THE TOWN OF SIMSBURY
WATER POLLUTION CONTROL AUTHORITY

GUIDANCE MANUAL

Developer's Agreement (DA)

A basic primer to assist the Developer in the preparation of documents for a DA, understanding the requirements and roles of the WPCA, the Developer and Engineer, and realistic expectations for approval.

June 9, 2021

Table of Contents

EXECUTIVE SUMMARY 1

Introduction 2

Process Flow Chart and Procedures for Sewer Main Installation by the Developer's Agreement Method .. 3

Generalized Timeline and Expectations 5

Technical and Easement Review Process 6

Fiscal Requirements 7

Technical Standards 8

Material Standards 8

Community Sewerage Agreement 9

Construction Review Process 9

Roles and Responsibilities of Various WPCA Units 11

How a Project is Accepted and the Infrastructure Turned Over to the WPCA 12

Appendices 14

- Appendix A: Procedure For Sewer Main Installation by Developer's Agreement Method 15
- Appendix B: DA Application Form 21
- Appendix C: Instructions to Developers for Submittal Requirements under a DA 23
- Appendix D: Sample Standard Developer's Agreement for Sewer 25
- Appendix E: Availability and Capacity Analysis Process 30
- Appendix F: DA Administrative Progress Checklist 32
- Appendix G: Sample Sewer Easement Documentation 34
- Appendix H: Sanitary Sewer Deposit Calculation 36
- Appendix I: Requirements for Digital Data Submission for Developer's Agreement 37
- Appendix J: Developer's Checklist for DA Application Completeness 39
- Appendix K: Pre-Application Meeting Topics 40
- Appendix L: Information Required from Developer Prior to Scheduling Pre-Construction Job Conference 41
- Appendix M: Draft Pre-Construction Job Conference Agenda 42
- Appendix N: Sewer Testing and Cleaning Specifications 45
- Appendix O: Television Inspection Requirements 51
- Appendix P: Excavation and Trenching Safety Policy 56
- Appendix Q: Cut Sheet and Stationing for Manholes 57
- Appendix R: Insurance Requirements – Sewer Installation 59
- Appendix S: Permit Application-Mainline Sewer and Sewer Lateral Connections 60
- Appendix T: Sample Certificate of Completion for Sewer 61
- Appendix U: Sample Partial Opening Form for Sewer 62

EXECUTIVE SUMMARY

The WPCA has two methods by which new sanitary sewers may be constructed. These methods are determined by who will actually pay for and perform the construction. In the case of property owners with existing development requesting sewers, the project is designed and constructed by the WPCA under the assessable method. In the case of a Developer seeking permission to construct new sewers and connecting to the WPCA system ("Developer"), the Developer is granted permission for the connection under a Developer's Agreement ("DA") and then constructs the new facilities under the watch of the WPCA.

The authority for the WPCA to establish procedures and requirements for connections to its systems is set forth in the Ordinances of The WPCA of Simsbury Relating to Sewers. All Ordinances of the WPCA may be found on the WPCA website at http://www.simsbury-ct.gov.com.

In the case of a DA where the new sewers will be turned over to the WPCA upon completion of construction, the WPCA has established technical and administrative requirements for the design and construction of the new infrastructure that is the same as if the WPCA were constructing the project itself. In other words, both the design standards and the quality of construction are monitored to the same standards, whether constructed by the WPCA or by a Developer.

The WPCA clearly recognizes the many steps that a Developer needs to take to get a project approved and constructed. This guidance manual has been prepared to assist Developers in understanding the entire process, to establish realistic time expectations, and to eliminate surprises as the process unfolds. It is the desire of the WPCA to make the process as clear and concise as possible, all the while assuring that the system to be constructed will be of a quality that protects the ratepayers of the WPCA in the future years.

At any time in the process a Developer does not feel that this guidance document is sufficiently prepared, the WPCA would be glad to receive comments on how it can be improved. Comments can be submitted to the WPCA's office at any time.

INTRODUCTION

The WPCA wishes to set forth, in detail, the steps required for a Developer to secure approval for the construction of a new sewer; to understand all financial impacts and commitments; and to fulfill all legal requirements necessary for the agreement. In addition, the roles and requirements of the WPCA during the construction and the testing of the new facilities prior to acceptance of the new facilities by the WPCA will be explained in various sections of this guidance manual.

All of the requirements to be explained in this manual are authorized by the Codes of The Town of Simsbury. This guidance manual will condense the details in these ordinances into a "how to document" and will provide backup materials in the appendices that can be shared with the Developer's design engineer and legal counsel. In case of any perceived ambiguity between the information within this guidance manual and any provision of the Codes of The Town of Simsbury, the Codes take precedence. The guidance manual has been developed with typical projects in mind. Over time, there are likely to be nuances of projects that are not covered in this manual. However, the WPCA is hopeful that the lines of communication have been clearly established such that the nuances can be quickly dealt with.

All Developers are required to attend a preliminary meeting with WPCA staff prior to the formal filing of a DA application. This meeting presents an opportunity to explain the project to the WPCA, discuss the proposed schedule, confirm the need for a capacity analysis and review any of the details within this guidance manual that will assist the Developer and its engineer in understanding the processes. To request such a meeting, the Developer should call the WPCA at 860-658-3258. The WPCA will then coordinate a meeting with the appropriate staff.

The appendices include forms, applications, and other directives that will assist the Developer and its engineer during the course of securing a DA, constructing the project and securing acceptance of the facilities by the WPCA. Please review these documents prior to initiating a DA application as it will facilitate a more complete application and shorten the overall review time. Diligence on behalf of the Developer, its engineer and the staff of the WPCA will reduce the amount of time it takes to conclude a DA. The WPCA is committed to achieving this objective with the assistance of the Developer and its engineer.

Point of contact for the WPCA during the application process will be assigned by the Superintendent. During construction of the project, the point of contact will shift to the WPCA Inspector.

PROCESS FLOW CHART AND PROCEDURES FOR SEWER MAIN INSTALLATION BY THE DEVELOPER'S AGREEMENT METHOD

Included within the appendices of this guidance manual is a detailed outline of the numerous steps required to successfully navigate the DA process for sewers. The steps within the procedures for sewers include many internal WPCA steps that a Developer and its representatives would not normally see. These have been included in order for the Developer to fully understand the requirements of the WPCA and to give the Developer an appreciation of the time that it takes for the staff to conduct its review. During the development of this guidance manual, staff has made an effort to streamline the process as much as possible while still meeting the requirements of the Town Codes.

The same detailed procedures have been condensed into a flow chart that highlights the key points of the process. At any point in the process, one can identify where a current project is and can then refer to the procedures list to see the detailed steps occurring at that time in the overall process.

DA FLOW CHART*

Pre-DA Application

Developer submits information on proposal and sewer needs to WPCA

(required) - discuss need for availability & capacity analysis

WPCA performs or arranges for availability & capacity analysis at developer's cost

If WPC Staff determines a DA is needed, proceed to DA process

NO

YES

If WPC Staff determines a DA is NOT needed, Developer obtains connection permits from WPC Staff

DA Application Process

Developer submits complete application to WPCA

WPCA process initiated:
- Accounting codes established
- Plans distributed within WPCA

Technical review of plan is conducted:**
- Is design adequate?
- Is design consistent with WPCA technical standards?
- Have approved materials been utilized?
- Is construction phased?

Concurrently, administrative review conducted:
- Calculate connection charges and reimbursable deposit costs
- Review easement documents, if applicable

WPC Staff submits review comments to Developer

Developer/engineer reviews and responds to Staff comments with revised plans and other requested documents

WPC Staff notifies Developer that plans are acceptable

Developer submits estimate of construction costs, final easement documents, co-developer information, if applicable and if Connection charges are to be financed.

WPC Staff prepares DA document

DA document executed when Construction Bonding and Inspection Bond for reimbursable costs are submitted.

Pre-Construction

Developer submits pre-construction job conference materials

WPC Staff schedules pre-construction job conference

Pre-construction job conference held

Developer secures permits for main line construction from WPC Staff

Construction

Construction initiated

Construction inspections throughout project

Pipe construction completed

Testing of completed pipe is conducted by Developer and monitored by WPC Staff

WPC Staff issues Partial Certificate of Completion and establishes dates of one-year maintenance period

Developer maintains infrastructure for one year maintenance period

Acceptance of Infrastructure

Developer conducts final testing and completes punch list items

WPC Staff inspects and issues Full Certificate of Completion

Infrastructure accepted by WPCA

Unused deposit funds returned to Developer

** For larger projects, a preliminary design meeting at 60% design stage with WPCA may be required

GENERALIZED TIMELINE AND EXPECTATIONS

Conflicts and misunderstandings can be eliminated or greatly reduced if all parties understand the processes required and the timelines normally expected. As presented here, these timelines are considered the norm and should assist all parties in establishing expectations. Some projects can be completed faster than the norm while others may take longer due to many factors, including but not limited to, the completeness of the design; compliance with the technical and material standards of the WPCA; documentation of easements and establishment of charges; and other project deposits. With the Developer and its staff seeing the complete picture, they can simultaneously execute some of the steps by different members of the Developer's team; prepare materials for the pre-construction conference at an earlier date; and select a construction contractor that can meet all of the requirements for bonding, insurance and licensing.

Step	Typical timeline
Pre-Application Meeting	1 week
Availability and Capacity analysis	1-2 weeks
Application preparation*	2 weeks
Distribution of application	2- 4 weeks(Time line for WPCA Meeting)
Technical and fiscal review	3-6 weeks (highly dependent upon adequacy of original submittal and complexity of the project)
Execution of DA	2 weeks
Developer submits job conference materials*	2 weeks
Job conference scheduled and held	1 to 2 weeks
Permit for construction secured	1 week
Overall timeline from initiation of DA process to the start of construction	**14 to 20 weeks**
Construction of project	Job specific
Final inspection/approval of completed project and issuance of partial Certificate of Completion	3 weeks
One-year maintenance period	1 year
Issuance of full Certificate of Completion and acceptance of project by WPCA and return unused deposit	3 to 6 weeks after completion of final paving

*Strictly within the control of the Developer.

TECHNICAL AND EASEMENT REVIEW PROCESS

Subsequent to the submittal of a DA application WPCA staff will forward the application to the Superintendent. The Superintendent conducts an initial technical review and may forward copies of the construction plans to other staff members for further review. The WPCA will compile all of the comments and submit one review letter and one set of construction plans with comments back to the Developer and the Developer's engineer for responses.

The technical review will cover the following items:

- Is the design consistent with the WPCA technical standards? (more on this to come later)
- Does the design reflect the use of only WPCA approved materials? (more on this to come later)
- Has the service area of the infrastructure been adequately identified, including all future upstream service areas, in order to properly size the main sewer lines? Where WPCA will assume ownership at a later date, the facilities must be sized to provide capacity for not only the development under consideration, but also for other areas that logically should be or could be connected in the future. To this end, the Developer's engineer should submit, as part of the application, a service area map and flow rate projections that identifies other properties that can potentially be serviced by this project.
- Has a determination been made that the downstream facilities have adequate capacity to accept the new flows without any surcharging or overflows? It is possible that some downstream improvements may be required in order to serve the new development.

The WPCA will also:

- Determine if easements are necessary for both the construction and future maintenance of the infrastructure, and if so, that proper documentation of the easements are submitted. The WPCA will forward these to the Developer and its attorney for a response if necessary. Upon receipt of satisfactory, signed documents, the WPCA will file the easements on the municipal land records soon after the DA has been executed.
- The WPCA will review the service area and the project and determine what connection charges will be levied on the project.

FISCAL REQUIREMENTS

At the time of the filing of the DA application, construction and inspection bonding and proper insurance documents are required as part of the application. The submittal of these items is a prerequisite for the signature of the authorized WPCA representative on the DA.

The following is a description of the potential charges and an explanation as to how they are calculated. Note that all such charges may not be applicable to each project. The amount of the charges will be calculated and notification sent to the Developer during the review process of the DA application.

Reimbursement of WPCA staff salaries and expenses: Utilizing a standard spreadsheet for the calculations, the Superintendent will calculate the expected costs to be incurred by the WPCA that are to be recovered from the Developer.

5% retainage: The costs used to determine a 5% retainage is predicated on the estimate of construction costs provided by the Developer and reviewed/modified per the WPCA. At the end of the one-year maintenance period, any remaining funds from the deposit for reimbursement of staff expenses and the 5% retainage (if unused) are returned to the Developer upon acceptance of the infrastructure by the Town.

Deferred Assessment Charges: This assessment may be required if charges from a previous project were deferred because the previous project was increased in size to handle the flows from a proposed development under the DA. It is unlikely that the Developer would know of these potential charges until such time as the DA application was being reviewed. If applicable, the Developer will be informed of these charges through the WPCA.

Facility Connection Charges: Connection charges may be paid at the time of execution of the DA or deferred until the time that the house connection permits are issued. The FCC policy can be located on the Town website at:

http://www.simsbury-ct.gov/sites/simsburyct/files/file/file/facility_connection_charge_policy_1.pdf

The Developer can submit an application to the WPCA for financing of the FCC for larger projects to be owned by the developer.

TECHNICAL STANDARDS

Technical Standards - Sewer

Under the Connecticut General Statutes and in other New England states as well, the State environmental regulatory agency can demand the review and approval of the design of sewerage systems. In order to properly design, construct, maintain and operate wastewater systems and to establish consistency in the design of sewerage systems (whether in Connecticut or any other New England state), the New England Interstate Water Pollution Control Commission, a compact of the six New England states as well as New York, has developed the "Guides for the Design of Wastewater Treatment Works". Commonly known as TR-16 (Technical Report # 16), the guide is utilized by all wastewater design professionals, including consulting engineers, municipal officials, state regulators in all New England states and EPA Region 1 as the standard to which designs are developed. For clarity, TR-16 not only covers wastewater treatment systems, but it also covers sanitary sewer/wastewater collection systems as well as wastewater pump stations.

The WPCA has adopted TR-16 as the technical guide for all sewerage systems that are to be a part of or connected to the WPCA sewerage system, whether designed directly for the WPCA or designed by others. The WPCA has also established more specific standards in key areas of concern for the WPCA. The more specific technical standards can be found in the "Sanitary Sewer Installation Manual".

MATERIAL STANDARDS

The overall quality and longevity of any sewerage system is a combination of the design, the quality of construction and the quality of the materials utilized. Longevity is a critical issue for any municipality in the development of its wastewater infrastructure, which is often the most expensive capital undertaking of any infrastructure that a municipality pursues. Due to its high capital expense and expected design life of over 50 years for sanitary sewers, the materials utilized in construction are critical to achieving a long design life. To this end, and similar to the technical standards, the WPCA has adopted a list of specific materials required to be utilized for all sewerage systems that are part of the WPCA system, whether constructed by the WPCA or constructed by others. The material standards can be found in the appendices.

COMMUNITY SEWERAGE AGREEMENT

Not all portions of a sewerage system to be built by a Developer are required to be turned over to the WPCA for ownership and future operation and maintenance. For example, in the case of a large condominium project where there are private interior roads, the ownership of the sewers and any associated pump station(s), if necessary, will most likely remain with the Developer during construction and with the condominium association thereafter. In these cases, state statute (CGS Section 7-246f) requires the signing of a community sewerage agreement between the Developer and the WPCA. Whether all or portions of a proposed sewerage system are to be turned over to the Town, the WPCA requires that all sewerage systems be constructed to the same technical and material standards as noted above. If applicable, during the technical review of the DA application, discussions will occur with the Developer about the need for a community sewerage agreement.

CONSTRUCTION REVIEW PROCESS

Following the signing of the DA, the Developer shall submit all of the job conference requirements applicable to the specific project to the inspector prior to the scheduling of the pre-construction job conference. See the appendices for "Pre-Construction Job Conference Submittal Requirements" for the list of documents needed for the job conference. Upon receipt of the documents from the Developer by the inspector, the inspector will schedule the job conference. Also invited to the job conference will be the Developer, its construction contractor, the WPCA Engineer or Director of Public Works, other utilities as necessary.

Items included in the agenda for the job conference include, but are not limited to, television inspection standards (sewer); air test standards (sewers); directives for excavation and trench safety; insurance and bonding requirements of the construction contractor; WPCA excavation permits; "Call Before You Dig" assigned number; copies of plumbing licenses of individuals performing the pipe installation; the name and license of the surveyor conducting the stakeout; the identification of the Developer's OSHA competent person; proposed phasing of construction, if any; and the specific street addresses of future connections to the sewer.

With an early understanding of what is covered at the pre-construction job conference and knowledge of who will be attending, the Developer and its construction contractor can prepare documentation for the conference well in advance of the establishment of the conference date and can submit all of the required documents shortly after the signing of the DA.

DOCUMENTS TO BE PREPARED BY THE DEVELOPER AND SUBMITTED TO THE WPCA

Below is a list of documents to be prepared by the Developer or the Developer's representatives and supplied to the WPCA at various steps in the overall process.

Pre-Application Period:

- Documentation for availability and capacity analysis
- Map of service area

Application Period:

- DA application
- Two sets of stamped construction plans of the infrastructure; three sets if a pump station is included
- Documentation of Planning and Zoning approval of the development
- Two sets of revised construction plans to show changes per comments from WPCA
- Two sets of final construction plans after the WPCA accepts the revised construction plans.
- One CD of construction plans in AutoCAD
- Initial easement documentation if required
- Determination of potential connection charges

Permit Agreement Period:

- Estimate of construction costs of the infrastructure
- Determination if connection charges are to be financed
- Deposits for WPCA incurred costs
- Copies of final easements and tax conveyance form

Pre-Construction Job Conference:

- Evidence of proper insurance from contractor
- Evidence of bonding from contractor
- Copies of municipal and/or state excavation permits
- "Call Before You Dig" assigned numbers
- Contractor's emergency contact information
- Copies of contractor's employees P-1 or P-7 licenses
- Name of surveyor and surveyor's license number
- Identity of contractor's OSHA competent person
- Addresses of future connections to the infrastructure
- Plans for phasing of the construction, if applicable
- Planned start date for construction

Construction Period:

- Application for main line construction permit, after pre-construction job conference
- Line and grade stake out from surveyor including cut sheets

Acceptance Period:

For sewers:

- CDs of closed circuit television inspection of sewer
- One CD of As Built plans in AutoCAD
- One set of Mylars
- One set of final As Built plans
- Low-pressure air test documentation

- Additional deposit for WPCA incurred costs, if due
- Facility connection charges, if Developer is making connections and such charges are due

Project Closeout Period Following One Year Maintenance Period:

- CDs of closed circuit television inspection of sewer

DOCUMENTS TO BE PREPARED BY THE WPCA AND OTHER ACTIONS REQUIRED BY THE WPCA

Below is a list of documents to be prepared by the WPCA and supplied to the Developer at various steps in the overall process and actions required by the WPCA.

Pre-Application Period:

- WPCA determines if capacity analysis is required

Application Period:

- Superintendent reviews application materials upon submittal and notifies Developer if any are missing

Review Period:

- Compilation of all review comments on the construction plans
- Determination if a public hearing is required
- Notification of connection charges
- Comments on easement documents, if applicable
- Conditional approval letter

Permit Agreement Period:

- Draft of DA
- Request for deposit of WPCA incurred costs and any connection charges
- One copy of original DA upon execution

Pre-Construction Job Conference Period:

- Date of pre-construction job conference
- Minutes of job conference

Acceptance Period:

- Notice of deficiency of deposit, if any, at beginning of maintenance period
- Notification that connections can be made to infrastructure
- Punch list of items for correction on the project
- Release of any unused funds back to Developer after acceptance of the infrastructure

ROLES AND RESPONSIBILITIES OF VARIOUS WPCA EMPLOYEES

During the course of seeking approval of a DA and constructing the facilities to ultimately be turned over to the WPCA, a Developer and its consultants will have interactions with the WPCA. An

understanding of who is in charge of the project at the WPCA and the specific WPCA employee that Developers should be interacting with at various steps of the DA process is essential. To assist with an understanding within the WPCA that Developers will have contact with; a brief description of each is provided below along with when in the process the Developer will likely have contact with them.

WPCA Clerk: Located at 36 Drake Hill Road, Simsbury, the WPCA Clerk is involved in administrative steps of the process. As specified in the procedures, the WPCA Clerk is the entity to receive all DA applications and will have numerous contacts with the Developer during the review and signature of the DA and will assist with the close out of the project documents. During the actual construction stage, the WPCA Clerk has no role. The telephone number for the WPCA Clerk is 860-658-3258.

Superintendent: Located at 36 Drake Hill Road, Simsbury, the Superintendent is responsible for determining all connection charges due to the WPCA from the Developer; reviewing the adequacy of the easements; and filing such documents on the land records once the DA has been signed. The Superintendent's involvement with the project should be minimal after the signing of the DA.

Inspector: L ocated at 36 Drake Hill Road, Simsbury, the Inspector is involved throughout the entire process. The Inspector is the primary contact person for the Developer. The telephone number for any Inspector is 860-658-3258. The Inspector reviews sewer pump station construction drawings and specifications. The inspector also reviews and approves submittals for all equipment and components within the pump stations. Subsequent to constructing the pump station, the Inspector will perform a final inspection to ensure the pump station was constructed to Town standards. This includes observing the generator load bank test, pump controls and alarm checkout, if applicable.

HOW A PROJECT IS ACCEPTED AND THE INFRASTRUCTURE TURNED OVER TO THE WPCA

Following the completion of construction of the infrastructure, there is a specific process to be followed that will determine the acceptance of the infrastructure by the WPCA. The process is summarized here. To see the specific steps in more detail, please refer to the "General Requirements for Sanitary Sewer Installation".

WPCA ACCEPTANCE OF SEWER MAIN

Upon completion of construction, the Developer's contractor has the sewer main inspected by closed circuit TV and performs a low-pressure air test under the supervision of the WPCA's Inspector. Upon review of the CCTV tape and a review of the low pressure air test results, the Inspector makes a recommendation to conditionally approve the mains. The WPCA then issues a partial Certificate of Completion provided the 5% retainage is held by the WPCA. The WPCA determines the date of the start of the maintenance period in the partial Certificate of Completion. Once the partial Certificate of Completion is issued, connections can be made to the sewer during the one year maintenance period.

During the one year maintenance period, the Developer is responsible for all maintenance of the infrastructure. At the end of the one year maintenance period, the Developer calls WPCA Inspector for a final inspection.

Following the one year maintenance period, the Developer conducts a second closed circuit TV inspection of the sewer and upon review of the CCTV tape, the WPCA's Inspector recommends acceptance of the infrastructure. Staff then issues a full Certificate of Completion upon which the Town staff recommends acceptance of the infrastructure to the WPCA.

Upon a positive vote of the WPCA, the infrastructure is accepted, ownership retained by the Town, and any remaining amounts of deposits and retainage funds are returned to the Developer.

APPENDICES

Appendix A: Procedure For Sewer Main Installation By Developer's Agreement Method

Pre-Application Process

1. Developer downloads the WPCA's Guidance Manual on the requirements of a DA from the Town website.

2. Developer is required to conduct a preliminary meeting with appropriate WPCA staff to discuss the project, the application process and the necessity of a capacity analysis of downstream facilities (determination of capacity analysis is made by WPCA). Developer shall contact WPCA by phone at 860-658-3258 to schedule the preliminary meeting. Developer shall supply preliminary site plan/layout, service area, sewer flow calculations, and anticipated construction schedule.

3. If a capacity analysis is required, the Developer shall follow the procedures outlined in the "Availability and Capacity Analysis by the WPCA" in Appendix E. The cost of the analysis will vary depending upon the complexity of the proposed project and the use of the demand model. The Developer is responsible for the costs incurred by the WPCA in conducting the analysis. The Developer will be required to deposit the estimated costs with the WPCA prior to the analysis moving forward as specified in Appendix E of the Guidance Manual for DAs.

Application Process

4. In cases of large or complex projects, the Developer should consider submitting a preliminary design review at the 60% design stage prior to the submittal of a DA application.

5. Developer shall submit a completed DA Application Package to the WPCA Clerk. Application package includes certified deposit check of $150, made out to The Town of Simsbury; Two (2) sets of Connecticut Professional Engineer stamped construction plan and profile drawings; documentation of municipal planning and zoning approval of the project and draft easement documents, if applicable.

6. WPCA Clerk logs application and forwards application package to Superintendent.

7. WPCA Clerk creates administrative checklist for use throughout the process.

8. Superintendent reviews application package for completeness and technical thoroughness and notifies Developer if any documents are missing. If application package is seriously deficient, Superintendent notifies Developer that review will not commence until deficiencies are corrected.

9. WPCA Clerk creates project code and emails project code to Superintendent and Inspector.

10. WPCA Clerk completes cash receipt memo and sends the original memo with a copy of check(s) to Finance Department. WPCA Clerk must provide copy of memo with original check(s) to Finance for deposit.

11. If required, the Superintendent distributes construction plans to Engineering and Highway for peer review and establishes time schedule for submittal of review comments back to Superintendent. Superintendent also distributes easement documents, if applicable, to town staff for review and establishes time schedule for submittal of review comments.

Review Process

12. Superintendent and Inspector conducts own technical review of the proposed sewerage system including determination of service area; review of capacity analysis, adequacy of design against WPCA adopted technical standards; and use of only Town approved materials.

13. Developer makes determination if there will be co-Developers. If so, Developer submits cost sharing agreement to WPCA Clerk and Superintendent.

14. If needed, Superintendent makes recommendation to the WPCA if public hearing is to be held. If WPCA concurs that public hearing is required, WPCA Clerk completes the public hearing process.

15. Comments are sent back to the Superintendent from Inspector, Engineering and within the specified schedule.

16. Superintendent reviews all comments from peer reviews and forwards a compiled comment letter to Developer's Design Engineer with a copy to the Developer for requested revisions to the plans as well as copies back to Inspector, Engineering and Highway.

17. Superintendent determines if connection charges, and/or deferred assessments are due; determines if there are any other affected properties; and issues memo to developer on findings.

18. Superintendent reviews easement documentation and easement map, if applicable, and submits comments back to Developer with a copy to the Town Engineer of any further documentation required.

19. Developer submits revised easement documentation to Superintendent (one signed and notarized original and one copy of applicable easement documents, one signed and stamped Mylar easement map, include an electronic copy in AutoCAD format).

20. Developer informs Superintendent whether connection charges will be financed or not.

21. Developer's Design Engineer submits two sets of revised plans to the Superintendent that address all comments as well as including appropriate notations on the plans ("starred" properties) if the connection charges are to be financed. Submittal shall include a listing of all of the WPCA comments and the changes made to each comment. Superintendent reviews and either determines plans are satisfactory or returns plans to Developer's Design Engineer with additional comments. Superintendent confers with peer reviewers as necessary to assure that comments have been adequately addressed.

22. Once plans are satisfactory, Superintendent prepares conditional approval letter. Upon signing of letter, Superintendent sends conditional approval letter to Developer's Design Engineer for preparation of final plans, to include appropriate signatures of WPCA official and Developer.

23. Superintendent requests from Developer a construction cost breakdown of the project in a

manner similar to Appendix H: Sanitary Sewer Deposit Calculation, in order to calculate retainage and bond amount.

24. Developer submits construction cost breakdown to Superintendent and Superintendent reviews and modifies as necessary if construction cost breakdown was unreasonable based upon Town experience.

25. Developer's Design Engineer provides two (2) sets of final construction plans; one (1) Mylar set; and a CD containing the AutoCAD drawing file (.dwg) consistent with WPCA standards them to the WPCA. Construction plans shall be stamped by a Connecticut Licensed Professional Engineer.

26. Superintendent distributes final construction plans and Project Summary Plan (internal WPCA document).

Permit-Agreement

27. Superintendent estimates WPCA direct and indirect costs associated with the DA for the purpose of calculating the additional deposit for the reimbursement of staff time expended on the project as well as the 5% construction retainage. Superintendent uses standard spreadsheet for calculations including average hourly rates for WPCA personnel classifications.

28. Superintendent forwards documentation for deposit due to WPCA Clerk. Superintendent drafts the DA utilizing approved format based upon relevant information from Developer.

29. Superintendent sends letter informing the Developer that the agreement is ready to be signed. Developer and Superintendent agree on either a meeting or mail delivery of documents to secure signatures.

30. Developer delivers two signed copies of DA to WPCA Clerk (signatures of the Developer are required and need to be notarized.) WPCA Chairman signs DA on behalf of the WPCA. One original fully executed copy is given to the Developer and the WPCA Clerk retains the other original executed copy.

31. WPCA Clerk notifies Town Staff that the DA has been fully executed and forwards electronic copy of DA to Superintendent and Inspector.

32. WPCA Clerk files final easement documents on the land records if required.

Pre-Construction

33. The Developer's job conference requirements include documentation of insurance requirements; bonding requirements; WPCA and Highway excavation permits; Call Before You Dig assigned number; Contractor's emergency contact information; Contractor's Connecticut P-1 or P-7 licenses; all subcontractors and employees appropriate plumbing licenses (P-2 to P-6) name of surveyor and Connecticut professional license number doing stake outs; identity of Developer's Contractor OSHA competent person; and phasing of construction and utilization of portions of the system prior to completion, if applicable.

34. Upon receipt of documents for pre-construction job conference by Inspector from Developer,

Inspector reviews documents for completeness and thoroughness and informs Developer of any deficiencies. Once all documents are received in satisfactory form, Inspector schedules pre-construction meeting and prepares agenda.

35. Inspector conducts pre-construction job conference and verifies that all requirements have been complied with.

36. A start date for construction activity will be established at the pre-construction job conference. Developer shall notify Inspector at a minimum of 48 hours in advance if date is modified.

37. Inspector prepares meeting minutes and distributes to all attendees.

38. Developer's Contractor will obtain main line permit from WPCA Clerk at 36 Drake Hill Road, Simsbury prior to start of construction.

Construction

39. Developer's Contractor provides line and grade stakeout and cut sheets per the Town's standard.

40. Developer's Contractor commences construction with Inspector present. Throughout construction, Inspector is point of contact with Developer's contractor.

41. Inspector converses with Superintendent as necessary during construction.

42. Inspector documents the work each day and secures sign off from Developer's contractor as to the time spent on the job site.

43. Inspector ensures sewer pipe elevations are per approved plans and installation of sewer is per Town standards. Main line sewer shall include capped and staked laterals to street line or easement line.

44. Inspector ensures there is adequate compaction of trench backfill up to and including road base per contract specifications

WPCA Acceptance of Sewer Main

45. Upon complete installation of the sewer main and appurtenances, the Developer's Contractor shall have the sewer main inspected by closed circuit TV for defects and the presence of debris. If debris is found in the pipe, then the Developer's Contractor shall be responsible for cleaning the sewer main. Inspector can require re-televising line if cleaning was extensive.

46. Upon successful cleaning of the sewer main, the Developer's Contractor shall perform a low pressure air test per Town standards as specified in the Appendix ??. This work is to be overseen by the Inspector.

47. Upon passing the low-pressure air test, the Inspector deems the sewer main acceptable for lateral connections and drafts a partial Certificate of Completion for signature by the Superintendent. Partial Certificate of Completion may be for either the full system or a portion of the system and may reflect construction sequencing.

48. Superintendent sends partial Certificate of Completion to WPCA. Superintendent will

prepare final computations of costs and compare to deposit amount. If additional funds are due to the Town, WPCA Clerk will create bill and mail bill to Developer. A copy of the bill will be provided to the Inspector.

49. When WPCA Clerk confirms receipt of payment, Superintendent provides final signature of partial Certificate of Completion and forwards original certificate to the WPCA Clerk.

50. WPCA Inspector completes lateral information on construction plans.

51. WPCA Inspector (survey) performs final measure; disk and field notes to produce record plan; and update GIS data base.

52. The WPCA Clerk notifies the Developer that lateral connection permits may now be applied for and that the one year maintenance period has begun from the date of inspection.

Lateral Connections to Main

53. When lateral connections are requested, WPCA Clerk collects any outstanding connection charges, from whoever is seeking permission to make connection (Developer or Property Owner).

54. WPCA Clerk issues permits for house connections to qualified contractor(s).

55. Inspector inspects and sketches house connection installations; sketches are scanned into database.

Project Closeout When Roadway Pavement is Completed within One Year Maintenance Period

56. The Developer performs repairs for defects of the sewer main for the one-year maintenance period.

57. After the end of the one-year maintenance period, the Developer calls 860-658-3258 to schedule a final inspection. The sewer main must be in acceptable condition (as determined by Inspector) for the main to be recommended for acceptance by the WPCA.

58. Inspector develops a “punch list”, if necessary, and sends “punch list” to the Developer with copy to Superintendent.

59. When the Developer’s contractor completes the “punch list” items, Inspector will verify the work is complete.

60. Developer is then responsible for performing a closed circuit TV inspection in the presence of Inspector.

61. Inspector reviews the CCTV and determines if the sewer is acceptable. Inspector then notifies Superintendent that sewer is acceptable.

62. Superintendent sends a letter to the WPCA for acceptance of the sewer, verifies that all easements have been finalized and filed on the land records.

63. Superintendent signs off on the final Certificate of Completion and sends it to the Developer.

64. WPCA Clerk reconciles all WPCA project related costs and informs Superintendent that either unused funds could be released or that additional funds are due to the WPCA. If additional funds are due to the WPCA, WPCA Clerk will create a bill and mail bill to Developer.

65. When the Certificate of Completion is finalized confirming that all funds due, if any, have been paid, the WPCA Clerk prepares an agenda item to WPCA for acceptance of the sewer main into the Town's sewer system.

66. Upon WPCA Board vote to accept the sewer, WPCA Clerk informs Finance who then releases any unused funds to the Developer.

Project Closeout When Roadway Pavement is Not Completed within One Year Maintenance Period

67. All steps above in the Project Closeout section are postponed until such time as the roadway paving has been completed.

Appendix B: DA Application Form

Developer's Permit Agreement Application Form

Date received by WPCA:_____

To: Town of Simsbury
Water Pollution Control Authority
36 Drake Hill Road
Simsbury, CT 06070

Attn: WPCA Clerk

The undersigned property owner of record (hereinafter known as the "Developer") requests permission to construct a Sanitary Sewer under a Developer's Agreement to serve a subdivision or project entitled _____ comprised of___lots,_____dwelling units and for commercial or industrial development only_____acres located at _____ (address). Enclosed, please find a deposit to cover preliminary engineering and capacity review of$150 for Sanitary Sewer.

_____**Check Number**

It is understood that in the event the undersigned developer does not execute the agreement(s) within six months of notice of its availability for signature, the applicable deposit shall be forfeited to The Simsbury Water Pollution Control Authority.

Owner		**Co-Developer's Information (if applicable)**	
Owner's name:		Co-Developer's name:	
Mailing Address:		Mailing Address:	
Telephone:		Telephone:	
Owner's written consent to the filing of the application (sign below):			

Statement of Accuracy and Permission: I hereby certify that all information submitted with this application is true and accurate to the best of my knowledge. The applicant understands that this application is to be considered complete only when all information and documents required by the Town have been submitted.

_____	_____	_____
Date	Printed name of Owner	Signature of Owner

Appendix C: Instructions to Developers for Submittal Requirements under a DA

Instructions to Developers for Submittal Requirements under a Developer's Permit-Agreement (DA)

The Town of Simsbury WPCA requires the following items for processing a Developer's Agreement for Sanitary sewers.

Pre-Application Meeting:

The Town of Simsbury WPCA requires a pre-application meeting to discuss the overall process, expected timelines, and determination of need for capacity analysis.

Initial Application Submittal:

1. DA Application form (attached);
2. Check for $150 deposit design and capacity review;
3. Two (2) sets of plans depicting all proposed underground utilities;
4. Disk or CD containing AutoCad.dxf and .dwg files which identify the property corners of the subject parcel(s) or lots appearing on the subdivision plan by the proper coordinates on the Connecticut State Plane Coordinate System for use on our Geographic Information Management System;
5. Draft easement document and plan, *if required*; and

If a public hearing is required for a developer's project, The WPCA will notify the developer and schedule a hearing.

Final Submittal prior to DA Execution:

Following staff review, and upon the WPCA's **Conditional Approval** of the proposed facilities, the following items are required:

1. Two (2) sets of revised plans including any phased construction documentation;
2. Disk or CD containing an AutoCad .dwg file **showing the latest revisions to the proposed WPCA facilities**;
3. Final easement document and plan, if required (one signed and notarized original, one copy signed and stamped);
4. Estimate of construction costs of final facilities; and
5. Payment of deposit and any applicable charges to The Town of Simsbury and signatures of the Developer and Contractor on the DA.

Preconstruction Submittal:

Upon execution of the DA with the Town, a pre-construction conference is required. The Developer must submit the following items PRIOR to the scheduling of a pre-construction conference:

- Contractor's name & address
- Contractor's certificate of insurance
- Copies of WPCA or State excavation permits
- Call Before You dig assigned number
- Contractor's emergency contact information
- Copies of Contractor's P-1 or P-7 license
- All subcontractors and employees appropriate plumbing licenses
- List of materials and manufacturers to be installed
- Name of surveyor and license number
- Identity of contractor's OSHA-competent person
- Phasing plan, if applicable

Appendix D: Sample Standard Developer's Agreement for Sewer

TOWN OF SIMSBURY
WATER POLLUTION CONTROL AUTHORITY

PERMIT-AGREEMENT
FOR CONSTRUCTION OF SANITARY SEWERS BY DEVELOPER

By and between the Town of Simsbury, a municipal corporation having its corporate limits within the County of Hartford, State of Connecticut, acting herein by its Water Pollution Control Authority hereinafter designated the TOWN, and

[Insert name and address of developer]

owner or owners of property to be served in whole or in part by the proposed sewers hereinafter described, and the heirs, executors, administrators, successors and assigns of said owner or owners, hereinafter designated the DEVELOPER, made as of _____ , 20__ .

WHEREAS, the DEVELOPER has requested from the TOWN a permit to construct a sewer at the DEVELOPER'S own expense to serve property owned by the DEVELOPER and has requested the TOWN to accept the sewer when completed and to incorporate it into the TOWN'S public sewer system.

WHEREAS, the sewers or drains and any appurtenances referred to above and hereinafter designated the SEWER are shown on plans designated:

[Insert plan name and date of adopted version]

WHEREAS, the plans for the sewers or drains and any appurtenances relating to said sewers or drains, hereinafter designated the SEWER, to which this Permit-Agreement pertains have been approved by the designated agent of the Water Pollution Control Authority and hereby incorporated in and made part of this Permit-Agreement.

WHEREAS, the SEWER is to be completed within _____ of the above date of the Permit Agreement.

WHEREAS, the proposed SEWER will serve _____ *(enter number and type of development, i.e., residential* dwelling units*, square feet of office, etc. Insert information that will be used to calculate the Facility Connection Charge).*

At the time of application for a Connection Permit the Facility Connection Charge of $ ____ per unit will be due, in addition to the Connection Permit fee of $ ____.

WHEREAS, the TOWN is willing to issue a permit to the DEVELOPER to construct the sewer at the DEVELOPER'S own expense and is willing to accept the SEWER when completed and incorporate it into the TOWN'S public sewer system, so long as all conditions and requirements of this Permit Agreement are fully complied with by the DEVELOPER.

Now, therefore, in consideration of the above premises and the agreements and commitments hereinafter following, the parties do hereby agree as follows:

1. The TOWN agrees to permit the DEVELOPER, through a licensed drain layer employed by him to construct the SEWER at the DEVELOPER'S own expense and, subject to the terms and conditions herein contained, to accept the SEWER and incorporate the same into the TOWN's public sewer system.

2. The DEVELOPER agrees that, in consideration thereof, he will have the SEWER constructed complete in every detail within the time stipulated above and in good and proper manner in accordance with specifications and practices as used by said TOWN and approved by the Water Pollution Control Authority in accordance with the terms of a regulation adopted October 25, 1982, entitled "Sewer Use Rules and Regulations Ordinance: and amendments thereto, all without expense to the TOWN, as shown on said plans.

3. The DEVELOPER agrees that where sewer lines are installed in town roads, right-of-ways, or easements passing in front of or abutting existing subdivided lots of record, the DEVELOPER is required to install laterals to the property lines of said properties at his own expense, under the direction of Simsbury Water Pollution Control Authority. Where sewer lines pass undeveloped parcels of land on town roads, right-of-ways, or easements that have potential for development, "Wyes" must be installed as directed by the WPCA at the DEVELOPER'S expense.

4. The DEVELOPER agrees to reimburse the TOWN for all costs of its personnel or its consultants retained for reviewing surveys, designs and plans, inspection, supervisory engineering, testing and all other expenses of the TOWN incurred prior to or during construction, or during any maintenance period stipulated, including reasonable allowances for pension, insurance and similar costs related to payroll.

5. The DEVELOPER agrees that, before commencing any work, he will deposit an engineering and inspection services passbook performance bond with the Town Treasurer a sum determined by the designated agent of the Authority of said TOWN costs. The DEVELOPER further agrees that in case said deposit proves to be insufficient at any time during the progress of the work, further deposit shall be made upon notification by the Water Pollution Control Authority. Upon acceptance of the SEWER by the TOWN, any unexpended portion of said deposit shall be returned to the DEVELOPER.

6. The DEVELOPER agrees that in accordance with Section 22a-416 of the General statutes as the same may be from time to time amended, TOWN approval of this plan of development is subject to approval of the State of Connecticut Department of

Environmental Protection under sections 22a-430 and 22a-430b of the General Statutes, as the same may be from time to time amended. The DEVELOPER shall submit all required plans and documents to the Connecticut Department of Environmental Protection for their approval. No construction will be permitted until the Water Pollution Control Authority is furnished evidence of State approval.

7. The DEVELOPER agrees that he shall at all times indemnify and save harmless the TOWN, the State of Connecticut and their respective officers, agents and servants, from and on account of any and all claims, damages, losses, litigation, expenses, counsel fees and compensation arising out of injuries (including death) sustained by, or alleged to have been sustained by the servants, employees or agents of the TOWN or of the State of Connecticut or of the DEVELOPER, any contractors employed by it or any subcontractor or materialman, and from injuries (including death) sustained by, or alleged to have been sustained by, the public, any or all persons on or near the work, or any other person or property, real or personal (including property of the TOWN) caused in whole or in part by the acts or omission of the DEVELOPER, any contractor employed by it or any subcontractor or materialman or anyone directly or indirectly employed by it while engaged in the performance of any work covered by this Permit-Agreement and during any maintenance period specified therein or by any other governmental authority.

8. The DEVELOPER shall in part, secure his obligations under this Permit-Agreement with the TOWN of SIMSBURY by maintaining at his own expense at least the following forms of insurance:

   a. Owner's Protective Liability and Property Damage Insurance issued by Connecticut licensed insurance companies carrying an rating of at least A, for and in the name of the TOWN OF SIMSBURY and covering all claims against the TOWN arising out of this Permit-Agreement.

   b. Public Liability, Bodily Injury Liability, and Property Damage Liability, including coverage for acts of subcontractors, for all liability assumed under this Permit-Agreement and, where applicable, coverage for use of explosives, for collapse of buildings and damage to underground properties, and coverage required by any law or municipal ordinance or regulation, as follows:

Injury or death of one person:	$1,000,000
Injury to more than one person in a single accident:	$1,000,000
Property damage in one accident:	$1,000,000
Property damage in all accidents:	$1,000,000

   c. Automobile and Truck (Vehicular) Public Liability, Bodily Injury, Liability, and Property Damage Liability, including coverage for hired or borrowed cars, as follows:

Injury or death of one person:	$1,000,000
Injury to more than one person in a single accident:	$1,000,000
Property damage in one accident:	$1,000,000
Property damage in all accidents:	$1,000,000

   d. Workmen's Compensation and Employers' Liability Insurance, as provided by Connecticut Law and custom.

   Insurance under b and c above must provide for a 30-day notice to the TOWN of cancellation or restrictive amendment.

   Insurance under b and c above must be for the whole duration of the contract and for three (3) years after acceptance of the project by the TOWN.

   Insurance under b above shall include XCU coverage as necessary. Collapse and Underground shall be provided for ALL Contracts. Explosion will be provided if specified, or prior to any blasting being performed under the Contract.

   The stipulation of minimum amounts or acceptance by the TOWN of certificates indicating the limits of coverage shall in no way limit the liability of the DEVELOPER to any such amounts.

   Acceptable certificates of insurance shall be submitted before work is begun. Work shall not be continued after expiration of any of the above forms of insurance until the same has been renewed. If the TOWN so requires, original policies or certified copies thereof shall be submitted in lieu of certificates.

9. The DEVELOPER agrees to provide performance bond in a form acceptable to and in favor of the TOWN in an amount not less than the estimated cost of the SEWER. The engineering estimate for cost of said sewer is $_____ .

10. The DEVELOPER agrees that wherever the SEWER crosses his land or land owned by others, not in a duly accepted public highway, he will convey to the TOWN adequate rights-of-way or easements prior to start of construction of any part of the SEWER, the terms of any such said conveyances subject to approval of TOWN counsel. Upon approval and acceptance of the formal easement by the WPCA, the DEVELOPER agrees that it will record, at its cost, the easement document in the TOWN'S land records.

11. The DEVELOPER agrees to pay to the TOWN before connection permits are issued a Facility Connection Charge as determined by the Facility Connection Charge Policy that is in effect on the date this agreement is signed.

12. The DEVELOPER agrees that he will complete the construction of the SEWER within the time stipulated above and no construction work shall be done thereafter, except that at the option of the TOWN and upon application of the DEVELOPER (with approval of Surety), this limit may be extended by the Water Pollution Control Authority.

13. The TOWN agrees that by appropriate resolution of the Water Pollution Control Authority, it will accept and incorporate into the public sewer system of the TOWN such part or parts of the SEWER constructed hereunder said acceptance to become effective as

specified in said resolution. Such TOWN acceptance resolution may be voted upon after certification by the designated agent of the AUTHORITY that the DEVELOPER has fulfilled all the terms of this Agreement and that the SEWER, or designated part thereof, has been completed in accordance with the plans, specifications and standards of the TOWN, TV inspection video and air pressure test results have been submitted for evaluation, and that the SEWER is in acceptable condition, and that all boundary monuments/pins, roadways, curbs, walks, and other surfaces and appurtenances disturbed by the work have been acceptably restored or that adequate security by bond or rights-of-way have been conveyed to the TOWN. The SEWER, or designated parts thereof acquired by resolution of the Water Pollution Control Authority shall thereafter be maintained by the TOWN after the one-year maintenance period is completed at which time the DEVELOPER shall be relieved of the liabilities and obligations in Section 14 hereof with respect to the SEWER or parts thereof actually acquired by the TOWN, except that final acceptance of the roadways, curbs, walks, and other surfaces and appurtenances within the highway limits will be by, and as determined by the Town, or the State of Connecticut, or other governmental authority.

14. The DEVELOPER agrees that he will maintain the SEWER at his own expense for a period of one year following acceptance of the SEWER by the Water Pollution Control Authority and will repair any defect in the SEWER noted during that period, and any damage to any public street, highway, grounds or structure known to have been caused during construction and during the one-year maintenance period, directly or indirectly by the construction, repair, maintenance or by any defect or failure of said SEWER. The DEVELOPER agrees to deposit a passbook maintenance bond in favor of the TOWN in an amount equal to 10% of the sewer construction costs. The DEVELOPER further agrees that he will maintain the roadways, curbs, walks, and other surfaces and appurtenances within the highway limits which have been disturbed by the construction or maintenance of the SEWER for any additional period which may be required by other governmental authority having jurisdiction. If the DEVELOPER fails in any way to carry out his maintenance obligations, and if the TOWN is put to any expense as a result, the TOWN shall be reimbursed for said expense from the DEVELOPER'S maintenance bond deposit with the TOWN, or if the balance remaining in said deposit is insufficient, by additional direct payment from the DEVELOPER and his succeeding owners. Upon request of the DEVELOPER and a satisfactory inspection report after the one year period, the Water Pollution Control Authority may release bonds being held for the maintenance guarantee period.

15. The DEVELOPER, his assigns or succeeding owners, also agrees that he will maintain and operate forever any portion of the sewers, house connections, sewage pumping station, force mains or other sewer appurtenances which he is permitted to build in connection with the SEWER and which is not specifically included in the Water Pollution Control Authority vote granting permission to the DEVELOPER or which is specifically mentioned in said AUTHORITY vote as being excluded from the SEWER to be taken over and incorporated into the TOWN public sewer system.

16. The DEVELOPER agrees that the obligations and privileges herein assumed by him and granted to him shall be obligations and privileges running with the land concerned with or served by the proposed SEWER and resting on or granted to the succeeding owners of said land as well as on or to the parties described by name above.

17. It is mutually agreed that the TOWN may at any time permit others than the DEVELOPER to connect to and regularly use the SEWER.

18. The DEVELOPER agrees that no house connection permit will be issued until such time that section of the SEWER and downstream lines are accepted by the TOWN'S Water Pollution Control Authority. Request for acceptance must be made to the TOWN'S Water Pollution Control Authority at least seven days before regularly scheduled meetings.

19. The DEVELOPER agrees that upon completion of the construction of the SEWER he will prepare an "as-built" plan and profile, certified and stamped by a professional engineer or land surveyor, of the completed sewer and appurtenances and will submit same to the Simsbury Water Pollution Control Facility prior to the TOWN accepting said SEWER. The drawing or drawings shall be in a computer AutoCAD (.DWG) format and in a recordable mylar designated Plate Type 'A'; with an overall measurement of 24" x 36". The scale of said plan shall be 1" = 40', the vertical scale of the profile shall be 1" = 4'.

20. Additional or special clauses.

IN WITNESS THEREOF, the parties hereto have hereunto set their hands and seals this
_____ day of _____ , 20_____ .

Signed and sealed in the presence of:

DEVELOPER:

_____ By: _____

_____ Title: _____

Signed and sealed in the presence of:

TOWN OF SIMSBURY

Water Pollution Control Authority

_____ By: _____

_____ Title: _____

STATE OF CONNECTICUT)
_____) ss. Simsbury
COUNTY OF HARTFORD)

On this the ____day of _____, 20___, before me, the undersigned officer, personally appeared _____, duly authorized, who acknowledged him/her self to be the _____of the TOWN OF SIMSBURY, a Connecticut municipal corporation located in the County of Hartford and State of Connecticut and that (s)he as such _____, being authorized to so do, executed the foregoing instrument for the purposes therein contained, by signing the name of the municipal corporation by him/her self as _____, as his/her free act and deed and the free act and deed of the TOWN OF SIMSBURY, before me.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____
Commissioner of the Superior Court
Notary Public
My Commission Expires:

STATE OF CONNECTICUT)
) ss. Simsbury
COUNTY OF HARTFORD)

On this the ____day of _____, 20___, before me, the undersigned officer, personally appeared _____, duly authorized, who acknowledged him/her self to be the _____of the TOWN OF SIMSBURY, a Connecticut municipal corporation located in the County of Hartford and State of Connecticut and that (s)he as such _____, being authorized to so do, executed the foregoing instrument for the purposes therein contained, by signing the name of the municipal corporation by him/her self as _____, as his/her free act and deed and the free act and deed of the TOWN OF SIMSBURY, before me.

IN WITNESS WHEREOF, I herunto set my hand and official seal.

_____
Commissioner of the Superior Court
Notary Public
My Commission Expires:

STATE OF CONNECTICUT)
) ss. Simsbury
COUNTY OF HARTFORD)

On this the ____day of _____, 20___, before me, the undersigned officer, personally appeared _____, duly authorized, who acknowledged him/her self to be the _____of the TOWN OF SIMSBURY, a Connecticut municipal corporation located in the County of Hartford and State of Connecticut and that (s)he as such _____, being authorized to so do, executed the foregoing instrument for the purposes therein contained, by signing the name of the municipal corporation by him/her self as _____, as his/her free act and deed and the free act and deed of the TOWN OF SIMSBURY, before me.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____
Commissioner of the Superior Court
Notary Public
My Commission Expires:

Appendix E: Availability and Capacity Analysis Process

Availability & Capacity Analysis by

Simsbury WPCA

An owner and/or Developer may be required by their lender or other entity to obtain a letter from The Simsbury WPCA stating whether there is, or is not, wastewater collection available (adjacent) to the proposed development site, and if such services are of sufficient capacity for the planned development. The intent of the availability and capacity analysis process is to research the capability of the existing Town wastewater collection and treatment system (including any pumping stations) to meet the estimated needs for the planned additional residential dwellings or commercial/industrial buildings. Please allow a minimum of four weeks to complete the availability and capacity analysis process.

The availability and capacity analysis process is as follows:

1. A formal request for an availability and capacity analysis is made to the WPCA Chairman located at 36 Drake Hill Road, Simsbury. This request must include:
   - The location of the proposed development, including a street address and a location map.
   - A $150.00 check payable to The Town of Simsbury for administrative fees.
   - A detailed listing of the uses and wastewater flow rates within the proposed development, including, but not limited to the following:

   Residential

     - The type of dwelling units planned for the development (single-family, multi-unit, etc.), including lot size.
     - The number of one-bedroom, two-bedroom, three-bedroom, etc. units planned for the development so that the population may be calculated per Department of Public Health guidelines.
     - Other sources of wastewater within the planned development, such as community buildings (kitchen facilities, restrooms and/or locker rooms, etc.), swimming pool or other facilities.
     - An overall site layout drawing (24” x 36”) with contours.
     - The maximum elevation and mean elevation of the subject parcel.

Commercial/Industrial

- The type of commercial or industrial facility (office, retail, restaurant, hotel, manufacturing, etc.), including lot size.
- The size of the proposed commercial or industrial facility; specifically the number of restrooms planned (office and retail); the number of customers or seats (restaurant); the number of rooms (hotel); the number of employees, etc.
- Estimated and wastewater discharges for industrial processes, including peak water usage and peak wastewater flow rates.
- An overall site layout drawing (24" x 36") with contours.
- The maximum elevation and mean elevation of the subject parcel.

2. WPCA staff will review the submitted information to determine if the Town's current infrastructure can accommodate the planned wastewater flow rates. WPCA staff may request additional information as applicable to the particular development and design.
3. The WPCA will provide a written response if there is, or is not, sufficient availability and capacity to provide the planned development to convey and treat wastewater from the referenced project, as detailed by the owner and/or Developer.

   Additionally, our analysis does not focus on the technical adequacy of the design; such a review is conducted during the DA process, as applicable.

Appendix F: DA Administrative Progress Checklist

DA Administrative Progress Checklist

NAME OF PROJECT:	
WPCA:	
Job Code:	WBS Element:
Developer:	Developer Contact:
Address:	Email:
Telephone:	Telephone:

Preliminary meeting held ..... Date: _____

Capacity analysis required? ..... Yes: ☐ No: ☐

Funding for capacity analysis received ..... Date: _____ ***or*** NA: ☐

Capacity analysis to Developer..... Date: _____

Application submitted by Developer ..... Date: _____

Application deemed complete by Superintendent..... Date: _____

Superintendent distributes construction plans to others ..... Date: _____

Easements deemed required ..... Yes: ☐ No: ☐

Easement documents submitted by Developer..... Date:_____ ***or*** NA: ☐

Public Hearing required? ..... Yes: ☐ No: ☐

Public hearing held, if required ..... Date:_____ ***or*** NA: ☐

Design comments from Staff sent to Developer..... Date: _____

Acceptable revised plans submitted by Developer..... Date: _____

Conditional approval letter issued..... Date: _____

Final construction plans submitted ..... Date: _____

Superintendent determines charges due ..... Date: _____

WPCA Clerk informs Developer of deposit/charges due ..... Date: _____

DA executed and deposits/charges submitted..... Date: _____

Project Summary Plan and final construction plans distributed ..... Date: _____

Easements filed on land records ..... Date:_____ ***or*** NA: ☐

Connection charges financed? ..... Yes: ☐ No: ☐ ***or*** NA: ☐

Preconstruction job conference requirements sent to Developer ..... Date: _____

Job conference requirements complete..... Date: _____

Job conference held?..... Date: _____

Start of construction..... Date: _____

Partial Certificate of Compliance prior to one year maintenance period issued..... Date: _____

Start of one year maintenance period..... Date: _____

5% retainage confirmed ..... Date: _____

Final inspection following one year maintenance period..... Date: _____

Final Certificate of Completion issued ..... Date: _____

Project is accepted by Board..... Date: _____

Appendix G: Sewer Easement – Example Format

SEWER EASEMENT

KNOW ALL MEN BY THESE PRESENTS that _(NAME)__ of (Address), Town of Simsbury, County of Hartford and State of Connecticut, ("Grantors") for the consideration of One Dollar ($1.00) and other good and valuable consideration received to its full satisfaction from the Town of Simsbury, a municipal corporation having its territorial limits in the County of Hartford and State of Connecticut ("Grantee"), does give, grant, bargain, sell and confirm unto Grantee, its successors and assigns forever an easement to construct, lay, maintain, operate, use, alter, repair and replace sanitary sewer lines and pipes and appurtenances thereto, in, through, on and under a certain piece or parcel of land situated in the Town of Simsbury, County of Hartford and State of Connecticut and being more particularly described as a 25 foot wide easement, EXAMPLE: *running parallel to the northerly property line of 19 Walker Drive, lot 54 ("the Parcel"). Said Parcel is shown on a map entitled "Revised Map of Bushy Hill Farms Subdivision, Simsbury, Connecticut, Property of Green Acres, Inc., Scale 1"=100', Date Feb. 9, 1953*", as recorded in the Simsbury Land Records.

Within the Easement Area the Grantee shall have the right to lay, maintain, operate, use, alter, repair and replace sanitary sewer lines and pipes and appurtenances thereto and right to enter on the land within said Easement Area at any reasonable time for the purpose of constructing, servicing, repairing or replacing said sanitary sewer lines and pipes or any material therein.

The Grantors reserve the right for themselves and their successors and assigns forever to use the land within said Easement Area for any use and purpose that does not unreasonably interfere with the use by the Grantee and its successors and assigns, herein provided for.

The Grantee agrees for itself, its successors and assigns, to restore the land within said Easement Area to as near its present condition at any time that it is necessary to disturb the surface thereof in connection with the installation, maintenance, inspection, testing, servicing, repairing or replacing ("Work") said sewer line pipes, and other appurtenances thereto. The Grantee shall be under an obligation to replace trees, shrubs, planting materials, and personal property placed, growing or located within the Easement Area. The Grantee shall notify the Grantors, with at least five (5) days prior notice, of its intent to perform any work within said Easement Area, excepting therefrom an emergency condition that demands immediate attention. The Grantee in the performance of any Work with the Easement Area will provide appropriate and reasonable protective devices or fencing around all such Work to protect the Grantors' employees, servants and invited and all other who are lawfully on the premises of the Grantors.

The foregoing Easement shall burden the Parcel and the Easement Area and shall run with the land forever and shall be binding in perpetuity upon the parties, their heirs, successors and assigns.

TO HAVE AND TO HOLD the above-granted rights, privileges and authority unto the Grantee, its heirs, successors and assigns forever, to its and their own proper use and behoof.

IN WITNESS WHEREOF, the Grantors have hereunto set their hand this __ day of _____ 20__.

Signed and delivered in the
Presence of:

_____ By_____

_____

STATE OF CONNECTICUT)
) ss: Simsbury
COUNTY OF HARTFORD)

On this ___ day of _____, 20__, before me, the undersigned officer, personally appeared _____, signer and sealer of the foregoing instrument and acknowledged the same to be his/her free act and deed _____.

_____
Commissioner of the Superior Court
Notary Public
My Commission expires:

Signed and delivered in the
Presence of:

_____ By_____

_____

STATE OF CONNECTICUT)
) ss: Simsbury
COUNTY OF HARTFORD)

On this ___ day of _____, 20__, before me, the undersigned officer, personally appeared _____, signer and sealer of the foregoing instrument and acknowledged the same to be his/her free act and deed _____.

_____
Commissioner of the Superior Court
Notary Public
My Commission expires:

Appendix H: Sanitary Sewer Deposit Calculation

SANITARY SEWER DEPOSIT CALCULATION - DEVELOPER'S PERMIT-AGREEMENT

DA#:
Project Name:
Developer:

STAFF REVIEW EXPENSES

Reimbursable Expenses of the District*

	Units, in Hours	Unit Cost	Unit Subtotal	
1.0 Engineer			$0.00	
2.0 Superintendent			$0.00	
3.0 GIS/Drafting			$0.00	
4.0 Construction Inspection			$0.00	
5.0 Survey			$0.00	
6.0 Systems Maintenance			$0.00	
7.0 Finance			$0.00	
		Subtotal:	$0.00	$0.00

*To be filled out by Superintendent just prior to execution of DA. Should include all time previously expended plus estimated time for preconstruction conference, inspections and survey.

RETAINAGE CALCULATION

Construction Costs (labor and all materials)

	Quantity	Unit Cost	Unit Subtotal
1.0 6-inch Lateral Pipe			$0.00
2.0 8-inch Main Line Pipe			$0.00
3.0 12-inch Main Line Pipe			$0.00
4.0 Manhole			$0.00
5.0 Drop Manhole			$0.00
6.0 Low-Pressure Air Test			$0.00
7.0 CCTV Inspection			$0.00
8.0 Road base			$0.00
9.0 Paving			$0.00
10.0 Miscellaneous			$0.00
		Construction Total:	$0.00

5% Retainage Due:	**$0.00**

Total Deposit Required:	$0.00
Less Initial Deposit Received:	
Remaining Deposit Due:	$0.00

Appendix I: Requirements for Digital Data Submission for Developer's Agreement

Requirements for Digital Data Submissions for Developer's Agreements

All digital data shall be submitted in .DWG format on computer media (CD or DVD) to:

The Town of Simsbury
Water Pollution Control
36 Drake Hill Road
Simsbury, CT 06070
(860) 658-3258
ATTN Superintendent:

Data must be able to be read, accessed and edited in Windows 7 and **AutoCad 2014**.

All data must be submitted in Connecticut State Plane Coordinate System, North American Datum NAVD 88 Vertical Datum.

All data must include *only* the following information using the indicated layer naming convention, as specified below. Additional layers not specified herein shall not be included with the electronic data submission.

Failure to provide the digital data as stated may delay the progress of the project.

FEATURES	LAYER NAME
Existing street lines	X-SL
Proposed street lines	P-SL
Proposed edge of pavement for private streets	P-EOP-PVT
Street names	STREET-TXT
Proposed houses and buildings	P-BLDG

Proposed address numbers and/or unit numbers	P-ADDNUM
Proposed lot numbers	P-LOTNUM
Existing assessor's parcel numbers, if applicable	X-PARCELNUM
Existing property lines	X-PL
Proposed property lines	P-PL
Proposed WPCA sanitary sewer utilities	P-SAN
Proposed storm utilities in the Town of Simsbury	P-STM
Existing easements and encroachments	X-EAS
Easement text	EAS-TXT
Proposed WPCA sanitary sewer easements and encroachments	P-SAN-EAS
Proposed WPCA storm easements in	P-STM-EAS
Existing watercourses (ponds, brooks, rivers etc.) and detention areas	X-HYDRO
Proposed watercourses (ponds, brooks, rivers etc.) and detention areas	P-HYDRO
Watercourses and detention areas text	HYDRO-TXT
Wetlands	WETLAND
Existing open space	X-OS
Proposed open space	P-OS
Proposed development phase lines	P-PHASE
Existing railroad lines	X-RR

Appendix J: Developer's Checklist for DA Application Completeness

- DA application: is application complete and properly executed?
- $150 deposit check for sewer design and capacity review.
- Are two sets of stamped construction plans of the infrastructure included?
- If applicable, are easement documents included?

Appendix K: Pre-Application Meeting Topics

Pre-Application Meeting

- Exchange of addresses, emails and phone numbers of participants
- Description of proposed project by Developer including:
    - Location
    - Size of development
    - Status of local approvals
    - Estimate of water and or sewer demand needs
    - Fire service needs
    - Schedule for design and construction
- Will a WPCA availability and capacity analysis be required?
    - Is enough information on water usage available to make a determination of deminimis amount such that capacity analysis is not required?
    - If capacity analysis is required, WPCA will:
        - Explain needed documentation from Developer
        - Review the availability and capacity analysis process
        - Explain costs associated with the analysis
- Determination if DA is required or just connection permits
- Review of checklist for DA application completeness
- Discussion on WPCA standards and materials
- Determination if easements will be required
- General discussion on connection charges and reimbursable expenses
- Determination if a public hearing is necessary
- Discussion of what infrastructure will be turned over to the WPCA
- Discussion on estimated timeline for execution of DA
- Discussion on phasing of construction

Appendix L: Information Required from Developer Prior to Scheduling Pre-Construction Job Conference

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Information Required from Developer Prior to Scheduling Job Conference

The Contractor or Developer shall submit the following documents and/or information prior to the scheduling of the Pre-Construction Job Conference. Failure to provide any of the requested documents will delay scheduling of this conference.

Requested Documents/Information:

1. Contractor Name, Address, Contact Information, Certificate of Insurance
2. Name and Contact Information of the Contractor's emergency Contact Person
3. List of Materials and Manufacturer to be installed as selected from the Town's Approved Material Lists [current edition]. The List of Project Specific Materials Shall Be Typed on the Contractor's Letterhead.
4. Submittals for all non-standard materials (i.e., materials not on the WPCA Approved Materials Lists).
5. Call-Before-You-Dig Assigned Number(s)
6. Copies of Contractor's P-1 or P-7 license as well as appropriate plumbing licenses of subcontractors and employees.
7. Name and Title of OSHA-Competent Person
8. Copies of State and/or Town Excavation Permit(s) – As Applicable
9. Name, Contact Information and License Number of Surveyors
10. Proposed Starting Date
11. Estimated Time to Complete Installation of the Sanitary Sewer
12. Planned Starting Location
13. Proposed Standard Work Hours
14. Any Questions Concerning Simsbury Standards and Procedures
15. Description and Plan of any Phasing of this Project

The Contractor shall bring one copy of the approved drawing set (plans, profiles and details) to the Job Conference for their use.

Appendix M: Draft Pre-Construction Job Conference Agenda

Pre-Construction Job Conference – Sewer

Project:		
DA #:	WPCA:	Date:

Job code:	Inspection WO#	Survey WO#
Job code:	Inspection WO#	Survey WO#

Contractor:	
Address:	
License #: (P1 or P7)	

Developer:	
Address:	

OTHER CT LICENSES (P1 – P7) OF SUBCONTRACTORS AND EMPLOYEES

Name:		Lic No:	
Name:		Lic No:	
Name:		Lic No:	

PERMITS

WPCA:_____State:_____Town:_____CBYD:_____

ATTENDANCE & CONTACT INFORMATION:

Name	Company	Phone	Email

Items for Review/Discussion at Pre-Construction Job Conference

CONSTRUCTION SCHEDULE:

Planned start date:	Work hours:	Planned Completion Date:

SITE SAFETY:

Contractor's OSHA Competent Person:	Contact phone #:

☐ Site Safety is Contractor's responsibility; includes but not limited to trench & confined space

☐ District Excavation & Trenching Safety Policy (5/17/13) transmitted to Contractor

MATERIALS:

All Shop Drawings/Product Submittals must be reviewed and approved prior to construction. The latest approved material lists are available at www.simsbury-ct.gov.

☐ All materials approved; if NOT, missing or unacceptable materials:

Missing/unacceptable materials:

TRAFFIC:

Traffic control is the Contractor's responsibility and subject to local authority or state authority if in a state highway.

SURVEY:

Offset line, final road or surface grade, benches, cut sheets and all appurtenances shall be performed by:

Surveyor: _____ License #: _____

☐ WPCA Survey & Layout Standards given to Contractor

GENERAL:

☐ Pavement to be installed per WPCA Contract/WPCA/State DOT requirements

☐ Trench compaction must be completed prior to testing of all lines

MAINTENANCE PERIOD:

At the end of the one-year maintenance period for all surface restorations and sewer appurtenances will be inspected. Any installed sewer lines shall be CCTV'd at the end of the one year period, witnessed by a representative of the WPCA, and approved prior to final release of retainage. Any deficiencies shall be corrected at no expense to the Town.

The Contractor should contact WPCA at 860-658-3258 to schedule final inspection at end of one-year maintenance period.

CONNECTION PERMITS:

☐ Connection permits require 24 hours notice prior to construction for final inspection

PHASING OF CONSTRUCTION:

☐ Any proposed phasing of construction for the purposes of opening portions of the sewerage system prior to full completion of the project were reviewed with the Contractor.

SPECIALTY REQUIREMENTS:

☐ Are there any special circumstances requiring a specific qualified subcontractor?

LESSONS LEARNED:

☐ WPCA staff will discuss common issues that arise on DA projects.

Comments:

Appendix N: Sewer Testing and Cleaning Specifications

SEWER TESTING AND CLEANING

PART 1 – GENERAL

1.1 SCOPE OF WORK

The Work specified in this Section includes the Contractor using his own equipment, or by a Subcontractor approved by the Engineer. All equipment proposed for conducting the tests shall be subject to the approval of the Engineer. Drawings must be in sufficient detail to show the setup and proposed operation, and no testing will be permitted without prior approval of the Engineer.

A. Furnish all labor, materials, equipment and incidentals required to clean and test all new pipe installed under this Contract as specified herein.
B. The term "sewer", as used in this Section, shall apply to sewer pipelines.
C. All new sewer pipes shall be cleaned and televised at the completion of work and at the completion of the one (1) year manitenance period.
D. All new sewers shall be air tested. All new laterals shall be air tested to the property line.
E. All new mainline sewers connecting to existing sewers shall be joint tested at each joint of the new sewer pipe installed.
F. All sewers shall be tested for leakage by an infiltration test if the ground water level is a minimum of 2-ft above the crown of the pipe for the full length of the section tested.
G. When sewers cannot be tested by an infiltration test as specified above, they shall be tested by an exfiltration test using water or air.

1.2 RELATED WORK

A. Reinforced Concrete Pipe
B. Ductile Iron Pipe for Sanitary Sewer
C. Polyvinyl Chloride Sewer Pipe
D. Television Inspection

1.3 REFERENCES

The following standards, based on the latest edition, form a part of this specification as referenced:

A. American Society for Testing and Materials (ASTM)
    1. ASTM C828 - Standard Test Method for Low-Pressure Air Test of Vitrified Clay Pipe Lines
B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.1 CLEANING

A. At the conclusion of the work, thoroughly clean all pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may have entered the pipes during the construction period. Debris cleaned from the lines shall be removed from the low end of the pipeline. If after this cleaning, obstructions remain, they shall be removed. After the pipelines are cleaned and if the groundwater level is above the pipe or following a heavy rain, the Engineer will examine the pipes for leaks. If any defective pipes or joints are discovered, they shall be repaired or replaced by the Contractor.

3.2 TELEVISION INSPECTION

A. All new sewer pipelines shall be television inspected by the Contractor prior to acceptance to assure proper jointing and flow characteristics. Television inspections shall not be scheduled until construction of other utilities in the same area is completed and pipeline under consideration has been backfilled and compacted to sub-grade elevation. Television inspection will be performed after the pipelines have been cleaned and also for a second time at end of the 1-year maintenance period. Contractor will be required to repair any defects noted at this time at no additional cost to the Town.

3.3 TESTING

A. General

1. The Contractor shall test the first section of new mainline pipe and new service pipe as soon as it is installed to demonstrate that the work conforms to these Specifications. The initial test section shall not be more than 500-ft of pipeline.
2. Testing of pipe shall closely follow pipe laying. The Contractor shall have no more than 1000-ft of untested sewer or drain constructed at any time.

B. Infiltration Test

1. Pipe shall be tested for infiltration if groundwater level is a minimum of 2 feet above the crown of the pipe for the full length of section to be tested, after the backfill has been placed and the ground water allowed to return to normal elevation. Infiltration tests shall be made under the supervision of the Engineer and the length of line to be tested shall be the length between adjacent manholes. The allowable infiltration shall be 100 gals per inch of diameter per day per mile of pipe in PVC, DI and RCP pipe for each section tested. There shall be no gushing or spurting leaks.
2. If an inspection of the completed sewer or any part thereof shows pipes or joints which allow noticeable infiltration of water, the defective work or material shall be replaced or repaired as directed, at no additional cost to the Town.
3. Rates of infiltration shall be determined by means of V-Notch weirs, pipe spigots, or by plugs in the end of the pipe to be furnished and installed in an approved manner and at such times and locations as may be directed by the Engineer.

C. Exfiltration Test

1. Leakage tests by exfiltration shall be made before or after backfilling at the discretion of the Engineer. The length of pipe to be tested shall be such that the head over the crown at the upstream crown is not less than 2-ft and the head over the downstream crown is not more than 4-ft. The pipe shall be plugged by pneumatic bags or mechanical plugs in such a manner that the air can be released from the pipe while it is being filled with water. Before any measurements are made, the pipe shall be kept full of water long enough to allow absorption and the escape of any trapped air to take place. Following this, a test period of at least one hour shall begin. Provisions shall be made for measuring the amount of water required to maintain the water at a constant level during the test period.
2. If any joint shows an appreciable amount of leakage, the jointing material shall be removed and the joint repaired. If any pipe is defective, it shall be removed and replaced. If the quantity of water required to maintain a constant level in the pipe does not exceed 100 g a l s per inch of diameter per day per mile of pipe and if all the leakage is not confined to a few joints, workmanship shall be considered satisfactory. If the amount of leakage indicates defective joints or broken pipes, they shall be corrected or replaced.

D. Air Testing

1. When the Engineer specifies or directs that leakage tests shall be made using the low-pressure air test method, the Contractor will be required to provide all equipment; test plugs in the required sizes; appurtenances; connecting hose or pipe; and labor and materials necessary to conduct and control the test as herein specified. All testing shall be performed in accordance with the procedures described in ASTM C828.
2. All tests shall be conducted on the completed sewer pipeline between manholes. Testing of shorter sections of pipeline will only be permitted with the approval of the Engineer.
3. The Contractor is cautioned regarding the importance of properly installing the end caps used to plug hubs, wyes, bends, ends of laterals, and other inlets, and securing them against movement during installation of sewer. Failure to take this precaution can cause a properly installed sewer pipeline to fail a low-pressure air test.
4. The Contractor is further cautioned regarding the safety of personnel during the test. Low-pressure air can exert a substantial force on a pipe plug, even on all diameter pipe plugs. The Contractor will be responsible to ensure that all plugs utilized are in good condition and that they will not be pressurized beyond the limits recommended by their manufacturer.
5. No one will be permitted in a manhole containing a plug while air is under pressure in the pipeline being subjected to low-pressure air testing.
6. All gages, controls, and appurtenances for equipment used to conduct the test will be located outside of manholes. Connections to the line under test, test plugs, and other equipment will be made with hose or pipe extensions which will safely contain the pressures necessary to conduct and control the test.
7. Immediately prior to testing, all lines will be cleaned and flushed with water. Pipe manufactured in accordance with ASTM Specification C-76, where applicable, shall be soaked for a period of 12 hours to saturate the pipe wall prior to testing with low-pressure air.
8. The equipment used to introduce the low-pressure air into the sewer line shall include a safety valve, or release device, located in the equipment at a point which will insure that, during the build-up of test pressure, the pipeline being tested will not be subjected to an internal pressure that could damage a properly installed pipeline.
9. The gage used to measure the drop in pressure shall have a 4-inch diameter face with a scale of 0 to 15 PSI (pounds per square inch) in 0.1 PSI increments, or as approved by the Engineer.
10. The Contractor shall determine the elevation of the ground water table in the area of the pipeline being subjected to the low-pressure air test in a manner approved by the Engineer.
11. After cleaning and flushing the line, plugs will be installed in the pipeline being subjected to the low-pressure air test and braced as necessary to secure the plugs in place.
12. Utilizing the approved equipment, air at low pressure will be slowly introduced into the pipeline until the pressure within the pipeline being tested increases to 4 PSIG greater than

the back pressure exerted by the ground water table over the pipe being tested, but not greater than 9 PSIG, (back pressure = 1 PSIG per 2.31 feet of water) as determined above. If the water table is not at a level above the pipe, the test pressure should be brought up to 4 PSIG. Allow at least 2 minutes to elapse prior to starting the test. If necessary, allow a small amount of air to slowly enter the pipeline in order to maintain a pressure of 4 PSIG above the back pressure due to the water table, or 4 PSIG if there is no back pressure to compensate for.

13. Disconnect the supply air hose from the source of air and allow the air pressure within the pipe being tested to drop to 3.5 PSIG above the backpressure due to the existing ground water table (or to 3.5 PSIG if there is no water table). At this point, start measuring the time for the pressure in the pipeline to drop 1 PSIG (or to drop to 2.5 PSIG if there is no back pressure due to a water table).
14. The time required to drop 1 PSIG shall not be less than that indicated in Table 1 for the size and length of pipeline being tested. If the time is less than that indicated in Table 1, the pipeline will be considered to have failed the test (See Table 1).
15. Any section of the sewer line which fails to meet this test will be repaired or replaced as necessary by the Contractor, and retested at no additional expense to the Town.
16. The Contractor will be responsible for all costs and delays incurred due to efforts to locate and repair any leaks in any sewer line which fails the low-pressure air test, regardless of whether the failure is due to workmanship; material failure; the result of an improperly installed or braced end cap; or any sewer line damaged due to failure to provide a properly sized and operable safety valve or pressure relief device on the testing equipment for protection of the pipeline being tested. No sewer line will be considered acceptable until it successfully passes the requirements of this test unless the requirement is waived by the Engineer.
17. All testing will be conducted by the Contractor or his approved Subcontractor in the presence of the Engineer. The Contractor or his Subcontractor shall keep a written record which will show the results of the tests conducted. These records should include sufficient data on length of line, pressure levels, time for pressure drop and related features noted during the testing of each segment of the line. A copy of these records shall be given to the T o w n .

E. Allowable Deflection Test

1. Pipe deflection measured not less than 90 days after the backfill has been completed as specified shall not exceed 5 percent. Deflection shall be computed by multiplying the amount of deflection (nominal diameter less minimum diameter when measured) by 100 and dividing by the nominal diameter of the pipe.
2. Deflection shall be measured with a rigid mandrel (Go/No Go) device cylindrical in shape and constructed with a minimum of 9 evenly spaced arms or prongs. Drawings of the mandrel with complete dimensions shall be submitted to the Engineer for each diameter of pipe to be tested. The mandrel shall be hand pulled through all sewer lines.

3. Any section of sewer not passing the mandrel shall be uncovered at no additional cost to the Town and the bedding and backfill replaced to prevent excessive deflection. Repaired pipe shall be retested at no additional cost to the Town. Retested pipe shall not deflect more than 4 percent.

F. Sewer Pipe Joint Testing

1. Existing hydrostatic head shall be established by inserting a pipe probe into the backfill material at the crown of the pipe at the downstream manhole and applying pressure until equilibrium is attained. This is the back pressure that all test pressures for that section of line shall be increased by.
2. A precise pressure of 4 PSI above the existing hydrostatic head shall be applied to each joint. Once the pressure of 4 PSI above hydrostatic head at the joint has been recorded on the gauge above ground, the water flow shall be stopped and the pressure gauge observed for 30 seconds. Should the pressure on the joint drop 0.5 PSI or more within 30 seconds, the joint will have failed the test. Joints that fail the test shall be repaired as directed by the Engineer and re-tested by the same procedure until the joints pass the pressure test.
3. During the joint testing program complete records shall be kept, recording the location of the manhole section in which the testing is done; location of each joint tested; test pressures used; and the test results.
4. Pipe joints that fail the joint test shall be repaired to the satisfaction of the Engineer and shall be subject to another joint test at the direction of the Engineer.
5. Place a test packer inside pipe and test every joint.

TABLE 1

MINIMUM TIME REQUIRED FOR A PRESSURE DROP OF 1 PSIG AS REQUIRED IN LOW PRESSURE AIR TEST SPECIFICATION - MINUTES: SECONDS

(BASED ON 0.0015 CFM/SQ. FT.)

Pipe Diameter (in.)	**Specification Time for Length (L) Shown (min:sec)**								
	100 ft.	**150 ft.**	**200 ft.**	**250 ft.**	**300 ft.**	**350 ft.**	**400 ft.**	**450 ft.**	**500 ft.**
4	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:47
6	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24	7:07
8	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24	12:40
10	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48	19:47
12	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38	28:29
15	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04	45:51
18	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41	64:06
21	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31	87:15
24	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33	113:58

Note: If lateral sewers are included in the test, their lengths may generally be ignored in computing required test times. In the event a test section, having a total internal surface area less than 625 square feet, fails to pass the air test when lateral sewers have been ignored, the Engineer shall recompute the test time including all lateral sewers.

END OF SECTION

Appendix O: Television Inspection Requirements

TELEVISION INSPECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The work specified in this Section includes furnishing all necessary labor, materials, equipment, services and incidentals required. A visual inspection by means of color closed circuit television for all new and existing sewer and drain sections, including, but not limited to, all recording and playback equipment, materials and supplies such as tape or disk. All new sewer pipes shall be television inspected.
B. The term "sewer", as used in this Section, shall apply to sewer mainlines (not laterals).
C. The inspection shall be done one sewer line section (i.e., manhole to manhole) at a time.
D. All inspections shall be witnessed by the Engineer.
E. Video recordings shall be made of the television inspections and copies of both the recordings and printed inspection logs shall be supplied to the Town.
F. The work specified in this Section shall be performed upon completion of the construction of the sanitary sewer, storm drains and appurtenances and then again at the end of the maintenance period, subsequent to trench consolidation and testing operations.
G. For post-construction television inspection, the Contractor is responsible for adhering to NASSCO's Pipeline Assessment and Certification Program (PACP) guidelines. Verification of NASSCO PACP certification is required.

1.2 RELATED WORK

A. Sewer Testing and Cleaning.

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. The television camera used for the inspection shall be one specifically designed and constructed for such inspection. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100 percent humidity conditions. The camera, television monitor and other components of the video system shall be capable of producing a minimum 500 line resolution video picture. Picture quality and definition shall be to the satisfaction of the Engineer and if unsatisfactory, equipment shall be removed and no payment made for an unsatisfactory inspection.

B. Field Data Recordings

1. Image Capture

- Create still shots of video recordings. Selected digitized picture images shall be stored and the picture files shall be exportable to Industry Standard Formats to include JPEG, BMP, and TIFF formats and are transferable by disk to an external personal computer that utilizes standard viewers and printers. Picture files will be stored and exported with inspection data.

2. Video Capture

- Full time live video and audio files shall be captured for each pipe inspected. The files shall be stored in industry standard MPEG (Moving Pictures Expert Group) format and can be transferable by CDR media or DVDR to an external personal computer that utilizes standard MPEG viewers. The MPEG video shall be defined as ISO-MPEG Level 1 (MPEG-1) coding with a resolution of 352-pixel (x) by 240- pixel (y) and an encoded frame rate of 29.97 frames per second.
- System shall perform an automatic disk image/file naming structure to allow saved video/data sections to be "Burned" to CDR or DVDR format. It shall have the capability of "burning" a minimum of 45 minutes of video to the CDR media with full "Linked" pipeline data information.
- The video recording shall be free of electrical interference and shall produce a clear and stable image. The audio recording shall be sufficiently free of background and electrical noise as to produce an oral report that is clear and discernable.
- The recordings shall identify the location both within the pipe segment (physical location) and within the digital recording (video frame location) for each defect or observation. The digital recordings and inspection data shall be cross- referenced to allow instant access to any point of interest within the digital recording. A user defined, pipeline search mechanism shall be provided.
- The video inspection shall include segment information (start and ending manholes, station footage, date, time, client, address, etc.). A pointer shall be provided from each observation to the digital recording and any accompanying digital still images.

PART 3 - EXECUTION

3.1 PROCEDURE

A. The camera shall be moved through the line in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition, but in no case will the television camera be pulled at a speed greater than 30 fpm. Manual winches, power winches, TV cable and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the television camera will not pass through

the entire sewer line section, the equipment shall be removed and repositioned in a manner so that the inspection can be performed from the opposite manhole.

B. Whenever non remote powered and controlled winches are used to pull the television camera through the line, telephones, radios, or other suitable means of communication shall be set up between the two manholes of the sewer line being inspected to ensure that good communications exist between members of the crew.

C. The accuracy of the measurements cannot be stressed too strongly. Measurement for location of defects shall be above ground by means of a meter device. Marking on cable, or the like, which would require interpolation for depth of manhole, shall not be allowed. Measurement meters shall be accurate to two tenths of a foot over the length of the sewer line section being inspected. Accuracy of the measurement meters shall be checked daily by use of a walking meter or other suitable device.

D. For post-construction television inspection, the Contractor is responsible for adhering to NASSCO's PACP guidelines.

3.2 RECORDING OF FIELD OBSERVATIONS

A. General

1. The Contractor shall submit to the Engineer, two copies of digital recordings (images and video) of the pipeline television inspections and summary data in CDR (Write-Once CD) or DVDR format. The CDR shall be written in accordance with the ISO-9660 Level 2 Specification. Each CDR shall be labeled with the appropriate identification of its contents. The label shall correspond to a schedule of every sewer reach contained on the CDR.
2. The digital recordings shall be linked to software capable of performing multiple summaries, queries, and analysis. The software shall also have the capability of recording, digitizing and storing single frames of video images and full time live video, as well as collecting, storing and printing pipeline inspection data for display and report generation.
3. The included software package shall be a 32 bit Windows 7 application and shall be fully Object Oriented. It shall be capable of printing pipeline inspection reports with captured images of defects or other related significant visual information on a standard inkjet color printer. The software shall also have the capability of being linked with graphical software such as those used for Geographical Information Systems.
4. Data Base

    a. Develop a summary log of each sewer reach inspected. The system software shall be an MS Windows based data acquisition system incorporating an ODBC windows standard data base format. Inspection files shall be able to be exported into other databases and other computers. Information on software file headers format shall be provided to allow the inspection database to be customized with the correct headers into the user's unique application or software. The defect codes shall include standard defect codes and user defined codes. Defect severity codes shall include standard codes and user defined codes. There shall be graphical and tabular reports showing all observation

points and pertinent data. All graphic and tabular reports shall be in color to match the defect severity codes. Inspection information shall be stored in a rational database management system that employs relationships to increase data integrity and reduce storage space.

b. System shall have the capability of being customized to meet local area requirements and regulations as necessary. These available changes shall encompass variations of the operation layout, functions and printed reports. The program shall be capable of sorting all data stored using generic sort key and user defined sort fields.

c. For post-construction television inspection, the Contractor is responsible for adhering to NASSCO's PACP guidelines. The Contractor shall submit to the Engineer all digital inspection videos and PACP exchange database on a portable hard drive provided by the Contractor. The hard drive shall be delivered to the Engineer and shall be labeled with the project name and date. The data on the hard drive shall consist of separate individual video files for each pipe segment taped. Each individual video file shall be named with the upstream to downstream manhole associated with the data presented.

END OF SECTION

Appendix P: Excavation and Trenching Safety Policy

ENVIRONMENT, HEALTH & SAFETY DEPARTMENT

EXCAVATION AND TRENCHING SAFETY POLICY

PURPOSE

The purpose of this policy is to assure a uniform and consistent understanding of the Town's position regarding imminent danger situations associated with working in excavations and trenches and to establish the procedure to be followed in the event that such a situation occurs.

Imminent danger, as defined by OSHA means: "Any conditions or practices in any place of employment which are such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through the enforcement procedures otherwise provided by this Act."

POLICY STATEMENT

The prevention of injury to any person working in an excavation or trench is of prime concern. Therefore, the following procedure shall be implemented in every instance where Town employees or employees of contractors performing work for the Town are engaged in activities covered by 29 CFR 1926, Subpart P.

PROCEDURE

IMMINENT DANGER IN EXCAVATIONS

1. ACTION BY WPCA EMPLOYEE (OTHER THAN A SUPERVISOR, INSPECTOR OR MANAGER)

   If an employee observes what he/she feels is an imminently dangerous condition, they are to notify their supervisor or designated Competent Person immediately of the specific dangers involved.

2. ACTION BY INSPECTOR

   If an imminent danger condition is observed by a WPCA Inspector or any WPCA management person he/she shall:

   a) Request that the individual responsible for safety on the job site (defined by OSHA as the Competent Person) order workers out of the excavation and cause the performance of such work, as required, eliminating the imminent danger condition.
   b) Document the request indicating actions taken and notify their supervisor immediately.
   c) If the Competent Person fails to comply with the request above, the WPCA inspector shall order workers out of the excavation, order a halt to the job and call his/her supervisor.

3. ACTION BY SUPERVISOR

   When notified by an inspector or other WPCA representative of an imminent danger condition the supervisor shall:

   a) Review the circumstances surrounding the order to halt the job.
   b) Immediately proceed to the job site to evaluate the conditions.
   c) Call OSHA if further clarification is needed.

Appendix Q: Cut Sheet and Stationing for Manholes

Cut Sheet

Sewer	
Water	

Location:_____

WPCA:_____DA#/Contract:_____

Staked:_____of CL at_____

Elevation	Flowline	Cut	Station	Remarks

By:	Date:
Notebook:	Datum:

See attached "**Stationing of Manholes for DA Project**"

Stationing of Manholes
for Developer's Agreement Projects

1. Start station 0+00 at existing manhole or first new manhole (if MH is to be constructed over existing sewer).

2. Station consecutively along main portion of sewer to an end manhole.

3. At intersection(s) where the sewer branches *off* in another direction, a different station shall be used other than one that has already been used. The new stationing shall begin with the next even thousand station. Thus, it is possible to have more than one station per manhole.

4. All offset stakes are to be stationed at even fifty foot (50') intervals. Offset stakes shall be at twenty-five foot (25') intervals when a laser will not be utilized.

5. The first stake out of <u>proposed</u> manholes shall be utilized to adjust the stationing to next even fifty foot (50') interval when the manhole station is not evenly divisible by 50'.

6. Street stationing of sewer will NOT be allowed.

Appendix R: Insurance Requirements – Sewer Installation

DEVELOPER'S AGREEMENT

INSURANCE REQUIREMENTS

(Public Sewer Installation)

FOR LICENSE AS A PIPE LAYER, EXCAVATOR OR

ELIGIBILITY FOR TOWN OF SIMSBURY PERMITS

Commercial General Liability	Limit of liability not less than $1,000,000 each occurrence and $1,000,000 aggregate. The Town of Simsbury, the State of Connecticut and their respective officers, officials, employees, agents and servants **must** be added as additional insureds.
Environmental & Pollution Liability	Limit of liability not less than $1,000,000 each occurrence.
Automobile Liability	Limit of liability not less than $1,000,000 combined single limit.
Protective Liability (Owners & Contractors Protective Liability) (OCP)	For and in the name of the Town with a per project minimum limit of liability not less than $1,000,000 each occurrence and $1,000,000 aggregate.
Umbrella Liability	Limit of liability not less than $1,000,000 each occurrence and $1,000,000 aggregate in excess of Employer's, Commercial General Liability and Automobile Liability.
Workers' Compensation	As required by Connecticut law and Employer's Liability with a limit of not less than $1,000,000 each occurrence; $1,000,000 disease policy limit and $1,000,000 disease each employee.
Owner/Operator Note	A letter from your Insurance Agent attesting to the fact that W/C insurance is not mandatory and that you elect not to carry it, will satisfy this requirement.

All of the above requirements must be met prior to issuance of a permit.

Appendix S: Permit Application-Mainline Sewer and Sewer Lateral Connections

Permit Application: Mainline Sewer and Sewer Lateral Connections

Permit # _____

Work at: _ Lot # _____

on the _____ side, in the Town of _ Connecticut,

between _

at premises owned by _

whose address is _

Nature of work:	☐ House Conn			☐ Main Sewer	☐ Backwater Valve
	☐ New	☐ Repair			☐ Other
Occupancy or use:	☐ Residential with	family units			
	☐ Commercial	☐ Industrial	☐ Other:		
Public Sewer :	☐ Sanitary				

*Connection will be made with (type of pipe and how connection is to be made):*_

_____

_____

*Located:*_

_____

_____

*Special conditions:*_

_____

_____

Data from _ Plan #: _ Required plans, submitted and approved ¨

Job Code:_ Contractor's State License #: _

Contract #:_ Contractor's Insurance expires: _

Main Sewer Approved for Connection: ¨ Street excavation permit #:_

Sewer tributary to _ Call Before You Dig (CBYD) #: _

☐ Property Assessed for Sewer ¨ Connection charge paid on: _

Deferred Assessment to become Due and Payable as Requested by Owner on: _

Sewer Connection Charge Agreement signed by Owner on:_

Voluntary Sewer Lien Signed by Owner and initial Installment Paid on:_

Connection charge Paid in Full on: _

Permit to be issued to: _

The undersigned agrees to perform under Town Codes the work indicated.

Signed by: _

Permit issued by:_

First inspection:_

Called: _

To inspect: _

Final inspection approved on: _

Final Inspection on:

Appendix T: Sample Certificate of Completion for Sewer

Certificate of Completion - Sewer

The following facilities which were built under:

Permit No.: _ **DA/Contract No.:** _

Sanitary Sewer: (List diameters, linear footage and material types)	

Project Name: _
Partial opening ( ) - Attach sketch
Location: _ WPCA: _
Developer: _ Contractor: _
Start Date: _
Contract Completion Date: _ Extended Contract Completion Date: _
Inspector: _ Final Inspection Date: _
Low pressure air test (date): _ Closed Circuit TV Inspection (date): _
Project Manager _____ Inspector: _

Progress Plan attached: ¨

Authorization for Connections and/or Use

5% retainage confirmed (date): _ Controller: _
Recommended for use (date): _ Construction Services Manager: _
Approved for use: Date: _ Director of Engineering: _

End of Maintenance Period

Date of End of Maintenance Period: _ Controller: _
Inspection OK by Survey: _ Date: _ Plants (date): _
Punch list items completed: _
_ Date: _
Construction Inspector: _ Date: _

	DATE	DISTRICT CLERK
WPCA ACCEPTANCE OF SEWERS		
NO KNOWN CLAIMS AGAINST CONTRACTOR OR DISTRICT		
EASEMENTS FILED ON LAND RECORDS		

Recommend Acceptance

Superintendent Date: _

Financial Closeout

WPCA Date: _

After all Project costs due to the WPCA have been paid and settled, Clerk forwards original Certificate of Completion to Town.

Appendix U: Sample Partial Opening Form for Sewer

Partial Opening Form Authorizing Connections to Sanitary Sewers

The following facilities which were built under:

Permit No.: _ **DA/Contract No.:** _

Sanitary Sewer: (List diameters, linear footage and material types)	

Project Name: _

Location: _ WPCA: _

Developer: _ Contractor: _

Start Date: _

Substantial Completion Date: _

Low pressure air test (date): _ Closed Circuit TV Inspection (date): _

Final Inspection OK of completed portion (date): _

Inspector: _

Authorization for Connections and/or Use

5% retainage confirmed (date): _

Recommended for use (date): _ Construction Services Manager: _

Approved for use: Date: _ Director of Engineering: _

Attach plans indicating which portions of the construction has been completed and ready for connections, including which addresses can be connected shown on the plans.