

Common Comments Made on Sanitary Sewer Plans

**Presentation to
Building Industry Association of Central Ohio**

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Sanitary Engineer's Office
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Introduction

Background

- In late 2014, various members of the BIA (including developers and consultants) met with the Sanitary Engineer's Office to discuss ways to improve the plan review process.
- It was decided that a good way to improve communication would be to hold a meeting which focuses on "Common Comments" that are being made on sanitary sewer plans.

Part 1

Sheet Order

Common Comment #1: Sheet Order

- Please place all plan and profile sheets at the end of plan sets.

Example of Acceptable Sheet Order

Title Sheet.....	1
General Notes.....	2
Erosion Control Detai.....	3
Tributary Map.....	4
Plan & Profile.....	5-8

Example of Unacceptable Sheet Order

Title Sheet.....	1
General Notes.....	2
Plan & Profile.....	3-6
Erosion Control Details.....	7
Tributary Map.....	8

There is a reason we ask for the plan and profile sheets last...

Common Comment #1 (Continued): Sheet Order

Developments are occasionally split into phases or parts after the sanitary plans are signed.

This leads to confusing as-built sets that appear to have missing sheets. This is problematic if other departments in the Sewer District (maintenance, collections, etc.) or office staff need to quickly solve a problem or answer a question.

Placing the sheets that aren't affected by the splitting (like details) helps us to better keep track of the pertinent sheets and generally keeps the numbering system in order.

Additional Potential Benefit: We believe this may save time when staff is researching as-built plans in answering questions from developers and consultants.

Common Comment #2

Plan and Profile Sheet Order

(Plans with Multiple Sections)

If a plan set includes multiple sections, please place all Sections in a sequential order. (i.e. show all of Section 1 Sheets before any Section 2 sheets are introduced)

Common Comment #2: (Example)

Project: *The Estates at Anystreet, Sections 1 and 2*

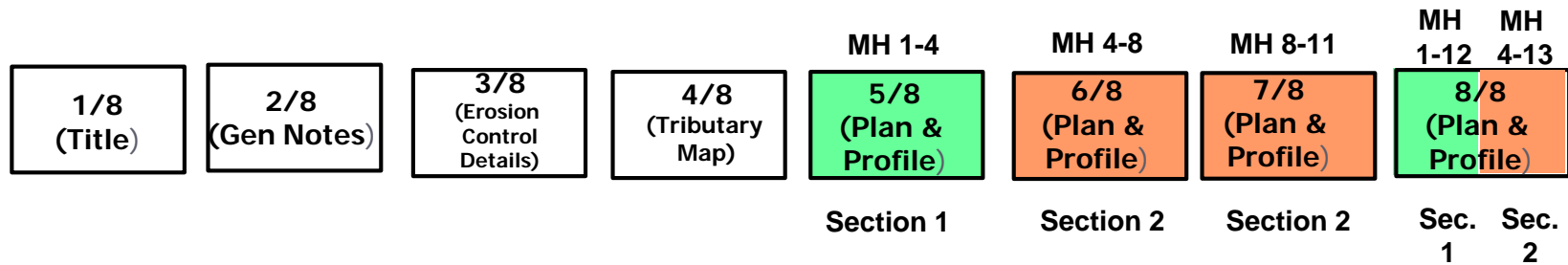


Denotes Section 1

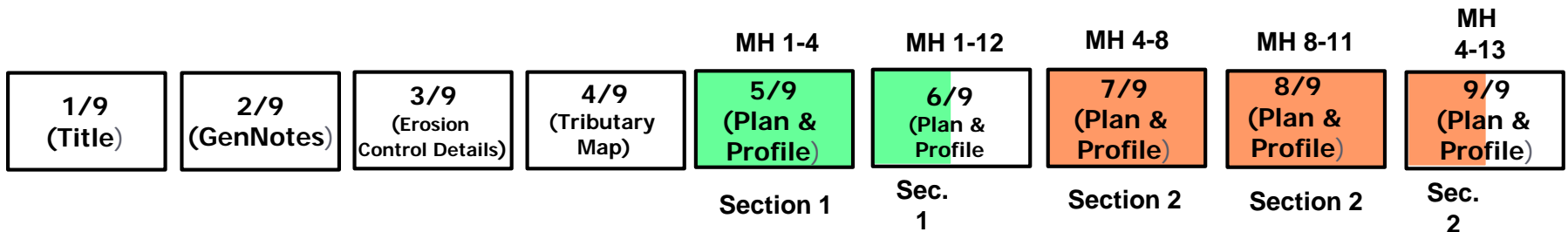


Denotes Section 2

Example of an Unacceptable Order for Plan & Profile Sheets:



Preferred Order

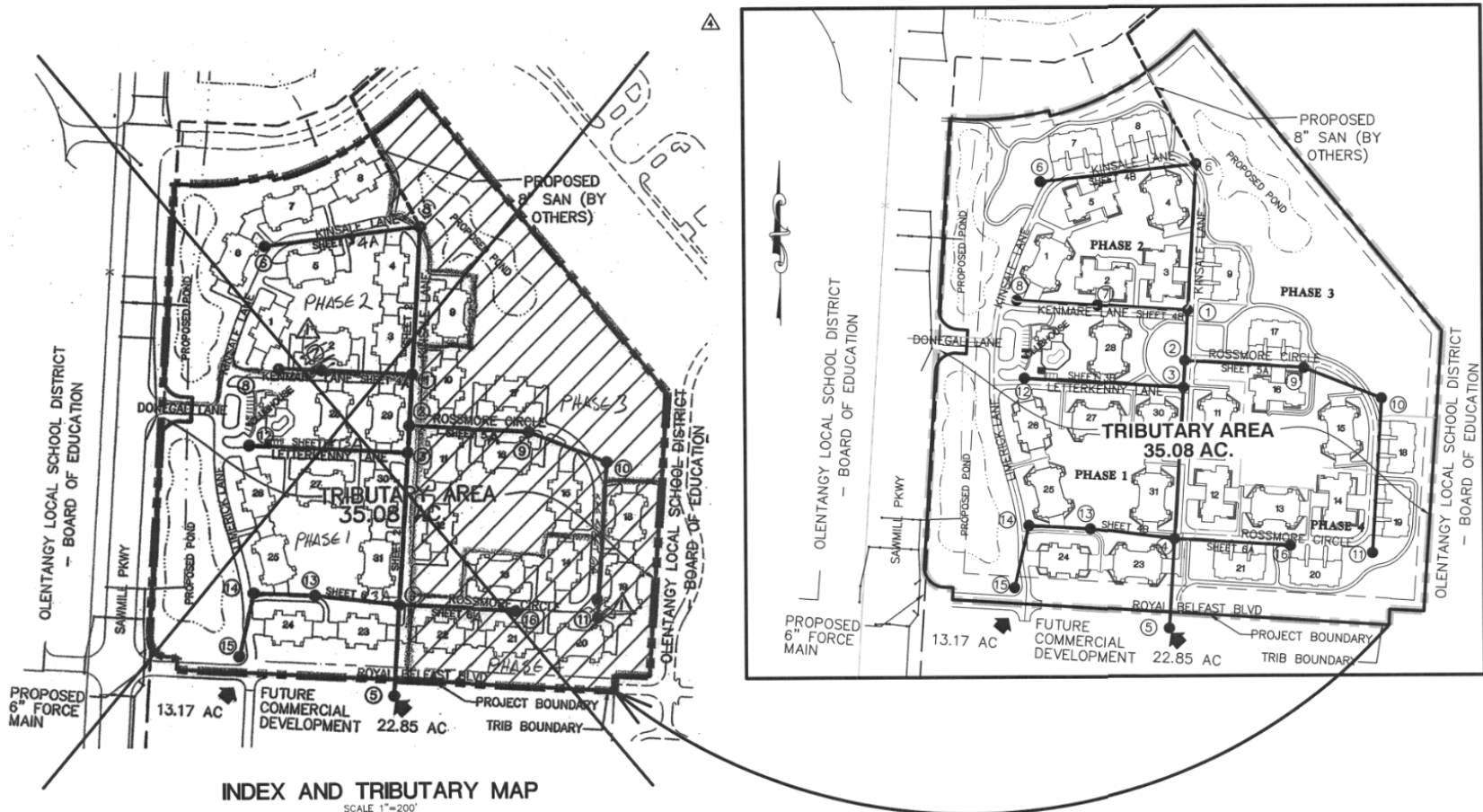


More considerations regarding the order of sheets:

- ▶ We are going through an evaluation phase now where we are allowing multiple sections on one plan (in various instances).
- ▶ We have had difficulties in the past with multiple sections being included on the same plan (As-builts, Auditing, Subdivider's Agreements, etc.).
- ▶ Sometimes having multiple sections on one plan slows down the approval process if as-builts need to be re-drawn or quantities need to be split.
- ▶ We still ask that only one Section be included in a plan wherever possible.

Still more considerations regarding the order of sheets:

- ▶ If plans are split after approval, or buildings change, we may require some “artistic” revisions and re-ordering of sheets to the plan to keep the changes easy to follow and the plan set chronological.

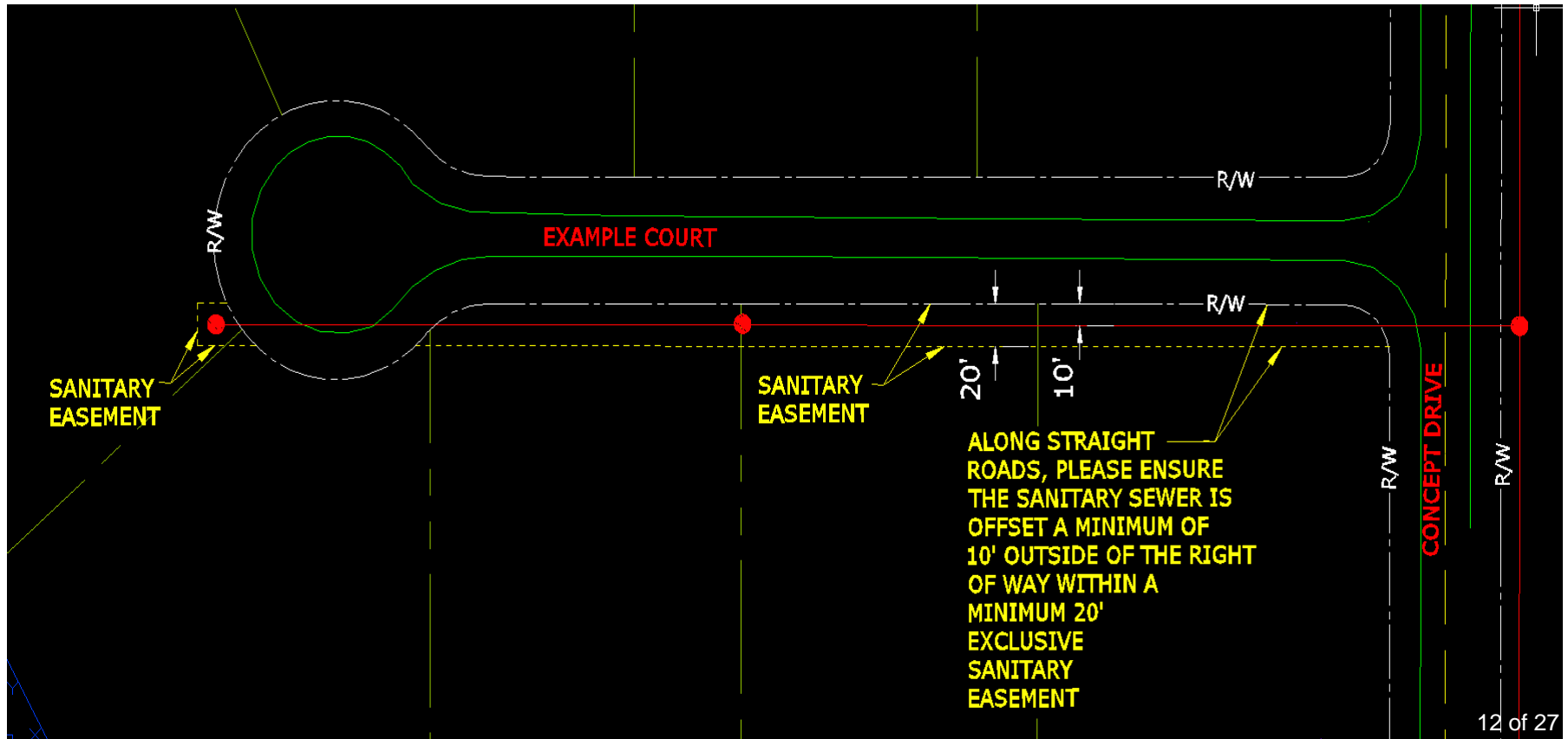


Part 2

Sanitary Sewer Alignments

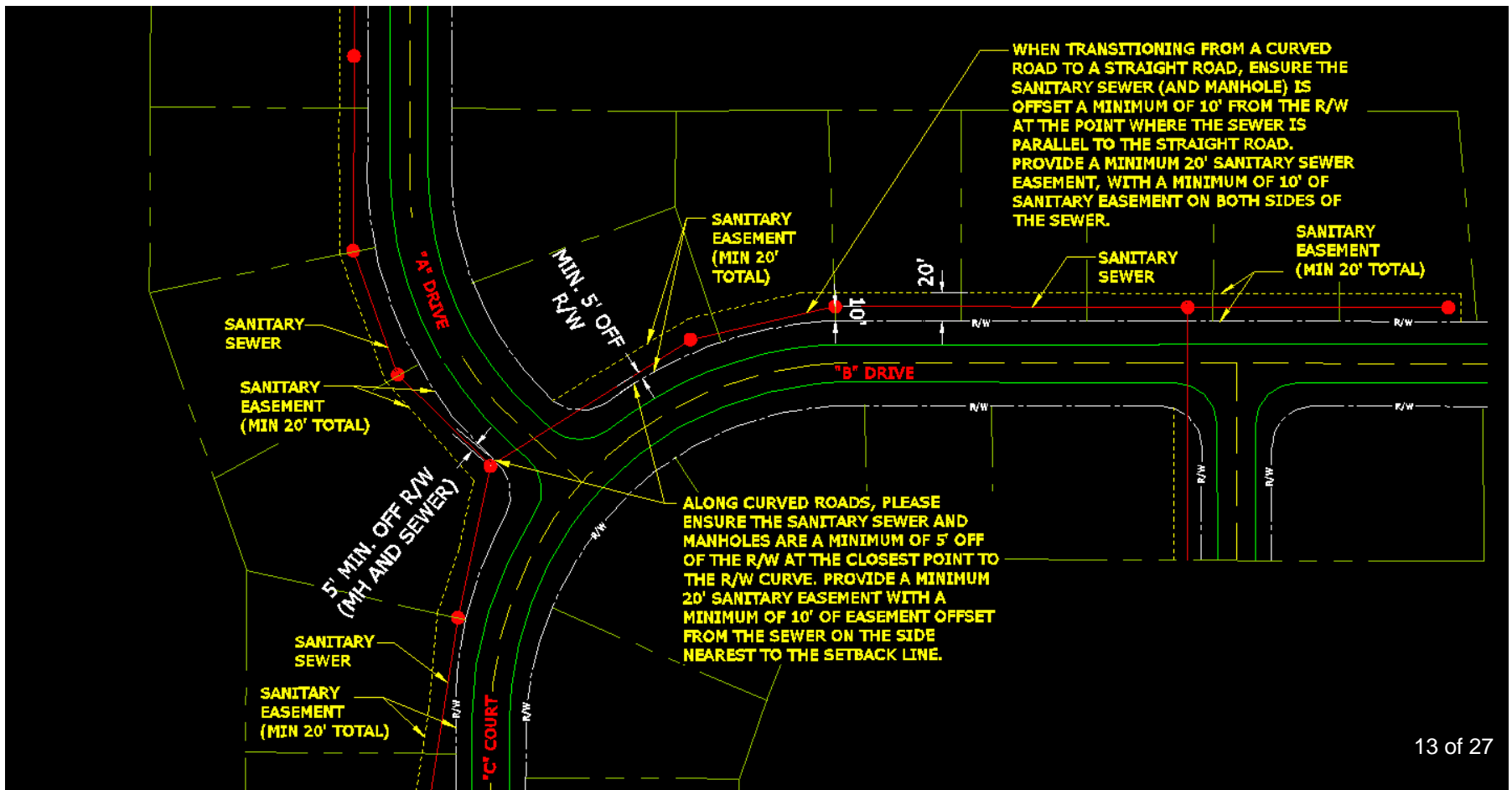
Common Comment #3: Sanitary Alignments Along Straight Roads

Please ensure sanitary sewer is a minimum of 10' off of the R/W within a minimum 20' exclusive sanitary easement



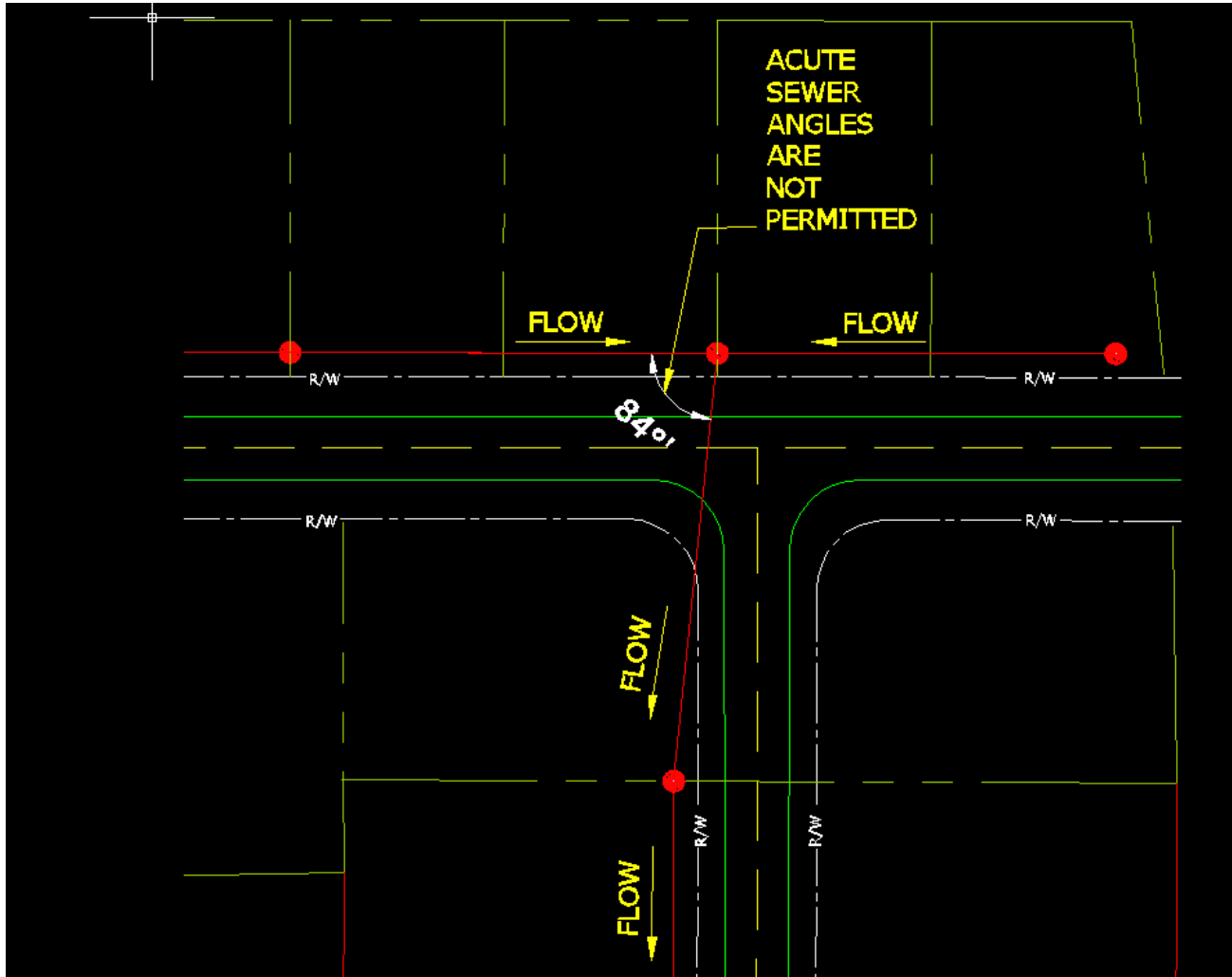
Common Comment #4: Sanitary Alignments Along Curved Roads

Please ensure all sections of the sanitary sewer and manholes are a minimum of 5' off of the R/W at the closest point to the R/W. Provide a 20' minimum exclusive sanitary easement.



Common Comment #5: No Acute Angles

Please ensure there are no acute sewer angles on the plans.



Part 3

Zoning Documents and Environmental
Reports & Permits

Common Comment #6: Consult the Zoning Documents

Consult the zoning documents and show various features which may affect the sanitary sewer plans

Examples of items to be shown on the sanitary plans may include, but are not limited to:

Bike/Leisure Paths

Footbridges

Playgrounds

Parking Areas for Playgrounds

Mounding

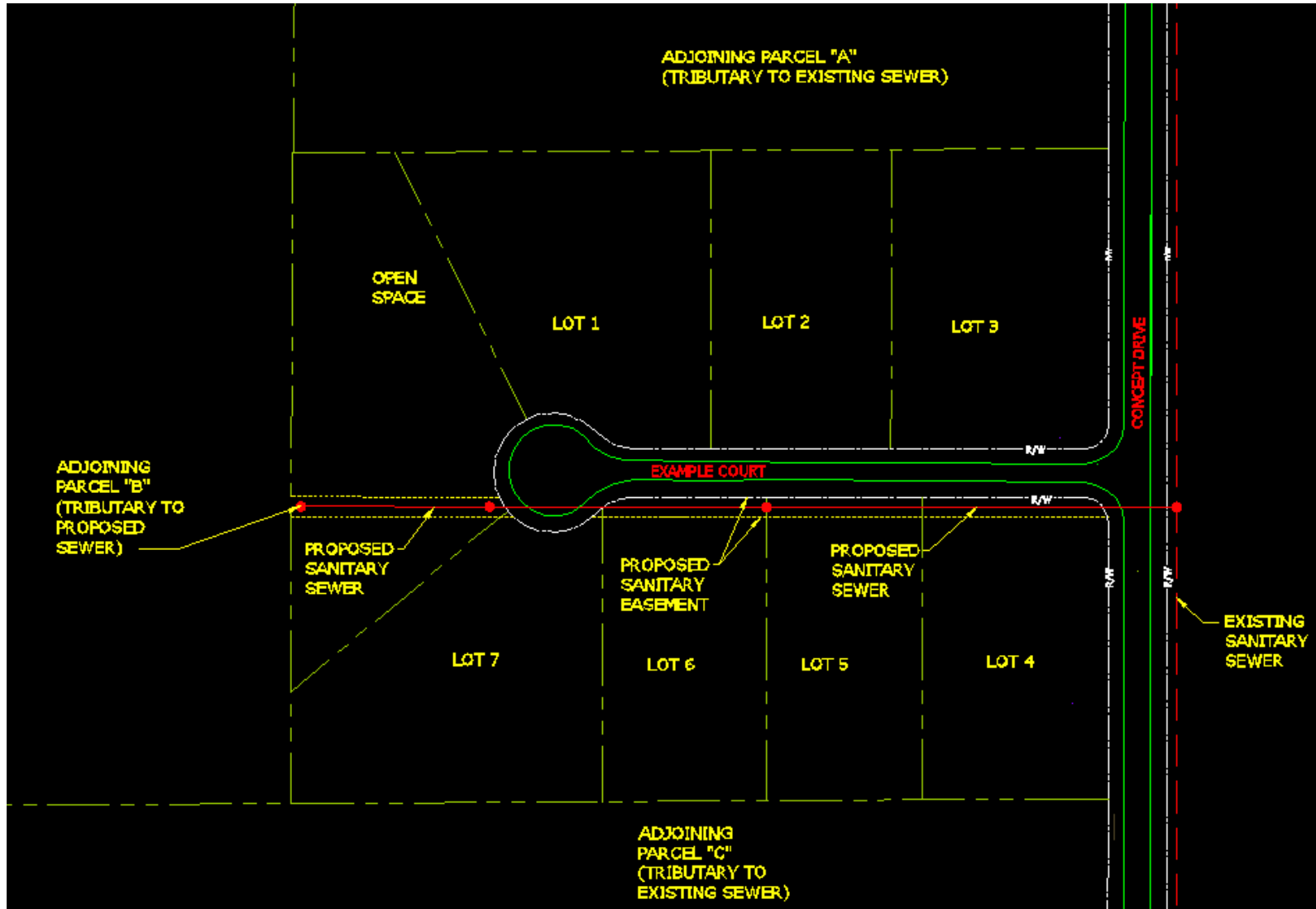
Monument Signs/Entry Features

Tree Preservation Zones (Existing and Proposed)

No-Build Zones (Existing and Proposed)

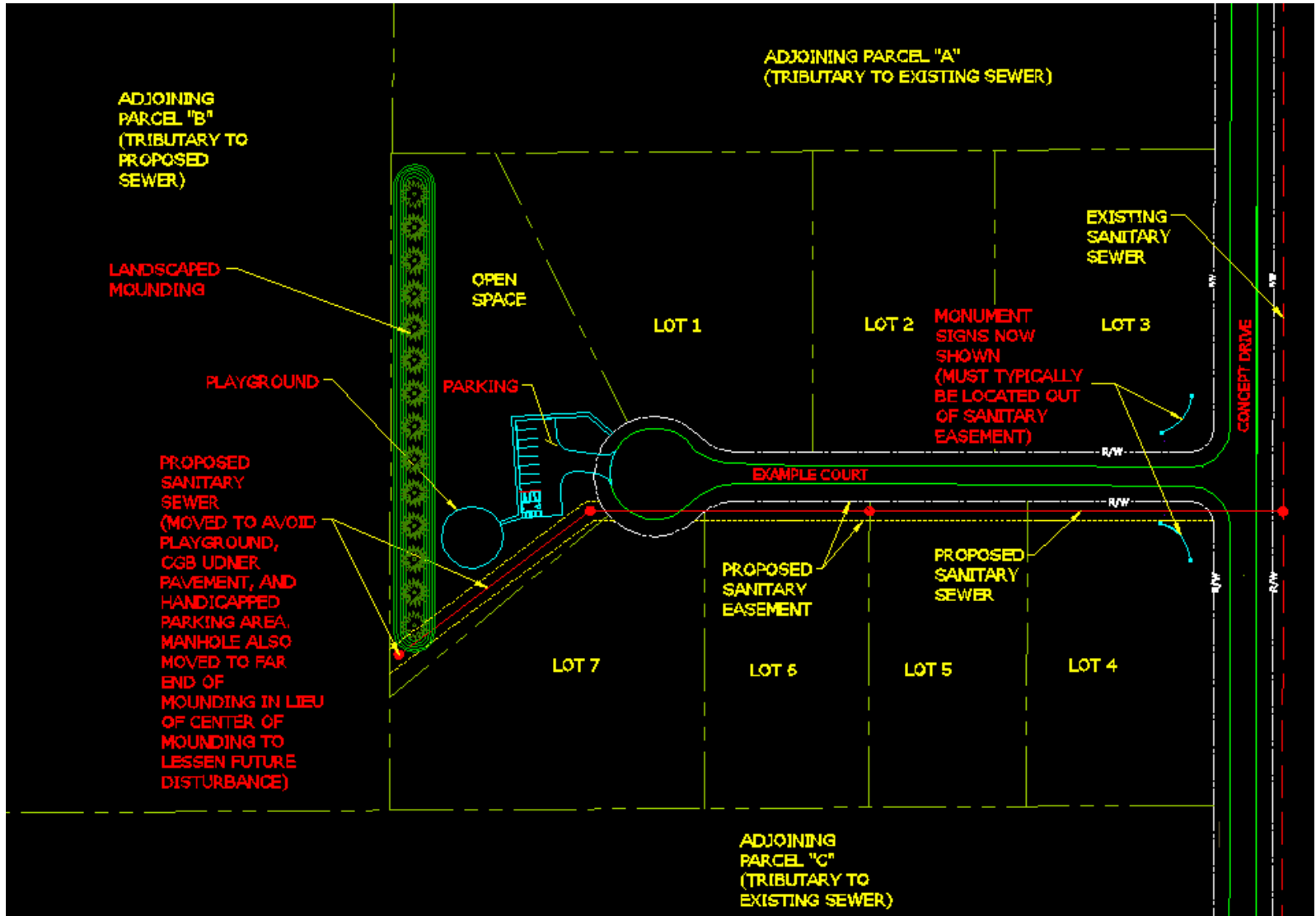
Common Comment 6 Example

(Plan Before Inclusion of Features
Found In Zoning Text)



Common Comment 6 Example

(Plan After Inclusion of Features
Found In Zoning Text)



Common Comment #7: Consult the Environmental Permits and Reports

Items to be shown on the sanitary plans (existing and proposed) may include, but are not limited to:

Riparian Buffers

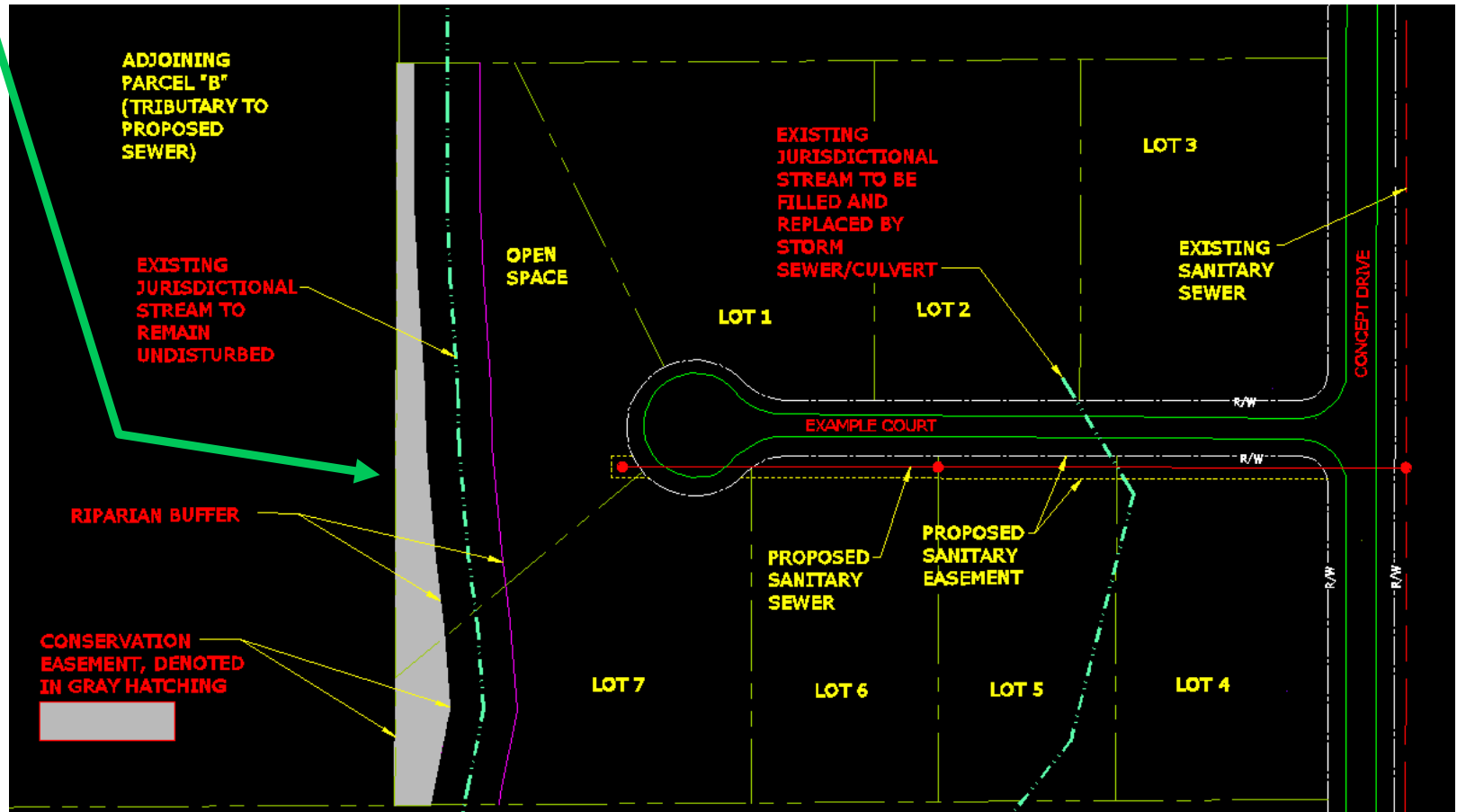
Wetland Mitigation Areas

Conservation Easements

Stream Corridor Protection Zones

Potential Pitfall: Mitigation Areas

Potential Scenario: Sewer service is required to be extended to adjoining Parcel B, inside a minimum 20' easement. The amount of acreage disturbed for a sewer extension to Parcel B was not factored into the environmental report or site layout.



Unfortunately, the conservation easement acreage shown meets exactly the amount of on-site acreage required for the permit....

Potential Pitfall: Mitigation Areas

Be sure that sanitary sewer and/or service extensions to all adjoining properties are factored into the potential disturbed acreage for wetlands and jurisdictional waters.

This includes easement widths as well.

If mitigating on-site, be sure to leave enough room to account for this additional acreage. It is not recommended to wait until detailed plan review to determine how adjoining parcels will be served.

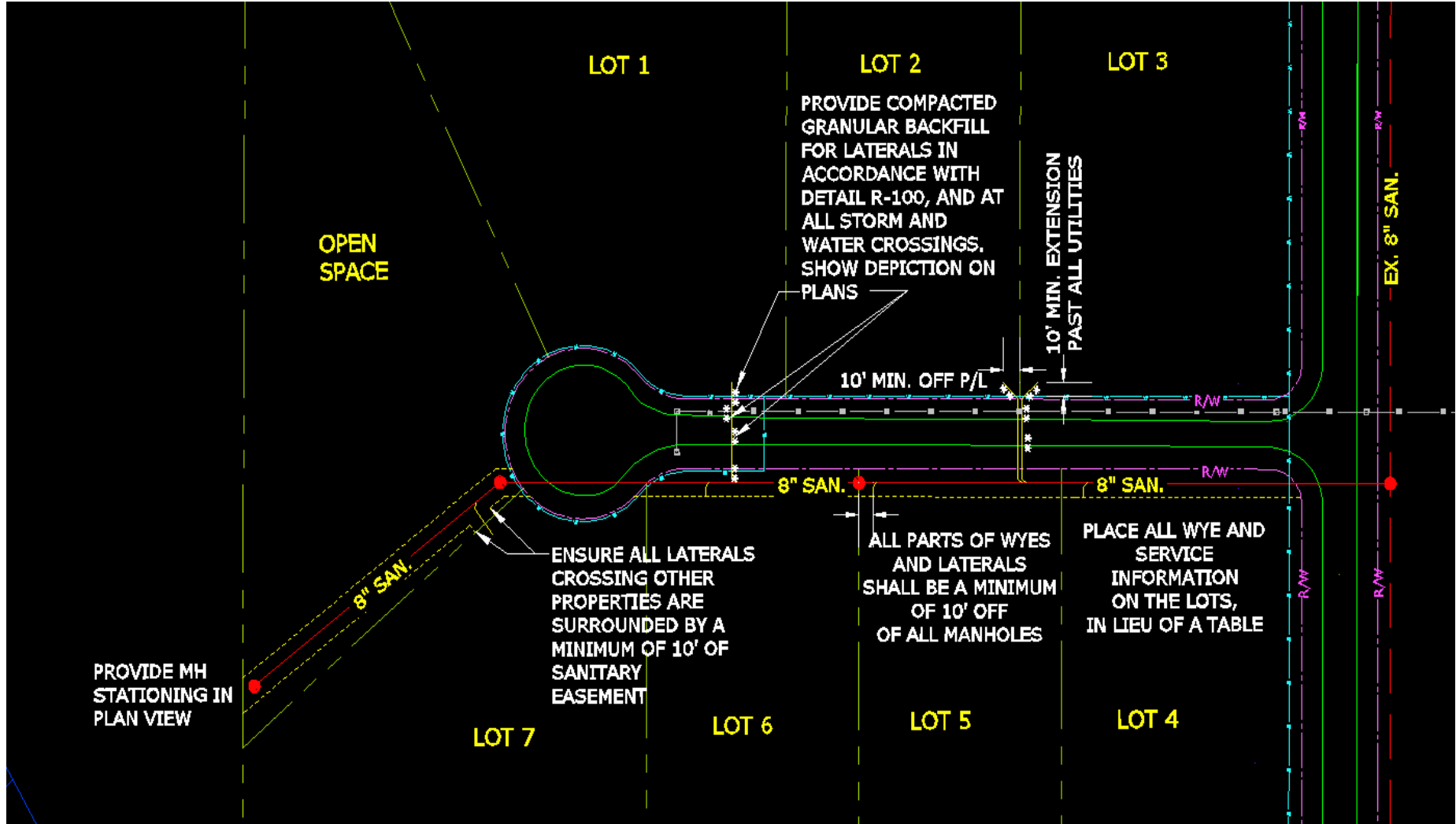
This concern appears to be particularly noteworthy in the Olentangy Watershed.

Part 4

Service Laterals

Common Comment #8

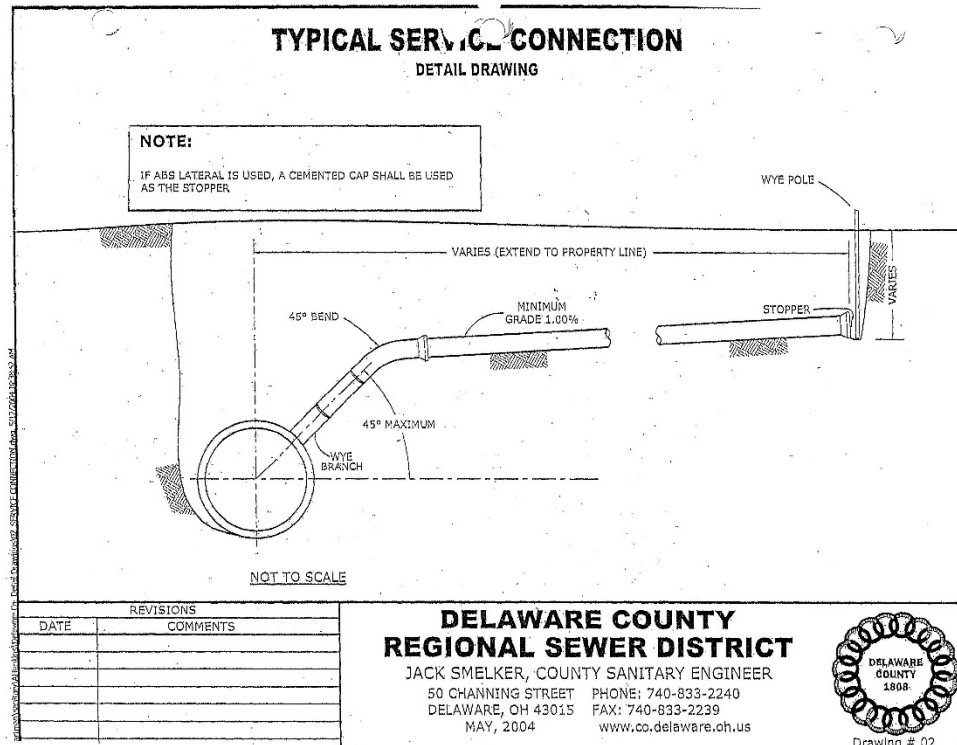
Various Sanitary Lateral Comments



Common Comment #9

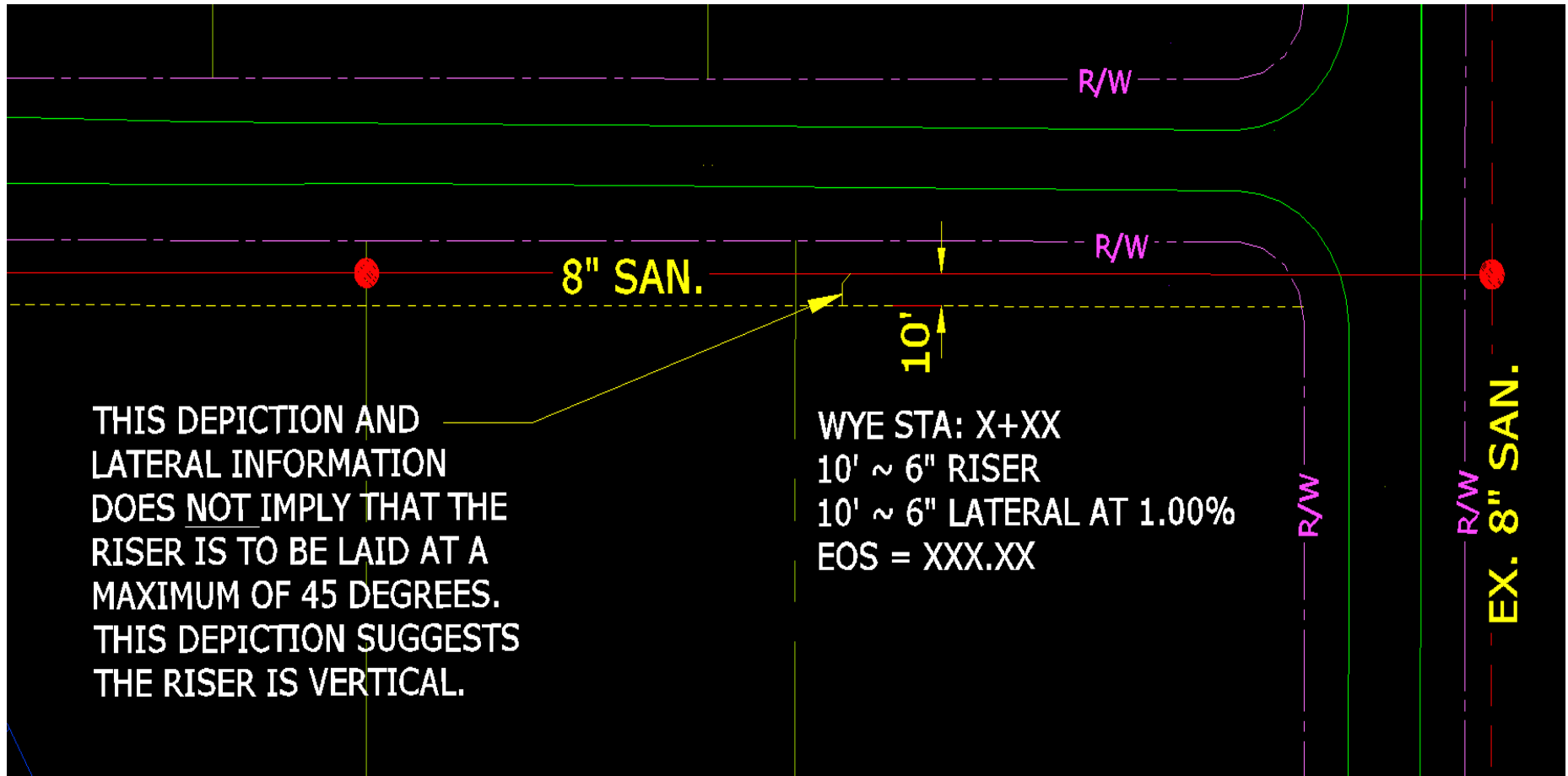
Please Ensure Riser Information Reflects a 45° Angle

Standard Drawing 02 depicts a maximum 45 degree angle for risers without concrete encasement



Common Comment #9

Please Ensure Riser Information Reflects a 45° Angle



Part 5

Miscellaneous Comments

Common Comments #10-15

#10- Be sure to depict with hatching all compacted granular backfill in the profiles in addition to denotation such as asterisks, pound symbols, and arrows.

#11-All manholes with a drop of 2' or greater require an outside drop. This includes existing manholes.

#12- All water valves, tees, bends, and backings need to be outside of the sanitary easements.

#13- The calculations may be presented in CFS. We will often also ask for an MGD column next to the Design or Total CFS. All that is necessary is an additional column with the conversion. We ask for this since the flow at the plants is measured in MGD.

#14-Please ensure that erosion control is provided on the SWPPP and/or sanitary sewer plans for the components of the work involving sanitary sewer. This includes disturbed area, sediment fence, construction entrances, etc.

#15-Please designate all easements as “Sanitary Easements” on the sanitary plans, (street plans or other), and plats.