

June 30, 2023

TO: DESIGN ENGINEERS AND DEVELOPERS

**FROM: MICHAEL A. LOVE, P.E., PTOE
DEPUTY DEVELOPMENT ENGINEER**

RE: Street Length Summary Table

The Delaware County Engineer's Office (DCEO) is adding a simplified street length summary table. This reporting is necessary for the County to report the street mileage data to Ohio Department of Transportation once the roads have been constructed.

The following table shall be provided on the Typical Sections and Details sheet and shall include the data for each street. The street length shall be provided at each change in section such as addition of a turn lane, starting at the taper.

Street Length Summary Table					
Street Name	Width* (F/F or EP/EP)	Station Begin	Station End	Length** (Miles x.xxx)	R/W Width
Miller Ct	27'	0+00	11+00	0.208	60'
Main St	Varies	0+00	14+53	0.275	70'
Center St	32'	0+00	31+77	0.602	60'
Front St	36'	0+00	18+50	0.350	70'

*If street width tapers, then width = "Varies"

** Cul-de-sac length is measure to midpoint of cul-de-sac bulb

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

Michael A. Love, P.E., PTOE
Deputy Development Engineer



Delaware County Engineer

Chris Bauserman, P.E., P.S.

October 19, 2022

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: MICHAEL A. LOVE, P.E., PTOE
DEPUTY DEVELOPMENT ENGINEER

RE: Review Submittal Coversheet

The Delaware County Engineer's Office (DCEO) has updated the DCEO Review Submittal Coversheet. **ALL** submittals to DCEO require a Review Submittal Coversheet. This revision eliminates the requirement of a separate submittal to the DCEO Stormwater/DESC department.

The revised coversheet is attached and can be downloaded from our development resource webpage on our website. Please book mark because revisions are posted periodically.

Review fees can be paid online or by check. If paying by check, include the DCEO Review Submittal Cover Sheet.

For all plan submittals, the designer shall email mlove@co.delaware.oh.us notifying that PDF files have been posted to a shared file location. DCEO will acknowledge via email that the files have been received.

Please note that submittals without the Review Submittal Cover Sheet will NOT be processed. Review fees must be paid at the time of submittal. Otherwise, the review will not commence.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

Michael A. Love, P.E., PTOE
Deputy Development Engineer

February 11, 2022

TO: DESIGN ENGINEERS AND DEVELOPERS

**FROM: MICHAEL A. LOVE, P.E., PTOE
DEPUTY DEVELOPMENT ENGINEER**

RE: Plat Submittals

In compliance with Delaware County Regional Planning Commission (RPC) Subdivision Regulations, in order to be scheduled for the RPC monthly meeting, an approvable plat must be submitted to RPC by 5pm on the RPC deadline of each month. The Delaware County Engineer's Office (DCEO) is clarifying the submittal date(s) to our office.

Effective **May 2, 2022**, all supplemental information, including but not limited to, signed owner's agreements, bonds, fees, permits, and drainage maintenance requirements shall be submitted to our office no later than **4 pm on the RPC deadline of each month**. This will allow adequate time for our office to obtain final signatures (Commissioners and County Engineer) prior to the RPC monthly meeting. Items submitted after 4 pm will not provide DCEO with adequate time to coordinate plat signatures. This **will** result in the plat being delayed until the following month.

Sincerely,



Michael A. Love, P.E., PTOE
Deputy Development Engineer



Delaware County Engineer

Chris Bauserman, P.E., P.S.

May 20, 2020

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: MICHAEL A. LOVE, P.E., PTOE
DEPUTY DEVELOPMENT ENGINEER

RE: SHARED USE PATH UPDATE

The Delaware County Engineer's Office (DCEO) is clarifying the shared use path (multi-use path, etc.) minimum pavement buildup.

Multi-use paths shall be designed/constructed per City of Columbus Standard Drawing 2310, dated 04/30/18. The Townships or other Entities may have buildups that exceed minimum required path buildup.

Multi-use path widths shall be 10' where adjacent to collectors and arterials. Width of paths within subdivisions may be reduced to 8' with approval from the Township.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

Michael A. Love, P.E., PTOE
Deputy Development Engineer

December 27, 2012

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: JOHN A. PICCIN, P.E., P.S.
DEPUTY DEVELOPMENT ENGINEER

RE: ROADWAY CULVERTS – ARTICLE IX, SECTION 904A., ITEM 12. MATERIAL
STORM SEWERS – ARTICLE IX, SECTION 904B., ITEM 4. MATERIAL
SUBMITTAL REQUIREMENTS

The Delaware County Engineer's Office (DCEO) has clarified our policy regarding allowable materials for roadway culverts and storm sewers (Article IX, Section 904) of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. These policies will be effective as of the date of this letter. The clarification is noted as ~~struck through~~ and in *italics* below. The updated list of allowable materials for roadway culverts and storm sewers referenced below is attached to the end of this memorandum. Separate lists for the ODOT CMS 2010 and the City of Columbus (COC) CMS 2012 are attached.

A. Roadway Culverts

12. Material: The conduit material shall meet the requirements of these Standards (See Art. II, Sect. 203) and the Supplemental Specifications to these Standards. *An updated list of allowable roadway culvert materials is included in the Supplemental Specifications to these Standards.*

B. Storm Sewers

4. Material: The storm sewer material, including plastic pipe, shall meet the requirements of these Standards (See Art. II, Sect. 203), and the Supplemental Specifications to these Standards. *An updated list of allowable storm sewer materials is included in the Supplemental Specifications to these Standards.* ~~No plastic pipe shall be permitted under the pavement. Approval of plastic~~ The use of polyethylene pipe (COC CMS 720.12) is limited to areas outside of the pavement and sidewalks/multi-use paths and must be approved by the County Engineer prior to final engineering plan approval. Where plastic pipe is permitted, 100% of the pipe, including all Type B, C, D, E and F installations, shall be mandrelled 30 days after installation. At the end of the maintenance period, all plastic pipe shall be mandrelled again. The mandrel test at the end of the maintenance period is not required for plastic pipe conforming to ASTM F2736-10 and/or F2764-10 (COC CMS 720.13 and/or COC CMS 720.14) used in a Type C application (outside of the pavement and sidewalk/multi-use paths).

Alternate methods to verify the pipe condition, such as video tape/camera may be approved by the County Engineer. All plastic pipe failing the mandrel test(s) shall be retested and/or replaced per these Standards and Supplemental Specifications.

Submittal Requirements

As a reminder, requirements for submittals to the DCEO can be found at the following link:

<http://www.co.delaware.oh.us/engineer/drp.htm>

Submittal requirements are outlined under "Privately Funded Projects". Please include a completed checklist with all plan submissions, as well as any required fees.

Drainage, Erosion and Sedimentation Control (DESC) plans require a separate submission from the Construction plans, as outlined on the Submittal Form.

All Change Orders shall be submitted to Dan Jennings, Chief Inspector.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

John A. Piccin, P.E., P.S.
Deputy Development Engineer

DC PN 004 – 12/27/2012 – ALLOWABLE ITEM 603 CONDUIT MATERIALS PER COC CMS 2012

Any of the following conduit materials may be used when the pay item description or general notes do not specify a conduit material:

Type A Conduits – Culverts:

All sizes: 706.02, 706.03, 706.04, 706.05, 706.051, 706.052, 706.053

Type B Conduits – Storm sewers under pavement or sidewalk/multi-use path:

Any size: 706.02, 706.04, 706.05, 720.10, 720.13, 720.14, 801.03, 801.04

Type C Conduits – Storm sewers not under pavement or sidewalk/multi-use path:

Any size: 706.02, 706.03, 706.04, 706.05, 720.13, 720.14, 801.03, 801.04
30-inch or smaller: 720.08, 720.09, 720.10, 720.11, 720.12

Type D Conduits – Drive pipes and bikeways:

Any size: 706.02, 706.04, 706.05, 720.13, 720.14
30-inch or smaller: 720.08, 720.09, 720.10, 720.11, 720.12, 801.03, 801.04

Type E Conduits – Miscellaneous small drain connections and headers:

Any size: 706.01, 706.02, 706.04, 720.08, 720.10, 720.11, 720.13, 720.14
30-inch or smaller: 720.12

Type F Conduits – Conduits on steep slopes; underdrain outlets:

Any size: 720.08, 720.10, 720.13, 720.14,
30-inch or smaller: 720.12

Only sizes permitted within the specification listed above shall be used.

For plastic conduits, the Department shall perform post-installation inspection prior to placing curbs or pavement or any structures over top of the pipe.

DC PN 004 – 12/27/2012 – ALLOWABLE ITEM 603 CONDUIT MATERIALS PER ODOT 2010 CMS

Any of the following conduit materials may be used when the pay item description or general notes do not specify a conduit material:

Type A Conduits – Culverts:

All sizes: 706.02, 706.03, 706.04, 706.05, 706.051, 706.052, 706.053, 707.11, 707.21, 707.22
Larger than 30-inch: 707.01 or 707.02 or 707.03 or 707.05 or 707.07 Aluminized Type 2 only, 707.04, 707.15, 707.23, 707.25

Type B Conduits – Storm sewers under pavement or sidewalk/multi-use path:

Any size: 706.02, 706.04, 706.05, 707.42, 707.65, 707.69, 748.01

Type C Conduits – Storm sewers not under pavement or sidewalk/multi-use path:

Any size: 706.02, 706.03, 706.04, 706.05, 707.65, 707.69, 748.01, 748.02
30-inch or smaller: 707.33, 707.41, 707.42, 707.43, 707.44, 707.45, 707.46

Type D Conduits – Drive pipes and bikeways:

Any size: 706.02, 706.04, 706.05, 707.65, 707.69
30-inch or smaller: 707.33, 707.41, 707.42, 707.43, 707.44, 707.45, 707.46, 748.01, 748.02
Larger than 30-inch: 707.11, 707.21 or 707.22, 707.23

Type E Conduits – Miscellaneous small drain connections and headers:

Any size: 706.01, 706.02, 706.04, 707.41, 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52, 707.65, 707.69
30-inch or smaller: 707.32, 707.33
Larger than 30-inch: 707.21 or 707.22

Type F Conduits – Conduits on steep slopes; underdrain outlets:

Any size: 707.41, 707.42, 707.45, 707.65, 707.69
30-inch or smaller: 707.33
Larger than 30-inch: 707.05 or 707.07 Aluminized Type 2 only, 707.21 or 707.22

Only sizes permitted within the specification listed above shall be used.

For plastic conduits, the Department shall perform post-installation inspection prior to placing curbs or pavement or any structures over top of the pipe.

November 4, 2011

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: DOUGLAS W. RIEDEL, P.E.
DEPUTY DEVELOPMENT ENGINEER

RE: REVISIONS TO DRAINAGE MAINTENANCE PETITIONS AND
UPDATED STANDARD UNIT PRICES FOR ENGINEER'S
ESTIMATES

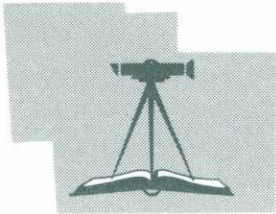
The Delaware County Engineer's Office (DCEO) has updated the language contained on the Drainage Maintenance Petitions provided in Appendix H of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. A copy of the updated petitions is attached. **Please discard Appendix H in its entirety and replace with the attached documents.** As of the date of this letter, these petitions shall be used on all applicable projects. A copy of the updated Appendix H is available on the Delaware County Engineer's Website.

The standard unit prices for engineer's estimates have been updated to reflect current estimated construction costs. These unit prices shall be used on all projects where the final engineering and construction plan has not been approved as of November 4, 2011. A copy of the updated construction costs is available on the Delaware County Engineer's Website.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

Douglas W. Riedel, P.E.
Deputy Development Engineer



Delaware County Engineer

Chris Bauserman, P.E., P.S.
County Engineer

Robert M. Riley, P.E.
Chief Deputy Engineer

August 15, 2011

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: DOUGLAS W. RIEDEL, P.E.
DEPUTY DEVELOPMENT ENGINEER

RE: CLARIFICATION OF TEMPORARY TURNAROUND POLICIES

The Delaware County Engineer's Office (DCEO) has clarified our policies regarding temporary turnarounds as set forth in Article V, Article VI and Article XI of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. These policies will be effective as of the date of this letter. All projects that do not have the final plat signed by the County Engineer as of the date of this letter shall comply with these policies. The clarifications are noted as ~~struck through~~ and in *italics* below.

ARTICLE V, SECTION 504

504 CONSTRUCTION PERFORMANCE GUARANTEE

A. Private Developments

Private developments (private streets built to public standards) shall be required to complete all construction *including the construction of all temporary turnarounds or the removal of all temporary turnarounds, including those on adjacent properties*, before the final plat will be approved by the County Engineer and forwarded to the *County Regional Planning Commission and then to the County Commissioners* for final approval.

H. Release of Guarantee and Approval of the Improvements to go onto Maintenance

Upon the request of the Owner, the County Engineer shall make an inspection of the project to verify that all improvements are essentially complete and have been constructed in reasonably close conformity to the approved plans and specifications. Upon completion of the inspection, the County Engineer shall advise the Owner in writing of any work items that are incomplete or which are not in reasonably close conformity with the approved plans and specifications.

For the project to be considered for acceptance to maintenance, all significant work items shall be complete, including but not limited to: street name signs, traffic control

devices, permanent or temporary barricades, flood routing, significant drainage and erosion control features. ~~Temporary turnarounds;~~ *The construction of temporary turnarounds or the removal of temporary turnarounds, including those on adjacent properties, shall also be complete.*

ARTICLE VI, SECTION 603

603 TEMPORARY AND PERMANENT TURN-AROUND

- A. A temporary turnaround shall be required when the end of the road in question is greater than 250 feet from the nearest intersection. No portion of the temporary turnaround shall be used as a driveway for any of the lots on the stub street. Language to this effect shall be listed on the plat for the subdivision. For the minimum turnaround design standards, see the Supplemental Specifications of these Standards.
- B. Where a temporary turnaround is used, it shall be provided with a temporary easement covering the portion of the turnaround that extends beyond the normal right-of-way limits. Such temporary easements shall be ~~automatically~~ vacated for the use of the abutting property owner when said temporary turnaround is no longer needed for public use. *Granting a vacation of the temporary easement(s) is required through a resolution of the County Commissioners. The removal of all temporary turnaround(s), including those on adjacent properties, is required prior to the County Engineer approving the final plat. For the minimum temporary easement widths for temporary tur-around(s), see the Supplemental Specifications of these Standards.*
- C. Permanent turnarounds will not be permitted without written approval by the County Engineer except for low-volume/low-density roads. All permanent turnarounds must be approved *in writing by the County Engineer* at the Preliminary Engineering Phase.

ARTICLE XI, SECTION 1102

1102 BUILDING PERMIT RELEASE

- A. Private Developments: Refer to Article V of these Standards.
- B. Subdivisions
 - 1. No Bond Subdivisions- All construction must be complete including all remedial items prior to releasing building permits. *Remedial work shall include, but is not limited to, all items listed under Item 2, Bonded Subdivisions, a. – e. noted below.*
 - 2. Bonded Subdivisions:
 - a. Paving- Refer to the Supplemental Specifications of these Standards for additional requirements.

- b. Storm Water Management Systems- Complete and functional with the exception of remedial work. The as built survey for retention basins, detention basins and/or sediment basins must be submitted and approved.
- c. Flood Routes- Staked and constructed.
- d. Erosion and Sediment Controls- All controls to be in place.
- e. Safety Items- All safety related items to be in place, *including, but not limited to, installation of all temporary T-turnarounds or removal of all temporary T-turnarounds (including those on adjacent properties), guardrails, barricades, street name signs, stop signs, ADA ramps, striping, and any other safety related items required at the discretion of the County Engineer.*

Appendix E – Checklist Updates

Corrections to all applicable checklists to reflect these changes, including other minor discrepancies found in the checklists, have been made. Updated checklists will be posted on the County Engineer's Website. Please contact this office if you would like a copy of the revised checklists sent to you.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,



Douglas W. Riedel, P.E.
Deputy Development Engineer

DWR:cd



Delaware County Engineer

Chris Bauserman, P.E., P.S.
County Engineer

Robert M. Riley, P.E.
Chief Deputy Engineer

May 10, 2011

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: DOUGLAS W. RIEDEL, P.E.
DEPUTY DEVELOPMENT ENGINEER

**RE: CLARIFICATION OF AS-BUILT PLAN REQUIREMENTS FOR COMMERCIAL,
COMMON ACCESS DRIVES (CAD), INDUSTRIAL AND MULTI-FAMILY SITES**

The Delaware County Engineer's Office (DCEO) has clarified our policy regarding as-built plan requirements as set forth in Article X of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. This policy will be effective as of the date of this memorandum.

Commercial, Common Access Drives (CAD), Industrial and Multi-family Sites – As-built plan requirements - The following items are required as part of the as-built plan phase approval:

1. A copy (paper and pdf) of the attached as-built verification letter signed and stamped by the Professional Engineer who was responsible for the project design. This letter must be submitted by the Professional Engineer with the as-built plans. The wording as shown on the attached example shall **not** be altered from what is shown. An electronic copy of the letter can be obtained from the County Engineer's website:
<http://www.co.delaware.oh.us/engineer/index.htm>
2. The as-built plans shall **not** contain any as-built certification statements from the Professional Engineer (PE) and/or Professional Surveyor (PS) that absolves the PE/PS who was responsible for the project design and the verification of the as-built plans of any future issues related to the accuracy of the information shown on the as-built plans.
3. All major flood routes shall use a unique symbol, such as a solid arrow of sufficient size, so that the arrow can be legibly seen on half-size plans.
4. All major flood routes shall be verified with survey points at a minimum of 25 feet intervals along the flood route. Survey points shall be taken at the top of bank and the flowline of the flood route every 25 feet. Survey points shall be provided for all ponds and for all top of castings as well.
5. Submission of the as built plans, such as number of hard copies, number of electronic copies, legibility, etc. shall comply with the Delaware County Engineer's Design, Construction and Surveying Standards Manual, current edition. Please refer to Article IV (Section 401 E. and Section 404), Article X (Section 1004), Appendix A (Section 401 E, 404 and Section 1004), Appendix B (Supplement to Article IV and Supplement to Article X) and the November 14, 2010 Memorandum from this office for specific requirements.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

Douglas W. Riedel, P.E.
Deputy Development Engineer

DWR:cd

AS-BUILT VERIFICATION LETTER REQUIREMENT

Date: xx/xxx/xxxx

Delaware County Engineer
50 Channing Street
Delaware, Ohio 43015

Attention: Kurt Simmons

Re: _____ Project
As-built Certification Form –
Flood Routing Retention/Detention Basins
And Storm Sewer/Culvert System

Dear Mr. Simmons:

The storm water management system, including storm sewers/culverts, retention/detention basins and major flood routing paths, for the above referenced project has been verified. A field survey of the constructed structures and drainage features and review of design data revealed the following information:

- The storm sewers/culverts, including pipe inverts, structure inverts and top of castings, have been generally constructed per plan.
- The retention/detention basin volumes, outlet structures and basin overflow weirs for Basin Numbers 1, 2, _____ have been found to conform to the intent of the engineering plans.
- Flood Routing Sections A-A, B-B, _____ are generally constructed per plan and sufficient capacity is available for the major flood routing. The constructed flood route swale (ditch) will have sufficient freeboard provided that the houses/buildings are built per plan.
(For cases where an item does not conform to the plans, provide an explanation here of how and what Items do not conform as well as potential impacts [good and bad] due to the difference from the plans)

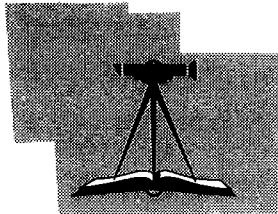
Enclosed are copies of the as-built exhibits for the basins and flood routing (one mylar copy and 4 CD-s) as well as updated major flood routing calculations.

Please call should you have any questions.

Sincerely,

_____, P.E.
Engineer of Record for the Project
(include Engineer's address and telephone number)

(Engineer's stamp here)



Delaware County Engineer

Chris Bauserman, P.E., P.S.
County Engineer

Robert M. Riley, P.E.
Chief Deputy Engineer

November 14, 2010

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: DOUGLAS W. RIEDEL, P.E.
DEPUTY DEVELOPMENT ENGINEER

RE: CLARIFICATION OF PLAN APPROVAL; CONSTRUCTION INSPECTION; AND AS-BUILT PLAN REQUIREMENTS FOR COMMERCIAL, COMMON ACCESS DRIVES (CAD), INDUSTRIAL AND MULTI-FAMILY SITES

The Delaware County Engineer's Office (DCEO) has clarified our policy regarding plan approval, construction inspection and as-built plan requirements as set forth in Article IV and Article X of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. This policy will be effective as of the date of this letter.

Commercial, Common Access Drives (CAD), Industrial and Multi-family Sites - Plan Approval, Construction Inspection and As-built plan requirements

Plan Approval Phase - DCEO Review Department approves plans in conjunction with DCEO Storm Water Department, DCEO Permit Department, and Delaware County Soil and Water Conservation District (SWCD)

Construction Inspection Phase –

If Constructed Under Owner's Agreement - Proceed as a typical single-family subdivision (e.g. inspection fees collected, pre-construction conference required, inspection by DCEO Inspection Department, etc.).

If No Owner's Agreement – Permit required from DCEO Permit Department and permit fees collected. Permit fee amount to be determined by DCEO during final engineering plan approval stage.

A pre-construction conference is optional – to be determined by DCEO/Delaware SWCD during final engineering plan approval stage.

Inspected by DCEO Permit Department/Storm Water Department

Permit Department Inspects -

- Basins – only if embankment is constructed as part of the approved final engineering plan. The Permit Department to schedule testing as necessary.
- Storm Lines/Culverts – the Permit Department to inspect publicly maintained items only.
- Driveways/Work within right-of-way

Storm Water Department Inspects -

- Water Quality Structures
- As-Built Plans – confirmation of basin sizing versus approved final engineering plans.
- Flood Routing – Delaware SWCD to field review all flood routes with DCEO Storm Water Department. Field review shall confirm that all flood routes are built per the approved final engineering plans.
- Orifice Plates and Anti-Seep Collars
- Seeding

As-built Plan Phase - As-built plans are required for all commercial, industrial, CAD and multi-family sites per the Delaware County Engineer's Design, Construction and Surveying Standards Manual, current edition. Four copies of the as-built plans are required to be submitted on CD's to DCEO [Article X, Section 1004 C. 5. a)]. Please refer to Article IV (Section 401 E. and Section 404), Article X (Section 1004), Appendix A (Sections 401E, 404 and Section 1004) and Appendix B (Supplement to Article IV and Supplement to Article X) for specific requirements.

DCEO Storm Water Department retains as-built plans for all commercial, industrial, CAD and multi-family sites. Approval of as-built plans, including the verification of all flood routes, basins and water quality structures is required by DCEO prior to releasing the DESC Permit for the site. If public streets or private streets built to public standards are part of the site, the as-built plans are retained by the DCEO Inspection Department.

To further clarify the as-built plan requirements, the Supplement to Article X, Section 1004 has been made. The clarifications are noted as ~~struck through~~ and in *italics* below.

1004 PLAT AND FINAL AS-BUILT PLAN REQUIREMENTS

Add the following items to Section C:

C. 5. Add the following to the end of the first paragraph:

The following as-built ~~information~~ *items* shall be submitted to the County Engineer:

- Top of casting *elevations* ~~shall be submitted~~ for all storm structures.
- Station and offsets for all storm structures and culverts.

- Invert elevations *for* all storm structures and culverts.
- As-built radii for all horizontal curves.
- As-built radii for all cul-de-sacs.
- Flood Route *and Basin* Verification (all).
- *Master Grading Plan – adequate information shall be submitted that insures the items listed in Article IV, Section 403 C. have been included.*
- Sight Distance Exhibit.
- Basin Proof Survey Verification Letter.
- Emergency Access – alignment, profile, drainage, composition, etc.

Appendix E – Final Plat Checklist

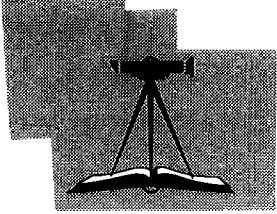
The final plat checklist has been revised to correct a typographical error. Please contact this office if you would like a copy of the revised checklist sent to you.

Should you have any questions regarding these clarifications, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read 'Douglas W. Riedel', written in a cursive style.

Douglas W. Riedel, P.E.
Deputy Development Engineer



Delaware County Engineer

Chris Bauserman, P.E., P.S.
County Engineer

Robert M. Riley, P.E.
Chief Deputy Engineer

August 11, 2010

TO: DESIGN ENGINEERS AND DEVELOPERS

FROM: DOUGLAS W. RIEDEL, P.E.
DEPUTY DEVELOPMENT ENGINEER

RE: STORM SEWERS – ARTICLE IX, SECTION 904B., ITEM 4.
MATERIAL – CLARIFICATION FOR
MANDREL TESTING FOR PLASTIC PIPE

The Delaware County Engineer's Office has clarified our policy regarding storm sewers (Article IX, Section 904) of the Delaware County Engineer's Design, Construction and Surveying Standards Manual. This policy will be effective as of the date of this letter. The clarification is noted as ~~struck through~~ and in *italics* below.

B. Storm Sewers

- 4. Material:** The storm sewer material, including plastic pipe, shall meet the requirements of these Standards (see Art. II, Sect. 203), and the Supplemental Specifications to these Standards. No plastic pipe shall be permitted under the pavement. Approval of plastic pipe is limited to area outside of the pavement and must be approved by the County Engineer prior to final engineering plan approval. Where plastic pipe is permitted, 100% of the pipe shall be mandrelled 30 days after installation. At the end of the maintenance period, all plastic pipe shall be mandrelled again. *The mandrel test at the end of the maintenance period is not required for plastic pipe conforming to ASTM F2736-10 and/or F2764-10.* Alternate methods to verify the pipe condition, such as video tape/camera may be approved by the County Engineer. ~~The second mandrel test may be waived by the County Engineer provided the plastic pipe meets the requirements of these Standards and the Supplemental Specifications to these Standards.~~ All plastic pipe failing the mandrel test(s) shall be retested and/or replaced per these Standards and Supplemental Specifications.

Should you have any questions regarding this clarification, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas W. Riedel". The signature is fluid and cursive, with a large initial "D" and a stylized "W".

Douglas W. Riedel, P.E.
Deputy Development Engineer

DWR:cd