HAMILTON SOUTHEASTERN UTILITIES, INC.

SANITARY SEWER COMPLETION SPECIFICATIONS

SECTION 1 - GENERAL

1.01 - Definitions

For the purpose of these Sanitary Sewer Completion Specifications ("Completion Specifications"), the following definitions shall apply:

A. "HSE" shall mean Hamilton Southeastern Utilities, Inc., the public utility which provides sanitary sewer service in the Project (as hereafter defined) area. HSE's address is 11911 Lakeside Drive, Fishers, Indiana 46038, and HSE's phone number is (317) 577-2300.

B. "Engineer" shall mean the engineer for HSE, which is Sanitary Management & Engineering Company, Inc. ("SAMCO") or SAMCO's engineers. SAMCO's inspector shall be the Engineer's representative during construction of the Project. SAMCO's address is 3030 North Post Road, Indianapolis, Indiana 46226, and SAMCO's phone number is (317) 898-8282.

C. "Subscriber" shall mean those signatories identified as Subscribers under a Special Contract for Extension of Sewer Mains and Facilities with HSE through which the Project is being undertaken. Subscriber is generally the Owner under a construction contract. This definition is intended to include all employees, sub-contractors and/or agents acting in the interest of Subscriber.

D. "Contractor" shall mean any construction contractor approved by HSE to construct, install, maintain, repair and remove public or Private sanitary sewer facilities within the HSE service area. This definition is intended to include all employees, sub-contractors and/or agents acting for or on behalf of the Contractor's company.

E. "Design Engineer" shall mean the engineer who certified the construction plans, as opposed to the Engineer for HSE and the Record Drawing Engineer, both of whom are also defined under these Completion Specifications. This definition is intended to include all employees, sub-contractors and/or agents acting for or on behalf of the Design Engineer's company.

F. "Record Drawing Engineer" shall mean the engineer who will certify the record drawings, as opposed to the Engineer for HSE and the Design Engineer, both of whom are also defined under these Completion Specifications. The Record Drawing Engineer and Design Engineer may be the same person or represent the same company. This definition is intended to include all employees, sub-contractors and/or agents acting for or on behalf of the Record Drawing Engineer's company.

G. "Project" shall mean any sanitary sewer facilities constructed within the service area

of HSE and shall include all work necessary for the installation of all sanitary sewer infrastructure and appurtenances in conformity with HSE approved construction plans and the standards, specifications and details of HSE.

H. "Conveyed" with regards to sanitary sewer facilities means Projects for which HSE has received title.

I. "Private" with regards to Projects shall mean Projects from which sewage flows into HSE's sanitary sewer facilities, but for which title for the sanitary sewer facilities is not to be Conveyed to HSE.

J. "Completed" with regards to Projects shall mean any Projects which are acceptably constructed, tested and through which customer service has been authorized by HSE. All applicable fees must be paid to HSE prior to a Project being deemed Completed. Completed sanitary sewer facilities are further described later in these Completion Specifications.

K. "Completion Documentation" shall mean record drawings and other documentation to be submitted under these Completion Specifications. Completion Documentation must meet the applicable standards in effect at the time the documents are submitted.

L. "Ultimate Depth" as it pertains to separation distances shall mean the greatest depth of cover from the invert of the pipe to grade, whether constructed initially or increased by additional fill placed in the future.

1.02 - Purpose

A. The following procedures, requirements and documents need to be thoroughly addressed before HSE will accept the Project and allow the sanitary sewer facilities to be placed into service.

B. These Completion Specifications define the standards for the Completion Documentation to be submitted to HSE and Engineer.

C. The digital file and record drawing set must provide an accurate description of the sanitary sewer facilities constructed with each Project. The documents must be prepared from a frame of reference that describes all necessary details for future users, maintenance and master planning as related to what was or was not constructed with the Project.

1.03 - Applicability

A. These Completion Specifications are applicable for all public and Private sanitary

sewer facilities which will be connected to HSE's sanitary sewer system. This includes Private Projects which will not initially be connected to HSE's sanitary sewer system but at some future date may be connected to the system.

B. Record drawings in accordance with these Completion Specifications are required for all existing sanitary sewer facilities which will connect into HSE's sanitary sewer system.

C. The Completion Documentation submitted to HSE must meet the Completion Specifications in effect at the time the documents are submitted.

D. Record Drawing Engineer is responsible for all updates, omissions and revisions to the record drawing set until the sanitary sewer facilities are Conveyed. Furthermore, Record Drawing Engineer is responsible (regardless of the Conveyed status) for all corrections to the record drawing set which are found to be in violation of the Completion Specifications in effect at the time the record drawing set was submitted.

1.04 - Private Sewer Facilities

A. HSE will require an agreement regarding ingress/egress rights for the inspection and maintenance of Private sanitary sewer facilities.

B. All Private sanitary sewer facilities must be tested in accordance with HSE's standards, specifications and details.

C. A maintenance contract will be required by HSE for all Private sanitary sewer facilities. The Private sanitary sewer facilities will need to maintained in accordance with HSE's "Maintenance Specifications for Sanitary Sewer Facilities".

D. If at some point in the future the Subscriber wishes to Convey Private sanitary sewer facilities to HSE, then the Engineer will need to perform a study, including inspection and testing, to determine compliance with all of HSE's requirements. If the sanitary sewer facilities do not comply with the requirements, then HSE may deny Conveyance until the system has been repaired or upgraded to conform to HSE's requirements. Subscriber shall reimburse HSE for Engineer's fees to perform the study.

1.05 - Modifications

A. These Completion Specifications are subject to revision at any time. Any changes that may occur during preparation of the Completion Documentation must be incorporated before approval.

B. Engineer will make final determinations as to the ability to reasonably comply with these Completion Specifications, however, HSE reserves the right to modify or waive any of these Completion Specifications in its best interest.

C. These Completion Specifications are intended to outline the required Completion Documentation for sanitary sewer facilities which are constructed and operated under typical conditions in HSE's service area. Depending on field conditions and the composition and characteristics of the sanitary sewer flow, different or unusual conditions may occur which cannot be anticipated in a document of this nature. Consequently, Engineer may impose additional or special requirements or request additional Completion documentation under such circumstances.

1.06 - Testing

All sanitary sewer facilities, including Private sanitary sewer facilities, will be tested in accordance with procedures outlined on either HSE's Gravity Sanitary Sewer Specifications sheet or Lift Station & Force Main Specifications sheet.

1.07 - Governing Laws, Codes and Regulations

A. Plans, including professional certification, scales, north arrows, capacities, record drawing requirements and other engineering details must meet all applicable laws, codes or regulations and be in accordance with the requirements of all governmental agencies and public entities having jurisdiction.

B. These Completion Specifications shall not be considered as a substitute, nor shall they supersede any state or federal law, code or regulation related to the record drawings. In the event of a conflict between any state or federal law, code or regulation governing the record drawings and these Completion Specifications, the more stringent requirement will apply.

C. All persons on site must abide by all Indiana Occupational Safety and Health Administration ("IOSHA") standards including but not limited to "General Construction Practices" and "Trench Safety Standards".

1.08 - Confined Space Entry

All persons, including but not limited to Subscribers, Contractors, sub-contractors, Design Engineers, Record Drawing Engineers and surveyors must abide by HSE's "General Procedure for Manhole Opening and Entry" or the most recent IOSHA confined space entry standards, which ever is more stringent.

SECTION 2 - COMPLETION DOCUMENTATION

2.01 - Preliminary Documentation to be Submitted

Preliminary documentation must be submitted within thirty (30) days of the date identified on the HSE "Record Drawing Notification" and include the following:

A. From Design Engineer to HSE and Engineer:
   (1) Completion of all outstanding items detailed in Engineer's prior correspondence, including comment review letters, approval letters, etc.
   (2) Current version of the recorded plat (or re-plat, if applicable) with all Certificates of Correction - Send one (1) copy to HSE and one (1) copy to Engineer. Prior to recording the plat, HSE **highly recommends** that the Design Engineer review the minimum horizontal separation distances (from edge of easement to center of sewer) versus Ultimate Depth (from invert to finished grade) to avoid recording additional easements. Required separations must conform to the Minimum Easement Width under the Easements and Deeds section of HSE's "Design Specifications for Sanitary Sewer Facilities".
   (3) Address list.

B. From Design Engineer to Record Drawing Engineer:
   (1) Proposed secondary or current version of the recorded plat (or re-plat, if applicable) with all Certificates of Correction.
   (2) Digital copy of the Site Development Plan in AutoCAD Release 13 (or higher) or compatible DXF file on 3-1/2" disk, CD ROM or electronic mail. If the digital file can not be placed on one disk, then contact Record Drawing Engineer for acceptable compression format or other possible alternatives. The digital copy of the Site Development Plan must be as follows:
      (a) A **single** drawing of the entire Project (including off-site) in the Indiana State Plane Coordinate System (East Zone), NAD 1983 as detailed in HSE's "Horizontal and Vertical Control Data". State Plane Coordinate information is available upon request from Engineer.
      (b) The boundary must tie into two (2) section corners with "lead-ins" drawn from the commencement point.
      (c) Geometrically correct in regards to easements (platted or previously recorded), certificate of corrections, right-of-ways (platted or previously recorded), the boundary, phase lines, lot lines, building lines, streets, etc.
      (d) Labeled correctly in regards to street names, lot numbers, manhole numbers, normal pool/100 year flood elevations, etc.
      (e) Current copy of the Site Development Plan approved by HSE.
      (f) Prepared in accordance with HSE's "Design Specifications for Sanitary Sewer Facilities".
   (3) Digital copy of the Title sheet, Sanitary Sewer (Gravity and Force Main) Plan and Profile sheets, Lift Station Plan sheet (if applicable) and any other sheet

which is necessary to complete the record drawings. The digital copy must be in AutoCAD Release 13 (or higher) or compatible DXF file on 3-1/2" disk, CD ROM or electronic mail. If the digital files can not be placed on one disk, then contact Record Drawing Engineer for acceptable compression format or other possible alternatives. The digital copy of these sheets must be as follows:

(a) Current copy of the construction plans approved by HSE.

(b) Prepared in accordance with HSE's "Design Specifications for Sanitary Sewer Facilities".

(4) Copies of all recorded off-site/on-site easements (sanitary sewer or otherwise) and deeds (for lift station parcels and Projects without a platted boundary).

(5) Copies of all additional off-site/on-site easements. Refer to Additional Easements under the Digital File Requirements section of these Completion Specifications.

(6) Identification of the following:

(a) Sanitary sewer facilities added or not constructed.

(b) Private sanitary sewer facilities.

(c) Lots serviced by grinder/effluent pumps and/or I&A tanks.

(d) Storm sewers that were constructed more than five (5) feet from their design location.

(e) Any changes to the approved construction plans affecting the sanitary sewer facilities.

C. From Contractor to HSE and Engineer:

(1) Completion of all outstanding items detailed in Engineer's prior correspondence, including comment review letters, approval letters, etc.

(2) Construction cost documentation, preferably in the form of a signed AIA Owner/Contractor contract, with all applicable change orders - Send to HSE. **Note:** The construction cost documentation must separate Private versus public (to be Conveyed) sanitary sewer facilities.

(3) HSE "Sanitary Sewer Inventory" form - Send to HSE. **Note:** The "Sanitary Sewer Inventory" form must separate Private versus public (to be Conveyed) sanitary sewer facilities.

(4) Operation and Maintenance manuals for all lift stations (If applicable) - Send to Engineer.

D. From Contractor to Record Drawing Engineer:

(1) HSE "Lateral Location" forms and/or television logs.

(2) Provide timely responses for questions associated with constructed conditions including, pipe sizes, pipe types, concrete encasement/capping, borings, water tight castings, Type 2 clean-outs, fittings, sanitary sewer facilities not constructed, etc.

E. From Subscriber to HSE and Engineer:
   (1) Completion of all outstanding items detailed in Engineer's prior correspondence, including comment review letters, approval letters, etc.
   (2) Proposed or recorded covenants and restrictions with all amendments - Send one (1) copy to HSE and one (1) copy to Engineer. Required covenant language must conform to the Standard Requirements and Conditional Requirements under the Covenants and Restrictions section of HSE's "Design Specifications for Sanitary Sewer Facilities".

F. From Record Drawing Engineer to HSE and Engineer:
   (1) Digital file (As outlined in these Completion Specifications) - Send to Engineer.
   (2) Record drawing set (As outlined in these Completion Specifications) - Send **two (2**) copies to Engineer.
   (3) Copies of all recorded off-site/on-site easements (sanitary sewer or otherwise) - Send to Engineer.
   (4) Copies of all additional off-site/on-site easements - Send to Engineer.
   (5) Copies of the HSE "Sanitary Sewer Record Drawing Information" sheets or field notes for all as-built elevations (inverts, top of castings, including Type 1 and 2 clean-outs, finished floors, etc.) - Send to Engineer.
   (6) Copies of the HSE "Lateral Location" forms or television logs - Send to Engineer.

2.02 - Recorded Plats and Covenants

A. Must be the current recorded (or re-plat, if applicable) version with all amendments or certificates of correction.

B. Must include all items requested by HSE or Engineer in the comment review letters and as outlined in HSE's "Design Specifications for Sanitary Sewer Facilities".

C. Are subject to review and possible revision based on the content of the recorded version.

2.03 - Digital File Requirements

The digital file must be submitted as or indicate the following:

A. AutoCAD Release 13 (or higher) or compatible DXF digital copy on 3-1/2" disk, CD ROM. If the digital file can not be placed on one disk, then contact Engineer for acceptable compression format or other possible alternatives.

B. Single drawing of the entire Project in the Indiana State Plane Coordinate System (East Zone), NAD 1983 as detailed in HSE's "Horizontal and Vertical Control Data".

State Plane Coordinate information is available upon request from Engineer.

C. Tie into two (2) section corners in the Indiana State Plane Coordinate System to insure proper orientation.

D. Current recorded plat (or re-plat, if applicable) information, including the following:
   (1) Easements.
   (2) Right-of-ways.
   (3) **Entire** boundary indicated with a bold line.
   (4) Lot lines.
   (5) Label sub-section or phase lines and indicate with a bold line.
   (6) Building lines.
   (7) Street names.
   (8) Lot numbers.
   (9) Block/common area designations.

E. Addresses on each individual lot, building and/or lift station.
   (1) If a lot has multiple addresses, then indicate an address on each street.
   (2) If a building has multiple addresses, then all addresses must be indicated. For example, strip malls: indicate the building address and all tenant addresses or apartments: indicate all apartment addresses.
   (3) If a lateral was provided to an existing lot or building beyond the platted boundary, then that address must also be provided.
   (4) If available, then provide addresses for common areas.

F. Provide an as-built finished floor elevation and an elevation of the lowest point to have gravity sanitary sewer service (if other than the finished floor elevation) for **all** buildings or structures, except single family residences within a new platted subdivision, which are connected to the sanitary sewer facilities. **Also**, provide the following:
   (1) Add a concise description of where the elevations were obtained. Refer to Sanitary Sewer Plan and Profiles under the Record Drawing Set section of these Completion Specifications for further as-built elevation requirements.
   (2) Add a leader pointing to the approximate location of where the elevations were obtained.

G. Graphical representation of all off-site platted easements, right-of-ways, lot lines, building lines, etc. encompassing sanitary sewer facilities constructed with the Project.

H. Graphical representation of the entire boundary for all recorded off-site and on-site easements (affecting the sanitary sewer facilities or crossing within the boundary of the Project) and deeds (for lift station parcels) with their corresponding instrument

numbers.

(1) Provide copies of recorded easements to Engineer.
(2) Indicate the name of the grantee(s).
(3) It may be necessary to add leaders to distinguish the boundaries.

I. Graphical representation of all Certificates of Correction (affecting sanitary sewer facilities or otherwise) with their corresponding instrument numbers.

J. The digital file must be revised so that all sanitary sewer manholes, lift stations (wet well and valve vault), air/vacuum relief manholes, force main/lateral clean-outs, isolation/service valves, force mains (includes common force mains), grinder/effluent pumps, I&A tanks, force main/lateral fittings, wyes, lateral markers, end of stubs (if longer than twenty (20) feet) and special structures (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) constructed with the Project <u>are relocated to their **exact as-built** location</u>. Please remove the plan location of these structures from the digital file.

(1) The coordinate location of all sanitary sewer manholes, lift stations (wet well and valve vault), air/vacuum relief manholes, force main/lateral clean-outs, isolation/service valves, force mains, grinder/effluent pump stations, I&A tanks, force main fittings, lateral markers, end of stubs (if longer than 20 feet) and special structures (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) must be obtained by a field survey. The required accuracy of these horizontal coordinates is +/- 0.50 feet.

(2) The coordinate location of all sanitary sewer manholes, lift stations (wet well and valve vault), air/vacuum relief manholes, force main clean-outs, isolation/service valves, grinder/effluent pump stations, I&A tanks and special structures (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) must be those associated with the **<u>center of the structure (not the center of the casting).</u>** The coordinate location of all lateral clean-outs must be those associated with the **<u>center of the casting</u>** (since there is no subsurface structure).

(3) A horizontal coordinate is required every five hundred (500) feet (maximum interval), at <u>all</u> fittings (ells, tees, valves and adapters), low points and fiberglass field markers for all force mains.

(4) The coordinate location of all lateral markers and end of stubs (if longer than twenty (20) feet) must be those at the point where the painted green 2" x 4" enters the ground.

(5) The coordinate location of all wyes is generally supplied to the Record Drawing Engineer by the Contractor using either the HSE "Lateral Location" form or television logs. The as-built location of the wye station must be supplied by measuring along the pipe section and assigning a station to each connection from the **<u>center of the nearest downstream manhole</u>**. An accuracy of two (2) +/- feet is required for the Contractor's measurement.

(6) Unless a fitting was installed, draw a single line connecting the surveyed location of the lateral marker to the as-built wye station.
   (a) Do not indicate a forty-five (45) degree fitting at the main.
   (b) If a horizontal fitting (other than the forty-five (45) degree fitting at the main) was installed, then the digital file must indicate the correct angle of the fitting.
   (c) Draw a straight line between the as-built wye station, clean-outs, fittings, etc.

(7) If a stub was installed in a manhole, then graphically indicate the stub. For short stubs (less than twenty (20) feet), indicate the stub at ten (10) feet long so that it is visible within the drawing.

K. Clearly label all structure numbers – Do not provide the as-built manhole and pipe information in the digital file.

L. Indicate all existing sanitary sewer facilities crossing the Project boundary (whether constructed with the Project or otherwise) in their as-built location. They must be displayed as a "screened" line type. This includes stubs (usually greater than twenty (20) feet), interceptors, force mains, wyes and laterals, etc.

M. Indicate all pavement within the boundary of the Project and off-site pavement constructed to service the Project.

N. Indicate the top of bank and 100 year flood/normal pool elevations of all nearby water ways (including, but not limited to, lakes, ponds, streams and emergency spillways or storm water routing) in the NAVD 1988 vertical datum. If the record drawing elevations are based on a different vertical datum than the construction plans, then 100 year flood/normal pool elevations must be modified to the record drawing datum. Also, identify the vertical datum with the 100 year flood/normal pool elevation/s.

O. Indicate storm sewers in their proposed location unless the as-built location varies more than five (5) feet from the design location. If storm sewers have been relocated by more than five (5) feet, then an approximate as-built location is required.

P. Graphical representation and labeling of all concrete capping and encasement of any sanitary sewer facilities (main lines, laterals, wyes, etc.) in its **exact** as-built location.

Q. Additional Easements:
(1) Based on review of the digital file, additional easements will be required for sanitary sewer facilities if the minimum separation distances (from edge of easement to center of sewer) versus Ultimate Depth (from invert to finished grade) are not maintained. Required separations must conform to the Minimum Easement Width under the Easements and Deeds section of HSE's

"Design Specifications for Sanitary Sewer Facilities". If ownership of the property has been transferred, then an easement granted by the current property owner to HSE will be required. A Surveyor's Correction would be inappropriate and will not be accepted by HSE.

(2) Additional easements may be required due to the configuration of and/or to provide access to sanitary sewer facilities.

(3) Easements must be prepared as outlined in Off-site Easements under the Easements and Deeds section of HSE's "Design Specifications for Sanitary Sewer Facilities". In order to avoid problems, HSE requests that all documentation (easement language, legal description and scaled drawing) be reviewed prior to being recorded.

(4) HSE may withhold connection permits to lots requiring additional easements.

R. Miscellaneous:

(1) If laterals were previously constructed with another Project, then the as-built wye station and lateral length must be indicated on each individual lot.

(2) If a lateral is to be abandoned, then indicate a "bubbled" note at the end of the lateral that states, "This lateral to be abandoned in place."

(3) If a lateral was extended, removed, cut-back, etc. then indicate the lateral in its modified location.

(4) If a lateral marker is not present (and can not be located) and the lateral marker is between the upstream and downstream manhole, then indicate a "bubbled" note at the end of the lateral that states, "The lateral marker for (provide lot number or building name) was not surveyed. The lateral is indicated at a 90 degree angle from the sewer main." In this instance, indicate the end of the lateral perpendicular to the sewer main at the design distance.

(5) If a lateral marker is not present (and can not be located) and the lateral marker extends beyond the upstream manhole, then indicate a "bubbled" note at the end of the lateral that states, "The lateral marker for (provide lot number or building name) was not surveyed and is indicated in its design location." In this instance, indicate the end of the lateral in its design location.

(6) If a wye station was not provided (and can not be located) and the end of the lateral is between the upstream and downstream manhole, then indicate a "bubbled" note at the end of the lateral that states, "The wye station for (provide lot number or building name) is not available. The lateral is indicated at a 90 degree angle from the lateral marker to the sewer main." In this instance, draw the lateral from the surveyed location of the lateral marker perpendicular to the sewer main.

(7) If a lateral marker exists on a lot or property other than the one the lateral is intended to service, then indicate a "bubbled" note at the end of the lateral that states, "This lateral services (provide the lot number or building name)."

(8) If any portion of a lateral is to be considered Private, then indicate a "bubbled" note pointing to the lateral that states, "The (entire lateral or the lateral from provide beginning and ending stations) servicing (provide name of building) is private and will not be conveyed to Hamilton Southeastern Utilities, Inc." Add this note to the plan view near the respective lateral.

(9) If a Type 2 clean-out was installed on a lateral, then the clean-out must be labeled (as a "Type 2 clean-out"), located in its as-built location and indicated with its top of casting elevation.

(10) If a Type 2 clean-out will be installed on a lateral, then indicate a "bubbled" note on each individual lot that states, "The builder will construct Type 2 clean-outs on the lateral servicing (provide lot number or building name)."

(11) If the Project involves the construction of buildings other than separate single family homes within a subdivision, then Type 1 clean-outs must be labeled (as a "Type 1 clean-out"), located in their as-built location and indicated with their top of casting elevations.

(12) If a lot or building will be serviced by a grinder/effluent pump, then:

(a) Indicate and label the approximate location of the transition from pressure service to gravity service.

(b) Add a "bubbled" note that states, "Per the contractor, (provide lot number or building name) is serviced by a grinder/effluent pump" to each individual lot. Prior to adding this note please verify this information with the Contractor.

(c) If the service line (from the pump station to the main line) is greater than fifty (50) feet, then provide the as-built location of the service line.

(13) If a lot or building is serviced by a grinder/effluent pump and/or I&A tank and they will be maintained or inspected by HSE, then the pump station and/or tank must be labeled, located in its as-built location and indicated with its top of casting elevation.

(14) If a special structure (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) was installed, then the structure must be labeled and the top of casting elevation must appear in the digital file.

(15) If the sanitary sewer facilities were constructed by a bore installed with a casing, then the casing must be labeled and graphically appear in its **exact** as-built location.

(16) If access drives and/or gates were installed for maintenance purposes, then the drives and/or gates must be labeled and appear in their approximate location.

(17) If a sanitary sewer manhole was removed during construction, then indicate a "bubbled" note at the removed manhole location that states, "Per the contractor, MH # (provide manhole number) was removed."

(18) If existing sanitary sewer structures exist within the Project boundary (whether constructed with the Project or otherwise) and the structures do not appear on a plan and profile sheet, then provide a "bubbled" as-built top of

casting elevation near the structure in the digital file.

(19) If the Engineer's Daily Inspection Reports indicate special construction situations, then Engineer will request that "bubbled" notes be added near the respective situation dating and detailing the Daily Inspection Reports.

(20) If the Design Engineer and Record Drawing Engineer are not from the same company, then add a "bubbled" note that states, "The base information for these record drawings was prepared by (provide the Design Engineer's company name)."

(21) If miscellaneous documents (Waiver of Responsibility, Sewer Service Agreement, Declaration of Sewer Restrictions, etc.) were recorded for the Project, then add a "bubbled" note that states, "(provide name of document and purpose of document) was recorded as instrument number (provide instrument number)."

2.04 - Record Drawing Set

A. General:

(1) Engineer must review Completion Documentation, as HSE's representative, for compliance with these Completion Specifications.

(2) Submit two (2) **complete** sets of record drawings with all supporting documentation.

(3) Every sheet of the record drawing set must display or be prepared as follows:

(a) Current name of the Project, including section/phase number.

(b) A copy of the HSE "Record Drawing Certification" (Refer to Figure 1-1) indicating the following:

(i) Stamped by an appropriately registered Indiana professional.

(ii) Signed.

(iii) Dated.

(iv) Representing (Company name).

(c) All drawings must be plotted with a horizontal scale of 1" = 10', 20', 30', 40', 50' or 60' and a vertical scale of 1" = 1', 2', 3', 4', 5', or 6'. The scale of the drawing shall present the information clearly and allow Engineer the ability to scale dimensions. If Engineer has difficulty scaling dimensions or reading the data, then Record Drawing Engineer may be requested to re-plot drawings at a different scale.

(d) All drawings must be true to scale and submitted on 24" x 36" sheets.

(e) The scale and a north arrow must be indicated.

(f) The originating and at least one (1) local benchmark (within one thousand (1000) feet of the boundary of the Project) with a concise description and basis of vertical datum (NAVD 1988). The originating benchmark must be an HSE approved vertical control monument detailed in HSE's "Horizontal and Vertical Control Data".

Benchmark information is available upon request from Engineer.

(g) All dimensions, distances, elevations, etc. shall be displayed in feet, except pipe diameters which shall be displayed in inches.

B. Title sheet - The Title sheet must be labeled as "Record Drawings".

C. Digital file

(1) The record drawing set must include a **plotted and certified** copy of the digital file.

(2) The plot of the digital file shall minimize extraneous information. For example, topography, plat labels and dimensions, street grades, pad grades, as-built manhole and pipe information, future lot lines and lot numbers, as-built lateral lengths and wye stations (if also included on Sanitary Sewer Plan and Profile sheets), etc. If extraneous information is to remain then plat labels and dimensions, as-built manhole and pipe information, as-built lateral lengths and wye stations, etc. must be accurate.

(3) Circle or "bubble" all as-built related notes.

(4) The line work in the digital file must be as follows:

(a) The line work for sewers and force mains must be redrawn to connect to the as-built location of the center of each manhole.

(b) Sewers, force mains, laterals, etc. must be drawn in two (2) dimensions. No vertical dimension.

(c) The lines must be a single, solid, continuous line intersecting (with no gaps or overlaps) at the appropriate locations.

(d) Manhole symbols must be placed at the intersection of the sewers.

D. Sanitary Sewer Plan and Profiles (Gravity and Force Main):

(1) The plan and profile sheets must be generated from the construction plan and profile sheets with all design information neatly crossed out and replaced with the as-built information.

(2) Record Drawing Engineer should contact Engineer to discuss the stationing requirements of common force mains.

(3) The horizontal location of all sanitary sewer manholes, lift stations (wet well and valve vault), air/vacuum relief manholes, isolation/service valves, force main/lateral clean-outs, sanitary sewers, force mains and special structures (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) must be graphically relocated in the plan view **and** profile if the as-built location varies more than ten (10) feet from the design location.

(4) The horizontal location of all wyes and laterals must be graphically relocated in the plan view if the wye was relocated to a segment of sewer between different manholes than was originally indicated in the construction drawings.

(5) The plan view must indicate the as-built wye station (from the **center of the nearest downstream manhole**) and lateral length for all laterals constructed

with the Project.

(a) The wye station should correspond with either the HSE "Lateral Location" form or television log supplied by the Contractor. If the distance indicated in the television log from manhole to manhole is not within two (2) feet of the as-built distance, then the wye stations must be recalculated using a prorated distance.

(b) The lateral length must be the horizontal distance in the digital file from the lateral marker to where the wye connects into the sanitary sewer main. Do not supply the length of connection from HSE's "Lateral Location" form.

(c) If a lateral connects directly into a manhole, then indicate the station as "Out of manhole".

(d) If information has not changed, then place a check mark or other symbol near the value to indicate it is as-built data and was field verified.

(6) The plan view must indicate the current lot number or building designation (number, address, name, etc.) for each wye and lateral installed with the Project.

(7) The plan view must indicate the current street names.

(8) The plan view must indicate the horizontal orientation of all stubs.

(9) All sanitary sewer manhole, lift station, air/vacuum relief manhole and isolation/service valve top of casting/invert elevations, force main/lateral clean-out and special structure (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) top of casting elevations, force main and force main fitting elevations, upstream invert elevation of stubs (if longer than 20 feet), distances and slopes must be as-built in the profile, per the following requirements:

(a) All elevations must be on the NAVD 1988 datum and this must be indicated on the record drawings as previously mentioned.

(b) A level circuit with third order accuracy must be run through/for all sanitary sewer manhole, lift station, air/vacuum relief manhole, force main/lateral clean-out, isolation/service valve, grinder/effluent pump station, I&A tank, end of stub (if longer than 20 feet) and special structure (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) top of casting and invert elevations. The level circuit must be a "closed-loop" and each casting must be a turning point. Elevations obtained through side shots or radial means are **not** acceptable.

(c) Casting elevations must be taken on the rim of the casting. In situations where the casting is sloped significantly, the elevation must be taken at a point that reflects the **lowest** casting elevation.

(d) **All** top of casting and invert elevations of existing tie-in manholes must be verified. If information has not changed, then place a check

mark or other symbol near the value to indicate it is as-built data and was field verified.

(e) All invert elevations of stub, top and bottom drop, lateral and force main connections must be provided for all sanitary sewer manholes.

(f) All invert elevations must indicate the direction of connection (east, west, etc.).

(g) If a structure appears multiple times in the record drawing set, then **all** as-built top of casting and invert elevations must be revised in each profile.

(h) Invert elevations of the force main are required at all air/vacuum relief manholes and isolation/service valves.

(i) A vertical elevation is required every five hundred (500) feet (maximum interval), at **all** fittings (ells, tees, valves and adapters) and low points for all force mains. Force main elevations **may** be obtained radially.

(j) If a stub (twenty (20) feet or longer) is installed, then an invert elevation must be obtained in the manhole and at the upstream invert of the stub.

(k) All elevations must correspond with the Sanitary Sewer Record Drawing Information sheets or field notes supplied by the Record Drawing Engineer.

(l) All as-built top of casting and invert elevations must be indicated to the hundredth of a foot and display all significant digits. For example, 80.05 is not acceptable. It must read 780.05.

(m) All distances must be measured from **center of manhole to center of manhole (not center of casting to center of casting)** and be rounded to the nearest foot.

(n) All slopes must be rounded to the hundredth of a percent.

(o) If information has not changed, then place a check mark or other symbol near the value to indicate it is as-built data and was field verified.

(10) In the profile, sewer/force main pipe types **and** wall thickness class (For example, PVC SDR 35, Ductile Iron Class 51) and pipe diameters must be as-built through verification with the Contractor. After verification, revise the appropriate profiles. **Note:** If the pipe designation is other than ASTM D-3034, then **also** provide the appropriate designation. For example, ASTM D-2241, ASTM F-679, AWWA C-900, AWWA C-905, etc.

(11) In the profile, the diameter and direction of connection (east, west, etc.) of all non-profiled pipes must be provided in each manhole.

(12) In the profile, the pipe type **and** wall thickness class must be indicated for all stubs, no matter the length.

(13) If a sanitary sewer structure was added, then the structure shall appear in the plan view **and** profile with all appropriate as-built information as detailed in

these Completion Specifications.

(14) If a sanitary sewer manhole was removed when sanitary sewer facilities were extended then:
   (a) In the plan view, indicate the next downstream manhole.
   (b) In the profile, indicate the next downstream manhole with as-built top of casting and invert elevations.
   (c) In the profile, provide as-built pipe information (size, type and wall thickness class, distance, slope, etc.) **for both** the removed manhole to the next upstream manhole **and** overall information from the next downstream manhole to the next upstream manhole.

(15) If the main line sanitary sewer facilities are concrete capped/encased (generally due to less than five (5) feet of cover), then:
   (a) The profile must graphically indicate any concrete capping or encasement.
   (b) Add a "bubbled" note to the profile near the appropriate stations that states, "Per the contractor, (provide linear footage) +/- feet of concrete cap/encasement was installed from station (provide beginning station) to (provide ending station)" to the respective sheet. Prior to adding this note please verify this information with the Contractor.

(16) If laterals are concrete capped/encased (generally due to less than five (5) feet of cover), then:
   (a) The plan view must label the concrete and graphically indicate any concrete capping or encasement.
   (b) Add a "bubbled" note to the plan view near the appropriate lot/building that states, "Per the contractor, the laterals servicing (provide lot number or building name) were concrete capped/encased from (provide beginning station) to (provide ending station)." to the respective sheet. Prior to adding this note please verify this information with the Contractor.

(17) If wyes are concrete capped (generally connecting onto main line sewers with greater than twelve (12) feet of cover), then:
   (a) The plan view must label the concrete and graphically indicate the concrete capping.
   (b) Add a "bubbled" note to the plan view near the appropriate lot that states, "Per the contractor, the wyes servicing (provide lot number or building name) were concrete capped." to the respective sheet. Prior to adding this note please verify this information with the Contractor.

(18) If main line sewers or laterals were **not** concrete capped/encased as indicated on the construction plans, then:
   (a) Neatly strike out the concrete symbol and the note from the construction drawings referencing concrete capping or encasement on the respective sheet.

(b) Add a "bubbled" note to the plan view or profile near the appropriate location that states, "Per the contractor, concrete capping/encasement was not installed (explain the situation)." on the respective sheet. Prior to striking out/adding the notes please verify this information with the Contractor.

(19) If the sanitary sewer facilities were installed by boring, then

(a) If a casing was installed, then the casing must be graphically indicated in the profile.

(b) For bores with a casing, add a "bubbled" note to the profile near the appropriate stations that states, "Per the contractor, a (provide size) inch casing was installed from station (provide beginning station) to (provide ending station)." to the respective sheet. Prior to adding this note please verify this information with the Contractor.

(c) For directional bores, add a "bubbled" note to the profile near the appropriate stations that states, "Per the contractor, the sanitary sewer was installed as a directional bore from station (provide beginning station) to (provide ending station)." to the respective sheet. Prior to adding this note please verify this information with the Contractor.

(20) The following "bubbled" notes are required on **all** Plan and Profile sheets (Gravity and Force Main). The notes must be added to an "As-built Notes" section. Prior to adding any notes, the information must be verified with the Contractor.

(a) "Per the contractor, all pipe diameters and pipe types were constructed as indicated in these record drawings".

(b) "Refer to the as-built Site/Development Plan for accurate graphic representation of wye and lateral locations. Graphical location of the wyes and laterals in the plan view is per design."

(21) The following "bubbled" notes must appear on the respective Plan and Profile sheets in the following situations. Prior to adding any notes, the information must be verified with the Contractor.

(a) If watertight bolted and gasketed manhole castings were installed, then add "Per the contractor, watertight bolted and gasketed castings were installed for MH's # (provide manhole numbers)." Add this note to the profile near the respective manhole.

(b) If manholes were coated with calcium aluminate, then add "Per the contractor, the entire interior of MH #'s (provide manhole numbers) was coated with calcium aluminate." Add this note to the profile near the respective manhole.

(c) If manholes were installed as one piece fiberglass reinforced polyester manholes, then add "Per the contractor, MH #'s (provide manhole numbers) were installed as one piece fiberglass reinforced polyester manholes." Add this note to the profile near the respective manhole.

(d) If a manhole was installed with a diameter greater than four (4) feet,

then add "Per the contractor, (provide diameter) foot diameter base and barrel sections were installed for MH's # (provide manhole numbers)." Add this note to the profile near the respective manhole.

(e) If a flow monitoring or sampling device was installed in a manhole, then add notes near the respective manhole detailing the type, model number, options, etc. of the equipment.

(f) If a bench wall was not installed in a manhole (For example, an end run manhole or flow monitoring manhole), then add "Per the contractor, MH # (provide manhole number) was not installed with a bench wall." Add this note to the profile near the respective manhole.

(g) If an internal drop was constructed within a manhole, then add "Per the contractor, an internal drop was constructed within MH # (provide manhole number). All internal piping was constructed as (provide pipe diameter) inch class (provide wall thickness class) ductile iron pipe." Add this note to the profile near the respective manhole. **Also**, provide an invert at the capped tee (top) and the discharge elevation (bottom).

(h) If a lateral was connected to a deep manhole to avoid connection onto a deep interceptor, then add "Per the contractor, the lateral servicing (provide lot number or building name) was installed with a Press Wedge II boot and the bench wall was formed to receive flow from the lateral. The lateral and fittings were constructed of class (provide wall thickness class) ductile iron pipe." Add this note to the profile near the respective manhole.

(i) If a lateral was installed with a pipe type other then PVC SDR 35, ASTM D-3034 then add "Per the contractor, the lateral servicing (provide lot number or building name) was installed as (provide pipe type, wall thickness class and pipe designation)." Add this note to the plan view near the appropriate lot or building.

(j) If a fitting was installed to transition from one type of pipe to another, then add "Per the contractor, a transition fitting was installed at station (provide station)." Add this note to the profile near the respective station. Also, the profile must be modified to indicate the length and pipe type (with wall thickness class) of each segment.

(k) If a force main connects into a wye and a plug valve was added, then add "Per the contractor, a plug valve and valve box lettered "Sewer" was installed at station (provide station along the force main)." Add this note to the profile near the valve.

(l) If air/vacuum relief valves were installed on force mains, then add "Per the contractor an (provide the type of valve – air/vacuum or air only) relief valve was installed". Add this note to the profile near the respective valve.

(m) If valves were installed on force mains, then add "Per the contractor a (provide size, manufacturer, model number and type of valve) with (provide type of valve stem – key or plug) type valve stem was installed". Add this note to the profile near the respective valve.

(n) If portions of the sanitary sewer facilities are **not** going to be Conveyed to HSE, then add "MH # (provide manhole number) to MH # (provide manhole number) are private sewers and will not be conveyed to HSE". Add this note to the profile near the respective manholes.

(o) If any portion of the Project has not been built, then add "MH # (provide manhole number) to MH # (provide manhole number) was not constructed." Add this note to the profile near the respective manholes.

(p) If any portion of the existing sanitary sewer facilities (laterals, manholes, sewers, force mains, etc.) was disconnected or removed, then add "Per the contractor, the (describe what **and** how was removed or disconnected)." Add this note to the plan view or profile near the respective item.

(q) If an odor control facility was installed, then add "Per the contractor, (describe the type **and** location of the odor control)." Add this note to the plan view or profile near the respective structure.

(r) If the Engineer's Daily Inspection Reports indicate special construction situations, then Engineer will request that notes be added near the respective situation dating and detailing the Daily Inspection Reports.

(s) If the Design Engineer and Record Drawing Engineer are not from the same company, then add "The base information for these record drawings was prepared by (provide the Design Engineer's company name)." Add this note to the "As-built Notes" section on the respective sheets.

(22) Circle or "bubble" all as-built related notes.

E. Lift Station Plan sheet (If applicable)

(1) As-built elevations must be provided in the Elevation Chart for all influent inverts, top and bottom of wet well, and top and bottom of valve vault.

(2) As-built dimensions must be provided in the Dimension Chart for all influent sewers, force main and wet well diameters.

(3) If the Design Engineer and Record Drawing Engineer are not from the same company, then add a "bubbled" note which states, "The base information for these record drawings was prepared by (provide the Design Engineer's company name)."

F. Detail sheet or Shop Drawings - HSE may request as-built copies (regarding

manufacturer, model number, size, capacity, configuration, etc.) of special structures affecting the sanitary sewer facilities which are not detailed on HSE's "Gravity Sanitary Sewer Details" sheet, "Lift Station and Force Main Details" sheet and "Duplex/Triplex Lift Station Plan" sheets.

G. Approval

(1) The digital file and record drawing set will not be approved until all sheets comply with these Completion Specifications. Therefore, the digital file and record drawing set may need to be resubmitted for additional reviews based on thorough compliance with these Completion Specifications and all record drawing review letters.

(2) Preliminary Plan Review ("PPR") fees are charged for review of the original submittal of the Completion Documentation, generation of a record drawing review letter (if necessary) and then review of a second set of Completion Documentation. If Engineer is required to generate subsequent record drawing review letters, then Subscriber will be charged additional Record Drawing review fees.

(3) To expedite the approval process, Engineer recommends that a letter, detailing the actions taken in response to each item of the record drawing review letter, accompany each set of revised plans.

(4) Upon satisfactorily addressing all digital file and record drawing set requirements, Record Drawing Engineer will receive formal written approval from Engineer. At this time, Record Drawing Engineer must supply Engineer with one (1) complete set of mylar documents and two (2) complete sets of blue line documents.

(5) Approval will be evidenced by an "Approved - Hamilton Southeastern Utilities, Inc." date stamp on the record drawing set. This set will be distributed to the Engineer.

(6) After the sanitary sewer facilities are conveyed and the record drawing set is approved, Engineer reserves the right to modify the record drawing set. If Engineer modifies the record drawing set it will be evidenced by a note dating and describing the revision.

2.05 - Standard Forms

HSE's standard forms must be used for the following documents:

A. Recorded easements

B. Sanitary Sewer Record Drawing Information sheets

C. Sanitary Sewer Inventory form

D. Lateral Location forms

E. Certificate of Substantial Completion ("CSC")

SECTION 3 - COMPLETION

3.01 - Responsibilities

Prior to Completion, sanitary sewer service is not permitted to flow through the Project's sanitary sewer facilities. The sewers will be considered Complete upon satisfactory compliance and review of the following:

A. Construction of all downstream sanitary sewer facilities necessary to provide a Complete and operable system including, but not limited to, all gravity sewers, lift stations, force mains and appurtenances.

B. Satisfactory performance of all tests:
   (1) All testing (except manhole vacuum testing) must not be conducted until after the later of the following:
      (a) The final backfill has been in place for at least thirty (30) days.
      (b) All other utilities have been installed
      (c) At the Engineer's discretion, testing may be delayed or additional testing may be required, based upon weather conditions (inadequate precipitation to allow for adequate settlement, temperature variance between mandrel and pipe, etc.) Also, testing may be delayed or additional testing may be required due to the installation of site improvements (including but not limited to fencing, signage, landscaping, site lighting and other sub surface improvements).
      (d) If the Subscriber requires sanitary sewer service prior to final testing, a preliminary test may be performed, however, Subscriber must provide, in writing, a guarantee that all cleaning and testing will be performed per the construction plans and HSE's then current standards, specifications and details.
   (2) Please refer to HSE's Gravity Sanitary Sewer Specifications and Lift Station & Force Main Specifications for further information.

C. Satisfactory compliance with all items identified during inspections:
   (1) After all testing has been successfully completed, Engineer shall perform an inspection of the sanitary sewer facilities and provide Contractor a written summary of items, or punch list, which require corrective action. Contractor shall complete all punch list items within twenty-one (21) days of issuance. If, in the opinion of the Engineer, the punch list has not been completed, then the Contractor shall pay HSE $100 per day damages until the Engineer deems the punch list is complete. Engineer will make final determinations as to the appropriate method of repair or replacement.

(2) Sanitary sewer manhole, lift station, air/vacuum relief manhole, force main/lateral clean-out, isolation/service valve, grinder/effluent pump station, I&A tank and special structure (including grease traps, grit traps, oil/water separators, neutralization tanks, etc.) top of castings may need to be raised after final grading for the following reasons:
   (a) To insure drainage away from the structure.
   (b) To insure that the casting is eighteen (18) inches above the 100 year flood elevation of all nearby water ways (including, but not limited to, lakes, ponds, streams and emergency spillways).

(3) HSE may perform field inspections after final build-out to verify compliance with its "Design Specifications for Sanitary Sewer Facilities." For example, shop drawings, landscaping requirements, etc. If a violation exists then the Subscriber must immediately remedy the situation.

(4) Sanitary sewer facilities constructed in violation of HSE's design standards, details, specifications, master plan and comment review letters may not be considered Complete by HSE.

D. Completion Documentation from Design Engineer:

(1) Current version of the recorded plat (or re-plat, if applicable) with all Certificates of Correction (If previously not supplied) - Send one (1) copy to HSE and one (1) copy to Engineer.

(2) Preparation of all additional easements required by Engineer. Refer to Additional Easements under the Digital File Requirements section of these Completion Specifications.

(3) During Design Engineer's role in a Project, all Certificates of Correction to the plat/off-site easements (sanitary sewer or otherwise) must be submitted to Engineer. Engineer will coordinate incorporating these changes in the Completion Documentation.

(4) Completion of all outstanding items detailed in Engineer's correspondence, including letters received as a result of the record drawing review. To expedite the process, Engineer recommends that a letter, detailing the actions taken in response to each item, be submitted within thirty (30) days from the date of the letter.

(5) All items previously identified as preliminary documents to be submitted.

E. Completion Documentation from Record Drawing Engineer:

(1) Digital file and record drawing set - Send to Engineer.

(2) Completion of all outstanding items detailed in Engineer's correspondence, including letters received as a result of the record drawing review. To expedite the process, Engineer recommends that a letter, detailing the actions taken in response to each item, be submitted within the time frame noted in all correspondence.

(3) All items previously identified as preliminary documents to be submitted.

F. Completion Documentation from Contractor:

(1) Three year maintenance bond (Longer if required by Engineer) - Send to HSE.

(2) Signature of the Certificate of Substantial Completion ("CSC") by the Contractor. The CSC is generated upon receipt of the construction cost documentation with all applicable change orders and a HSE "Sanitary Sewer Inventory" form. The Subscriber, Contractor, Engineer and HSE sign the CSC. Send signed copy to HSE or as directed.

(3) Receipt of Final Payment (If HSE funds are involved) - Send to HSE.

(4) Release or Waiver of liens (If HSE funds are involved) - Send to HSE.

(5) Completion of all outstanding items detailed in Engineer's correspondence, including letters received as a result of the record drawing review. To expedite the process, Engineer recommends that a letter, detailing the actions taken in response to each item, be submitted within thirty (30) days from the date of the letter.

(6) All items previously identified as preliminary documents to be submitted.

G. Completion Documentation from Subscriber:

(1) Payment of all fees due to HSE and Engineer. Please contact HSE for a summary of outstanding costs, fees or invoices. Send all payments to HSE.

(2) Signature of the Certificate of Substantial Completion ("CSC") by the Subscriber. The CSC is generated upon receipt of the Construction cost documentation with all applicable change orders and a HSE "Sanitary Sewer Inventory" form. The Subscriber, Contractor, Engineer and HSE sign the CSC. Send signed copy to HSE or as directed.

(3) Recorded covenants and restrictions with all amendments (If previously not supplied) - Send one (1) copy to HSE and one (1) copy to Engineer. Required covenant language must conform to the Standard Requirements and Conditional Requirements under the Covenants and Restrictions section of HSE's "Design Specifications for Sanitary Sewer Facilities".

(4) Perpetual rights of entry for inspection purposes with the necessary keys, access codes, etc. for all Projects with access gates or security systems. Send all necessary items to HSE.

(5) Completion of all outstanding items detailed in Engineer's correspondence, including letters received as a result of the record drawing review. To expedite the process, Engineer recommends that a letter, detailing the actions taken in response to each item, be submitted within thirty (30) days from the date of the letter.

(6) All items previously identified as preliminary documents to be submitted.

H. HSE reserves the right to require any other information required under HSE's "Special Contract for Extension of Sewer Mains and Facilities" or deemed necessary to accomplish its purposes.

3.02 - Timeliness of Documents to be Submitted

A. Preliminary Documents to be Submitted - HSE may withhold connection permits in the applicable subdivision/development or any upstream subdivision/development if this information has not been supplied within thirty (30) days of the date identified on the HSE "Record Drawing Notification". If the Completion Documentation has not been provided within sixty (60) days of the date of this notification, HSE may procure the services necessary to generate or otherwise acquire the record drawing set and other Completion Documentation at Subscriber's expense.

B. Record Drawing Review letters - If review comments are not properly addressed in the documents within thirty (30) days of the issuance of the letter, then HSE may withhold connection permits in the applicable subdivision/development or any upstream subdivision/development.

C. Completion Documentation - HSE may withhold connection permits for the applicable subdivision/development or any upstream subdivision/development if any of the information requested in these Completion Specifications has not been supplied within sixty (60) days of the date identified on the HSE "Record Drawing Notification".

3.03 - Proper Execution of Documentation

A. A duly authorized person must execute all forms and documents. The original forms and documents must be submitted to Engineer.

B. If a person is executing a document, drawing or form as a registered professional, the execution, stamping, dating must be in compliance with applicable Indiana law. Any document, drawing or form must display the company name.

C. All forms and documents must be legible with all requested information supplied.

3.04 - Expiration of Construction Plan Approval

A. Construction plan approval will be valid for a period of six (6) months from the date of the approval stamp. Extensions of this time limit may be requested from Engineer if extenuating circumstances exist. Engineer's decision regarding time extensions will be final. After the date of expiration, HSE reserves the right to require revisions to the approved construction plans based on the current design standards, details, specifications and master plan.

B. If any portion of the Project has not been finished, then separate Completion

Documentation will be required for that portion of the sanitary sewer facilities.

SECTION 4 - IMPROVEMENT LOCATION PERMITS ("ILP")

4.01 - Applicability

A. Record drawings in accordance with these Completion Specifications are required for all buildings and structures connecting to HSE's sanitary sewer system.

B. For the purpose of these Completion Specifications, ILPs are all other Projects except single family residential subdivisions.

4.02 - General Requirements

A. At a minimum, include the following:
   (1) The as-built location of all sanitary sewer facilities per the requirements of these Completion Specifications.
   (2) A bold line, indicating the **entire** overall boundary of the Project site.
   (3) The plan location of all structures including buildings, pools, playing fields, etc.
   (4) The plan location of all asphalt or concrete surfaces including streets, parking lots, sidewalks, etc.
   (5) Street names.
   (6) Graphical representation of all easements (sanitary sewer or otherwise) and right-of-ways within the boundary of the Project site with their corresponding instrument numbers.

B. Comply with all other applicable items previously mentioned in these Completion Specifications.

C. Engineer recognizes that certain Projects involve the construction of buildings (apartments, etc.) which will have a long "build-out" period. Therefore, it may not be possible to supply all information necessary to complete the record drawing set. In these instances, Engineer will require that the record drawing set be made as complete as possible and a time frame be given as to when the Subscriber anticipates finishing the outstanding items.

D. For apartment Projects, Record Drawing Engineer must provide an as-built finished floor elevation and an elevation of the lowest point to have gravity sanitary sewer service (if other than the finished floor elevation) as the elevations become available for every five (5) apartment buildings.