a funding application for Ohio Public Works (Issue 2) funding. Refer to www.co.delaware.oh.us/engineer/design/townshipinfo.htm for more information on scheduling and applying for OPWC projects.

CULVERTS:

Culvert safety inspection: The Engineer will inspect and evaluate the existing culvert according to ODOT culvert inspection procedures and report the condition of the structure. This will include evaluation of functional capacity. An estimate will not be included unless specifically requested.

Culvert hydraulic analysis: The Engineer will perform drainage calculations to determine the waterway adequacy of the existing culvert and, if necessary, the proper size for a replacement culvert. An estimate will not be included unless specifically requested.

Force account estimate: A force-account assessment form will be completed by the Engineer in conformance with ORC 5575.01. This is an estimate of the actual labor, materials and equipment cost required to perform the work. If the estimated cost of the construction is less than \$45,000, the township may perform the work using its own crews, may hire a contractor, or may request the County Engineer's crews to perform the work. If it is over \$45,000, the township must advertise for competitive bids. A force account estimate is required for culverts constructed by township forces or by county forces.

County construction of township culvert: The County Engineer's Office will construct culverts on township roads with its own forces at the request of the board of trustees. The Engineer will first advise the township how long it will take to complete plans and specifications for the work. The Engineer will also determine cost sharing eligibility in accordance with the County Engineer's Culvert Cost Sharing Policy.

DITCHES/DRAINAGE: If the Township is requesting ditch work for any county maintained ditch, please indicate which ditch it is and the limits of the requested work.

LOCATION: Specify the location as a point referenced from the nearest intersection (for culverts). For road segments, such as for a speed limit study or for resurfacing, please specify the beginning and end points.

DESCRIPTION OF REQUEST: Include any supplemental information that would be helpful in responding to the request, including the specific issues that brought forth the need for the request. This is especially important when requesting a recommendation and estimate for road improvements, since there are a variety of improvements that can be performed.

TOWNSHIP CONTACT PERSON: Provide contact person's name, address, telephone and email or fax number.

APPROVAL OF REQUEST: All REA's must be signed by at least two (2) township trustees, or may be signed by the township administrator when authorized by resolution of the board of trustees.