

This document was prepared by:  
When recorded, return to:

John Mishevski  
Commonwealth Edison Company  
Three Lincoln Centre 4<sup>th</sup> FL NE  
Oakbrook Terrace, IL 60181

## SEWER EASEMENT AGREEMENT

THIS Sewer Easement Agreement (“Easement”) is made as of this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between COMMONWEALTH EDISON COMPANY, an Illinois corporation (“Grantor”), with a mailing address of Three Lincoln Centre, 4<sup>th</sup> FL, Oakbrook Terrace Illinois 60181, and The City of Aurora, 44 E Downer Place Aurora, IL 60505 (“Grantee”).

### RECITALS:

A. Grantor is the owner of a parcel of land in Aurora, County of DuPage and State of Illinois, commonly known as Electric Junction Waterman parcel 2 &4, described in Exhibit A attached hereto and made a part hereof (“Grantor’s Property”).

B. Grantor utilizes Grantor’s Property for Grantor’s own business operations, which operations, for purposes hereof, shall include without limitation the construction, reconstruction, maintenance, repair, upgrade, expansion, addition, renewal, replacement, relocation, removal, use and operation of Grantor’s equipment and facilities, whether now existing or hereafter to be installed, in, at, over, under, along or across Grantor’s Property (collectively, “Grantor’s Operations”).

C. Grantee desires to install a Twelve-inch (12”) sanitary sewer pipe] along a center line across Grantor’s Property in the location legally described and attached hereto as Exhibit B (for the purposes of this Easement, the “Easement Premises” shall be a strip of land 20 feet (20’) wide and laying ten (10’) feet along either side of the sanitary sewer’s center line, along with a forty feet (40’) temporary construction easement shown on the diagram attached hereto as Exhibit B).

NOW, THEREFORE, in consideration of Ten and No/100ths Dollars, the payments, covenants, terms, and conditions to be made, performed, kept and observed by Grantee hereunder and other good and lawful consideration, Grantor and Grantee hereby agree as follows:

1. Grant of Easement. Subject to the terms and provisions of this Easement, Grantor hereby grants and conveys, without warranty of title, a perpetual, non-exclusive easement for the right and privilege to use the Easement Premises for the following purposes and for no other purpose whatsoever: construction, maintenance and use of a 12” PVC sanitary sewer pipe in substantial conformity with the engineering plan sheets 11, 13 & 13A of 21, prepared by Engineering Enterprises Inc. Consulting Engineers, dated 10-01-2018 and known as Scientel Solutions Eola Road Site Aurora, Illinois attached hereto as Exhibit C and made a part hereof (hereinafter referred to as the “Facilities”).

2. Grantee’s Use. The following general conditions shall apply to Grantee’s use of the Easement Premises:

- (a) Grantee shall procure and maintain at its own expense, prior to entry upon Grantor's Property hereunder, all licenses, consents, permits, authorizations and other approvals required from any federal, state or local governmental authority in connection with the construction, placement, use and operation of the Easement Premises and the Facilities, and Grantee shall strictly observe all laws, rules, statutes and regulations of any governmental authorities having jurisdiction over the Easement Premises or Grantee's operations thereon. Grantor may from time to time request reasonable evidence that all such approvals have been obtained by Grantee and are in full force and effect. In no event shall Grantee seek any governmental approvals that may affect in any way Grantor's Operations, including without limitation any zoning approvals, without in each instance obtaining Grantor's prior written consent, which consent may be granted or withheld in Grantor's sole discretion.
  - (b) In the event any aspect of Grantee's construction, placement, maintenance, repair, use or operation of the Easement Premises and the Facilities at any time violates or is forbidden by any law, statute, rule, regulation, order or requirement of any governmental authority, Grantee shall immediately discontinue such operations and at its own expense take all required corrective action, including without limitation removal of all or any portion of the Facilities from Grantor's Property if required, within the lesser of (i) thirty (30) days from Grantee's notice of such violation or (ii) the period of time required by law for the correction of such violation.
  - (c) Grantee's use of the Easement Premises shall be conducted in a manner that does not conflict or interfere with Grantor's Operations.
  - (d) This Easement and the rights granted hereunder are subject and subordinate in all respects to all matters and conditions affecting the Easement Premises (whether recorded or unrecorded).
  - (e) Grantee's obligations and liabilities to Grantor under this Easement with respect to the Easement Premises and the Facilities and all other matters shall not be limited or in any manner impaired by any agreements entered into by and between Grantee and any third parties, including without limitation any agreements related to the construction or installation of the Facilities, and Grantee shall be and remain liable to Grantor for the installation and operation of the Facilities in accordance with the terms and conditions of this Easement, notwithstanding Grantee's failure or refusal to accept delivery of or title to such facilities from any such third parties.
  - (f) Without limiting the generality of the foregoing, this Easement and the rights granted hereunder are subject and subordinate in all respects to the existing and future rights of Grantor and its lessees, licensees and grantees, existing roads and highways, the rights of all existing utilities, all existing railroad rights-of-way, water courses and drainage rights that may be present in Grantor's Property. If required, Grantee shall secure the engineering consent of such prior grantees as a prerequisite to exercising its rights hereunder and provide Grantor with a copy of the same.
3. Term. The term of this Easement shall be perpetual, unless sooner terminated in accordance with the provisions of this Easement, and shall commence as of the date first hereinabove written.

4. Fees. In partial consideration of this Easement, Grantee shall pay Grantor a certain sum of money as set forth in a separate agreement between Grantor and Grantee, which amount shall be due and payable to Grantor, prior to Grantor's execution of this Easement.

5. Rights Reserved to Grantor.

(a) Grantor's rights in and to the Easement Premises, Grantor's Property and Grantor's Operations are and shall remain superior to Grantee's rights granted hereunder. Grantor shall not be liable to Grantee for damage to the Facilities due to Grantor's Operations and/or the installation, operation, maintenance or removal of any present or future facilities of Grantor.

(b) Grantor reserves the right to grant additional leases, licenses, easements and rights hereafter to third parties through, under, over and across all or any portion of Grantor's Property, including the Easement Premises, so long as there is no material adverse impact on Grantee's rights in and use of the Easement Premises pursuant to the terms of this Easement. In the event of a violation of this Paragraph 5(b), Grantee's sole and exclusive remedy against Grantor shall be seeking an injunction preventing such third party from creating such material adverse impact on Grantee's rights as aforesaid.

6. Relocation and Restoration of Easement Premises. The following terms and conditions shall govern the rights and obligations of the parties with respect to relocation and restoration of the Easement Premises:

(a) In the event any alteration, expansion, upgrade, relocation or other change in Grantor's Operations interferes or conflicts with Grantee's use of the Easement Premises hereunder, Grantor shall notify Grantee in writing of such proposed change and the conflict posed by this Easement or the presence of the Facilities on the Easement Premises. Such notice shall contain Grantor's estimate of the additional costs Grantor will incur if the proposed change in Grantor's Operations must be altered to avoid or minimize any conflict or interference with Grantee's use of the Easement Premises. Within ten (10) days after receipt of such notice, Grantee shall notify Grantor in writing of its election to (i) make such changes in the Facilities, at Grantee's cost, as in the judgment of Grantor may be required to avoid or minimize any conflict or interference with the proposed change in Grantor's Operations, including without limitation the relocation of the Easement Premises and the Facilities to another location owned by and designated by Grantor, or (ii) reimburse Grantor for all additional costs incurred by Grantor in altering the proposed change in Grantor's Operations to avoid or minimize such conflict or interference. In the event Grantee fails to notify Grantor in writing of such election within such ten (10) day period, Grantee shall be conclusively deemed to have elected to reimburse Grantor for its additional costs as provided in clause (ii) hereinabove. In the event Grantee elects to make all changes to the Easement Premises and/or the Facilities, including relocation to another location designated by Grantor, required to avoid conflict with the proposed change in Grantor's Operations, Grantee, at its sole cost and in accordance with all applicable terms and conditions of this Easement, shall promptly take all steps necessary to complete such changes and relocation within a reasonable time but in no event later than sixty (60) days after the date of such election. In the event Grantee elects to reimburse Grantor for the additional costs to be incurred by Grantor, Grantee shall make such payment within thirty (30) days after Grantor's demand therefor.

- (b) Grantee agrees that, within thirty (30) days after the termination of this Easement for any reason, Grantee shall, at its sole cost and expense and only if directed to do so by Grantor in Grantor's sole discretion, remove all of the Facilities from Grantor's Property and restore and repair Grantor's Property to the condition existing prior to the installation of the Facilities. In the event Grantee fails to so remove the Facilities and restore and repair Grantor's Property, Grantor may elect to do so at Grantee's sole cost and expense, and, in such event, Grantor may dispose of the Facilities without any duty to account to Grantee therefor. Grantee shall pay all costs and expenses incurred by Grantor in removing the Facilities, including any storage costs, and any costs incurred by Grantor in restoring and repairing Grantor's Property. Any facilities and equipment that Grantee fails to remove from Grantor's Property within thirty (30) days after the termination of this Easement shall be conclusively deemed to have been abandoned by Grantee and shall become the sole property of Grantor, without liability or obligation to account to Grantee therefor.

7. Condition of Grantor's Property. Grantee has examined the Easement Premises and knows its condition. Grantee hereby accepts the condition of the Easement Premises in its **AS-IS, WHERE-IS CONDITION, WITH ALL FAULTS**. No representations as to the condition, repair or compliance thereof with any laws, and no agreements to make any alterations, repairs or improvements in or about the Easement Premises have been made by or on behalf of Grantor. By accepting possession of the Easement Premises, Grantee shall be conclusively presumed to have accepted the condition thereof and to have unconditionally waived any and all claims whatsoever related to the condition of the Easement Premises.

8. Conditions Governing Construction, Repair, Maintenance and Other Work.

- (a) All work performed by Grantee pursuant to this Easement, including without limitation all work related to the installation, alteration, maintenance (excluding only routine maintenance), repair, relocation, replacement or removal of the Easement and the Facilities, shall be performed in accordance with plans and specifications approved in writing by Grantor prior to the commencement of such work. Grantor shall review and approve any amendments, additions or other changes to such approved plans and specifications, prior to the performance of any work identified therein. Grantor shall have the right (but not the obligation) to supervise Grantee's performance of any such work at the Easement Premises (or any component thereof) and, in the event that Grantor so elects, Grantee shall reimburse Grantor for any and all costs of such supervision, together with a charge for Grantor's overhead, as determined by Grantor.
- (b) Prior to the performance of any work, Grantee shall (i) obtain all applicable permits, approvals and authorizations required from any federal, state or local governmental authorities and furnish Grantor with satisfactory evidence that all such approvals have been obtained and (ii) furnish Grantor with certificates of insurance for each contractor and subcontractor evidencing such contractor's or subcontractor's compliance with the requirements of Section 11 hereof.
- (c) Except for emergency repairs affecting the health and safety of the public, Grantee shall provide Grantor with not less than thirty (30) days advance notice of any work (including routine maintenance) so that Grantor may take such protective actions as Grantor deems necessary to ensure the safety and reliability of Grantor's facilities in the area of Grantee's proposed work. Grantee shall postpone the commencement of its work until such time as Grantor has completed any and all such protective work. Any cost and expense of such

protective work shall be borne by Grantee and paid by Grantee within thirty (30) days after receipt of a bill therefor.

- (d) Grantee hereby agrees that, in the event that Grantee (or any employee, agent, representative, contractor, licensee, invitee or guest of Grantee) performs any grading, leveling, digging or other work of any kind on the Grantor's Property (to the extent expressly permitted under the terms of this Easement) and damages any improvements, fixtures, facilities, equipment, or other property located (now or in the future) at Grantor's Property, then Grantee will either (at Grantor's sole election), (x) promptly cause any such improvements, fixtures, facilities, equipment or other property to be repaired and restored to the same or better condition as the same were in immediately prior to such damage or destruction, or (y) promptly pay Grantor the amount which Grantor estimates (as set forth in a written notice from Grantor to Grantee) will cover the cost and expense of repairing and restoring such damage or destruction. Prior to performing any such grading, leveling, digging or excavation work on the Easement Premises (which work shall be subject to Grantor's prior written approval), Grantee will notify J.U.L.I.E. at telephone number (800) 892-0123, C.U.A.N. at (312) 744-7000 if the Easement Premises are located in the City of Chicago, or in the event the Easement Premises are located outside J.U.L.I.E.'s or C.U.A.N.'s jurisdiction, any other services required by the utilities in the jurisdiction where the Easement Premises are located, at least seventy-two (72) hours prior to the commencement of such work in order to locate all existing utility lines that may be present on the Easement Premises.
- (e) Except for emergency repairs affecting the health and safety of the public, which emergency repairs should be called in within the first 8-hours of entering Grantor's Property and confirmed by Grantor, Grantee shall (in addition to the notice required under subparagraph (c) above) notify Grantor's Regional Right of Way Agent in [Aurora\_\_\_\_\_], Illinois, telephone number [866]340--2841], at least forty-eight (48) hours in advance of entering Grantor's Property for the performance of any work (including routine maintenance). The timing and scheduling of such work shall be subject to Grantor's prior approval. In the event Grantee is required to perform any emergency repair work affecting the health and safety of the public, Grantee shall notify Grantor in writing of such repair work within forty-eight (48) hours after the performance of such repairs.
- (f) Grantee hereby acknowledges that the Easement Premises may be used from time to time to accommodate equipment and facilities of other persons and/or entities (including, without limitation, pipeline and utility companies) which are (or will be) located on, above or below the surface of the Easement Premises. Grantee agrees that it will contact any such persons and/or entities holding rights to use and/or occupy the Easement Premises, and provide the proper protection required by such persons or entities, in connection with Grantee's use and occupancy of the Easement Premises. Grantee further agrees to furnish Grantor copies of the correspondence between the any such persons or entities and Grantee. Grantee agrees that this requirement shall apply to any installations currently located on, above or below the Easement Premises and any and all future installations on, above or below the Easement Premises.
- (g) Grantor may withhold its approval to the performance of any work hereunder whenever any of the following conditions exist: (i) Grantee is in default under this Easement, (ii) the performance of such work and the use and occupancy of Grantor's Property contemplated

by such work in Grantor's judgment will interfere with Grantor's Operations or any other then existing uses of Grantor's Property, or (iii) Grantor and Grantee have failed to enter into such supplemental agreements as Grantor deems necessary or advisable regarding the performance of such work. Grantor retains the right to suspend or stop all such work if in Grantor's sole judgment the ongoing performance of such work endangers Grantor's facilities or threatens to interfere with Grantor's Operations, and Grantor shall incur no liability for any additional cost or expense incurred by Grantee or any third parties in connection with such work stoppage.

- (h) All work shall be performed in a good and workmanlike manner and in accordance with all applicable laws, statutes, building codes and regulations of applicable governmental authorities. Without limiting the generality of the foregoing, Grantee shall cause all work and the placement of the Easement Premises and the Facilities to meet the applicable requirements of 83 Ill. Admin. Code Part 305, as amended from time to time, and shall cause all workers performing any work on behalf of Grantee, its contractors and subcontractors, to be equipped for and conform to OSHA safety regulations. Upon completion of the work, Grantee shall (i) provide waivers of liens from each contractor and such other evidence of lien-free completion of the work as Landlord may require and (ii) restore all adjacent and other affected areas of Grantor's Property to their original condition preceding the commencement of such work.
- (i) Grantee shall promptly notify Grantor of any damage caused to Grantor's facilities arising out of or related to the performance of such work, including without limitation damage to crops, fences, pasture land or livestock, landscaping and the like and Grantee will reimburse Grantor on demand for the cost of any such repairs and other expenses incurred by Grantor as a result of such damage. The formula described in Section 15(b) shall be used to determine the amount due Grantor as reimbursement for the cost of such repairs. No vehicles, equipment or anything else (including, but not limited to, any equipment attached to vehicles or equipment such as antennas) having a height which exceeds the maximum allowable height under applicable OSHA height standards in effect from time to time, shall be driven, moved or transported on the Easement Premises without Grantor's prior written consent.
- (j) There shall be no impairment of any natural or installed drainage facilities occasioned by any work related to the Easement Premises and/or the Facilities and Grantee at its cost shall repair and replace all drainage tiles damaged or destroyed during the performance of such work.
- (k) The following additional specific requirements shall apply to the performance of the work related to the Easement Premises and/or the Facilities:
  - (i) Grantee agrees that the Facilities will be installed in strict conformity with the plans attached hereto as **Exhibit C-Engineering Plan**.
  - (ii) Should any proposed changes to the Easement Premises and/or the Facilities be required, either before or after installation, Grantee, or its successors, shall first submit such changes to Grantor, in the form of revised plans for Grantor's review and approval.

- (iii) Where the Facilities cross Grantor's fiber optic cable (TBON), Grantor may require that split plastic duct shall be installed and secured around Grantor's underground fiber optic cables in order to protect the fiber optic cable from any damage during any backfilling operation, all of which shall be performed at Grantee's sole cost and expense.
- (iv) Grantee agrees, upon completion of the installation of the Facilities, Grantee will replace all backfilling material in a neat, clean and workmanlike manner, with the topsoil on the surface of Grantor's Property, together with the removal of all excess soils, including any rocks, debris or unsuitable fill from Grantor's Property that has been displaced by the placement of the Facilities. At Grantor's sole election, Grantor may permit Grantee to evenly spread any portion of the remaining topsoil over the Easement Premises so long as Grantee shall not cause or permit the existing ground grade on the Easement Premises to be increased or decreased.
- (v) Grantee agrees that all of Grantor's Property as affected by the construction of the Facilities shall be leveled, dressed and the area re-seeded using grass over and along Grantee's entire construction project site, except for those areas that are either tenant occupied for agricultural purposes and/or those areas that involve in wetland construction, where governmental wetland restoration requirements shall take precedence. Grantee shall manage the re-seeding process until a firm grass growth has been established on Grantor's Property. Grantee agrees to leave Grantor's Property in a neat, clean and orderly condition and to the satisfaction of Grantor, including, but not limited to, the re-seeding of Grantor's Property as required.
- (vi) Grantee covenants and agrees that, in the event that Grantee installs (or is required (by Grantor or otherwise) to install) any fencing and/or gates in connection with Grantee's work at the Easement Premises (or its use or occupancy of the Easement Premises), Grantee will install, maintain and operate such fences and/or gates in strict compliance with any and all fencing and locking rules, regulations and guidelines which Grantor may deliver to Grantee from time to time. [
- (vii) Grantee acknowledges and confirms that, in connection with Grantor's review and/or approval of the plans and specifications for Grantee's work at the Easement Premises (as provided in Subsection 8(a) above), Grantor may require that barricades ("Barricades") be installed on the Easement Premises in order to protect Grantor's Operations and/or other equipment, improvements and facilities of Grantor and other users and occupants of the Easement Premises. Any such Barricades shall be installed either (at Grantor's sole option): (i) by Grantee, at Grantee's sole cost and expense, in a manner satisfactory to Grantor, or (ii) by Grantor, in which event Grantee shall pay to Grantor, prior to such installation, Grantor's reasonable estimate of the cost of such installation of the Barricades. [OPTIONAL: Grantee shall install, maintain and operate such Barricades in strict compliance with any and all rules, regulations and guidelines regarding barricades which Grantor may deliver to Grantee from time to time prior to or during the Term.

9. Covenants of Grantee. Grantee hereby covenants and agrees as follows (which covenants shall survive the expiration or termination of this Easement and Grantee's rights and privileges under this Easement):

- (a) Grantee shall obtain and maintain all rights, licenses, consents and approvals required from any governmental authorities or third parties with respect to the installation, use or operation of the Easement Premises and/or the Facilities on Grantor's Property and, at Grantor's request, Grantee shall provide Grantor with evidence thereof. Grantee shall cause the Easement Premises and the Facilities to be maintained at all times in good repair and in accordance with all requirements of applicable law, and Grantee shall not permit any nuisances or other unsafe or hazardous conditions to exist in, on or under Grantor's Property in connection with the Easement Premises and/or the Facilities or Grantee's use or occupancy of Grantor's Property. In the event Grantee fails to fully and faithfully perform all such repair and maintenance obligations, Grantor shall have right (but not the obligation) after thirty (30) days' written notice to Grantee, to cause such repairs and maintenance to be performed and charge the cost thereof to Grantor. In the event Grantor elects to perform such repair and maintenance, the amount due Grantor from Grantee as reimbursement shall be determined using the formula described in Section 15(b) hereof.
- (b) Grantee shall install the Facilities and use and occupy the Easement Premises in a manner that avoids any interference with Grantor's Operations. Within fifteen (15) days after Grantor's demand therefor, Grantee shall reimburse Grantor for all costs incurred by Grantor as a result of injury or damage to persons, property or business, including without limitation the cost of repairing any damage to Grantor's equipment or facilities or costs arising from electrical outages, caused by the use and occupancy of the Easement Premises by Grantee, its representatives, employees, agents, contractors, subcontractors and invitees.
- (c) Grantee hereby covenants and agrees that it will not cause or permit any lien (including, without limitation, any mechanic's lien) or claim for lien to be asserted against the Easement Premises or any interest therein, whether such lien or claim for lien results from or arises out of any act or omission of Grantee or its employees, agents, consultants, representatives, contractors, subcontractors or materialmen, or otherwise. In the event any such lien or claim for lien is filed, Grantee will immediately pay and release the same. In the event such lien or claim of lien is not released and removed within five (5) days after notice from Grantor, Grantor, at its sole option and in addition to any of its other rights and remedies, may take any and all action necessary to release and remove such lien or claim of lien (it being agreed by Grantee that Grantor shall have no duty to investigate the validity thereof), and Grantee shall promptly upon notice thereof reimburse Grantor for all sums, costs and expenses, including court costs and reasonable attorneys' fees and expenses, incurred by Grantor in connection with such lien or claim of lien. Grantee hereby agrees to indemnify, defend and hold harmless Grantor from and against any and all liens or claims for lien arising out of or in any way connected with Grantee's use and occupancy of the Easement Premises.
- (d) In addition to, and not in lieu of, the other payments which Grantee is required to make under this Easement, Grantee shall pay the following amounts to Grantor in respect of real estate taxes and assessments, in each case no later than thirty (30) days after Grantor's written demand therefor:
- (i) All real estate taxes and other assessments which are allocable to any improvements, structures or fixtures constructed, installed, or placed by Grantee at the Easement Premises for all periods during which this Easement is in effect, plus



- (ii) Any increase in the real estate taxes and other assessments payable with respect to the Easement Premises (or any tax parcel of which the Easement Premises is a part) which is allocable to this Easement, Grantee's use or occupancy of the Easement Premises, or any improvements, structures or fixtures constructed, installed or placed by Grantee at the Easement Premises (but without duplication of any amount payable pursuant to clause (a) above), for all periods during which this Easement is in effect.

For purposes of this Easement real estate taxes or assessments "for" or "with respect to" any particular period (or portion thereof) shall mean the real estate taxes or assessments which accrue with respect to such period, irrespective of the fact that such taxes or assessments may be due and payable within a different period.

**[TO BE USED IF GRANTEE IS A MUNICIPALITY OR OTHER TAX EXEMPT ENTITY:**

Grantee hereby covenants and agrees that Grantee shall, no later than the "Tax Exemption Date" (as hereinafter defined), at Grantee's sole cost and expense, execute and deliver all documents, instruments petitions and applications, and take all other actions which may be necessary and/or appropriate, in order to cause the Easement Premises to be exempted from the payment of real estate taxes, to the extent that it is possible, under applicable law. In the event that Grantee is successful in obtaining any such real estate tax exemption for the Easement Premises, then Grantee shall thereafter cause such real estate tax exemption to be continued for each tax year (or portion thereof) during which this Easement is in effect (and Grantee shall execute such documents, instruments, petitions and applications, and take such other actions which may be necessary and/or appropriate, to cause such property tax exemption to be so continued). In the event that Grantee is unsuccessful in obtaining or continuing any such real estate tax exemption with respect to the Easement Premises, then Grantee shall thereafter use commercially reasonable efforts to continue to seek such exemption (or continuance thereof, as applicable) and shall, from time to time if Grantor so requests, take such actions as may be necessary to apply for such exemption (or continuation). For purposes hereof, the term "Tax Exemption Date" shall mean the date that is the earlier of: (i) sixty (60) days after the date of this Easement, or (ii) the deadline for submitting a real estate tax exemption petition or application for the real estate taxes for the year in which this Easement is executed and delivered.]

(e) Grantee shall notify Grantor in writing within thirty (30) days after the date Grantee ceases to use the Easement Premises and/or the Facilities and shall provide Grantor with a properly executed release of this Easement.

10. General Indemnity. To the maximum extent permitted under applicable law, Grantee agrees to protect, indemnify, defend (with counsel acceptable to Grantor) and hold harmless Grantor and Exelon Corporation, and their respective parents, subsidiaries and affiliates, and their respective officers, directors, shareholders, employees, representatives, agents, contractors, licensees, lessees, guests, invitees, successors and assigns (collectively, the "Indemnified Parties") from and against any and all losses, costs, damages, liabilities, expenses (including, without limitation, reasonable attorneys' fees) and/or injuries (including, without limitation, damage to property and/or personal injuries) suffered or incurred by any of the Indemnified Parties (regardless of whether contingent, direct, consequential, liquidated or unliquidated) (collectively, "Losses"), and any and all claims, demands, suits and causes of action brought or raised against any of the Indemnified Parties (collectively, "Claims"), arising out of, resulting from, relating to or connected with: (i) any act or omission of Grantee or its officers, directors, shareholders, employees, representatives, agents, contractors, licensees, lessees, guests, invitees, successors and assigns ("Grantee Parties") at, on or about Grantor's Property, and/or (ii) any breach or violation of this Easement

on the part of Grantee, and notwithstanding anything to the contrary in this Easement, such obligation to indemnify and hold harmless the Indemnified Parties shall survive any termination of this Easement. This indemnification shall include, but not be limited to, claims made under any workman's compensation law or under any plan for employee's disability and death benefits (including without limitation claims and demands that may be asserted by employees, agents, contractors and subcontractors).

11. Waiver. Any entry onto Grantor's Property by Grantee Parties shall be at such parties' sole risk, and Grantor makes (and has heretofore made) no representations or warranties of any kind whatsoever regarding Grantor's Property or the condition of Grantor's Property (including, without limitation, the environmental condition thereof). To the fullest extent permitted under applicable law, each of Grantee Parties hereby waives any and all claims, demands, suits and causes of action against the Indemnified Parties, and fully and forever release the Indemnified Parties, for any loss, cost, damage, liability or expense (including, without limitation attorneys' fees) suffered or incurred by such Grantee Parties in connection with any entry onto Grantor's Property pursuant to this Easement. This Section will survive termination of this Easement.

12. Insurance. Grantee agrees to require its contractors, before commencing any work on the Leased Premises to purchase and maintain, or at the option of Grantee to itself purchase and maintain, at the cost of Grantee or its contractors, a policy or policies of insurance issued by insurance companies authorized to do business in the State of Illinois, having ratings of A-/VII or better in the Best's Key Rating Insurance Guide (latest edition in effect at the latest date stated in the Certificates of Insurance) and in a form satisfactory to Grantor as follows:

#### COVERAGE #1

Workers' Compensation Insurance with statutory limits, as required by the state in which the work is to be performed, –and Employers' Liability Insurance with limits not less than One Million dollars (\$1,000,000.00) each accident/occurrence

#### COVERAGE #2

Commercial General Liability (CGL) Policy or Policies (with coverage consistent with ISO CG 0001 (12 04)) covering all contractors, subcontractors and all their subcontractors with limits not less than Four Million dollars (\$4,000,000.00) per occurrence covering liability for bodily injury and property damage arising from premises, operations, independent contractors, personal injury/advertising injury, blanket contractual liability and products/completed operations for not less than three (3) years from the date the work is accepted. (CGL insurance includes, but is not limited to coverage for claims against Grantor for injuries to employees of Grantee and its contractors or any subcontractors) Grantor shall be added as an Additional Insured providing coverage consistent with ISO Form CG 20 26 11 85 or the combination of ISO Form CG 20 10 10 01 and CG 20 37 10 01.

#### COVERAGE #3

Automobile Liability in an amount of not less than one million dollars (\$1,000,000) per accident for bodily injury and property damage, covering all owned, leased, rented or non-owned vehicles, which shall include automobile contractual liability coverage.

Policies covering contractors may substitute lower limits for any of the policies listed above, provided that Contractors maintains an umbrella or excess liability policy or policies which provide a total minimum limit of four million dollars (\$4,000,000) per occurrence for general liability and one million dollars (\$1,000,000) for automobile liability, and that all other requirements of this insurance clause are satisfied by such umbrella or excess policy or policies.

Grantee will, in any event, purchase and maintain during the term hereof;

#### COVERAGE #4

Commercial General Liability (CGL) Insurance (with coverage consistent with ISO CG 00 01 12 04) with a limit of not less than four million dollars (\$4,000,000) per occurrence covering liability for bodily injury and property damage, arising from premises, operations, independent contractors, personal injury/advertising injury, blanket contractual liability and products/completed operations (CGL insurance includes, but is not limited to coverage for claims against Grantor for injuries to employees of Grantee and its contractors or any subcontractors). Grantor shall be added as an Additional Insured providing coverage consistent with ISO Form CG 20 11 10 01

#### COVERAGE #5

Workers' Compensation Insurance with statutory limits, as required by the state in which the work is to be performed, –and Employers' Liability Insurance with limits not less than One Million dollars (\$1,000,000.00) each accident/occurrence

Grantee may substitute lower limits for any of the policies listed above, provided that Grantee maintains an umbrella or excess liability policy or policies which provide a total minimum limit of \$4,000,000.00 per occurrence for general liability, and that all other requirements of this insurance clause are satisfied by such umbrella or excess policy or policies.

If any work on the Leased Premises involves or includes Contractor handling, transporting, disposing, or performing work or operations with hazardous substances, contaminants, waste, toxic materials, or any potential pollutants, Grantee and/or contractors shall purchase and maintain pollution legal liability applicable to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims; all in connection with any loss arising from the Leased Premises. Coverage shall be maintained in an amount of at least two million dollars (\$2,000,000) per loss and aggregate. Coverage shall apply to sudden and non-sudden pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants. Grantor shall be included as an additional insured and the policy shall be primary with respect to Grantor as the additional insured.

There shall be furnished to Grantor, prior to commencing the work above described a certificate of insurance showing the issuance of insurance policies pursuant to the requirements contained in Coverages #1, #2, and #3 of this paragraph and shall be delivered to Grantor upon written request. Insurance coverage as required herein shall be kept in force until all work has been completed. All policies shall contain a provision that coverages afforded under the policies will not be canceled or material change until

at least thirty (30) days prior written notice (ten (10) days in the case of nonpayment of premium) has been given to Exelon.

Grantee shall provide evidence of the required insurance coverage under Coverage #4 and #5, which shall be delivered to Grantor upon execution of this document. The insurance under Coverage #4 and #5 shall be kept in force through the term hereof through the above-referred policy, or such subsequent or substitute policy or policies as Grantee may, at its discretion, obtain.

Insurance coverage provided by Grantee and its contractors shall not include any of the following; any claims made insurance policies; any self-insured retention or deductible amount greater than two hundred fifty thousand dollars (\$250,000) unless approved in writing by Grantor; any endorsement limiting coverage available to Grantor which is otherwise required by this Article; and any policy or endorsement language that (i) negates coverage to Grantor for Grantor's own negligence, (ii) limits the duty to defend Grantor under the policy, (iii) provides coverage to Grantor only if Grantee or its contractors are negligent, (iv) permits recovery of defense costs from any additional insured, or (v) limits the scope of coverage for liability assumed under a contract.

To the extent permitted by applicable Laws, all above-mentioned insurance policies shall provide the following:

- (1) Be primary and non-contributory to any other insurance carried by Grantor
- (2) Contain cross-liability coverage as provided under standard ISO Forms' separation of insureds clause; and
- (3) Provide for a waiver of all rights of subrogation which Grantee's, or its Contractors' insurance carrier might exercise against Grantor; and
- (4) Any Excess or Umbrella liability coverage will not require contribution before it will apply

Grantor hereby reserves the right to amend, correct and change from time-to-time the limits, coverages and forms of policies as may be required from Grantee and/or its contractors.

#### WAIVER OF SUBROGATION

Grantee and its contractors shall waive all rights of subrogation against Grantor under those policies procured in accordance with this Easement.

#### 13. Environmental Protection.

- (a) Grantee covenants and agrees that Grantee shall conduct its operations on the Easement Premises in compliance with all applicable Environmental Laws (as hereinafter defined) and further covenants that neither Grantee, nor any of Grantee Parties, shall use, bring upon, transport, store, keep or cause or allow the discharge, spill or release (or allow a threatened release) in each case of any Hazardous Substances (as hereinafter defined) in, on, under or from the Easement Premises. Without limiting any other indemnification obligations of Grantee contained herein, Grantee hereby agrees to protect, indemnify, defend (with counsel acceptable to Grantor) and hold harmless the Indemnified Parties from and against any and all Losses and Claims (including, without limitation, (i)

reasonable attorneys' fees, (ii) liability to third parties for toxic torts and/or personal injury claims, (iii) fines, penalties and/or assessments levied, assessed or asserted by any governmental authority or court, and (iv) assessment, remediation and mitigation costs and expenses and natural resource damage claims) arising out of, resulting from or connected with any Hazardous Substances used, brought upon, transported, stored, kept, discharged, spilled or released by any Grantee Parties or any other person or entity (except for any person or entity which is an Indemnified Party) in, on, under or from the Easement Premises. For purposes of this Easement, the term "Hazardous Substances" shall mean all toxic or hazardous substances, materials or waste, petroleum or petroleum products, petroleum additives or constituents or any other waste, contaminant or pollutant regulated under or for which liability may be imposed by any Environmental Law. "Environmental Laws" shall mean all federal, provincial, state and local environmental laws (including common law) regulating or imposing standards of care with respect to the handling, storage, use, emitting, discharge, disposal or other release of Hazardous Substances, including, but not limited to, the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, et seq., the Clean Air Act, 42 U.S.C. §§7401, et seq., the Federal Water Pollution Control Act, 33 U.S.C. §§1251, et seq., the Emergency Planning and Community Right to Know Act, 42 U.S.C. §§ 1101, et seq., the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601, et seq., the Toxic Substances Control Act, 15 U.S.C. §§2601, et seq., the Oil Pollution Control Act, 33 U.S.C. §§2701, et seq., any successor statutes to the foregoing, or any other comparable local, state or federal statute, ordinance or common law pertaining to protection of human health, the environment or natural resources, including without limitation the preservation of wetlands, and all regulations pertaining thereto, as well as applicable judicial or administrative decrees, orders or decisions, authorizations or permits.

- (b) If there are wetlands on the Easement Premises, or if wetlands should develop on the Easement Premises during the term of this Easement, Grantee shall strictly comply with and observe all applicable Environmental Laws. At Grantor's request, Grantee, at its cost, shall furnish Grantor with a survey of the Easement Premises delineating any wetland areas located on the Easement Premises. Under no circumstances shall Grantee change the physical characteristics of any wetland areas located on the Easement Premises or any adjoining land or place any fill material on any portion of the Easement Premises or adjoining land, without in each instance obtaining Grantor's prior written consent (which may be granted or withheld in Grantor's sole discretion), and only then in compliance with applicable Environmental Laws.
- (c) Grantee shall provide Grantor with prompt written notice upon Grantee's obtaining knowledge of any potential or known release or threat of release of any Hazardous Substances affecting the Easement Premises.
- (d) This Section shall survive the expiration or other termination of the Easement.

14. Defaults. The occurrence of any of the following shall constitute an event of default ("Event of Default") under this Easement:

- (a) Grantee shall fail to pay when due any amount payable to Grantee hereunder and such failure continues for a period of ten (10) days after notice thereof from Grantor; or

- (b) Grantee shall breach or violate any of its duties or obligations set forth in Section 9(c) or Section 12 of this Easement; or
- (c) Grantee shall at any time be in default in any other covenants and conditions of this Easement to be kept, observed and performed by Grantee and such default continue for more than thirty (30) days (or such shorter time period as may specifically set forth in this Easement) after notice from Grantor; or
- (d) A receiver, assignee or trustee shall be appointed for Grantee or if the Grantee shall file bankruptcy, or if involuntary bankruptcy proceedings shall be filed against Grantee; or
- (e) Grant shall fail to complete construction of the Facilities on or before \_\_\_ months after the date of this Easement or shall fail to operate or maintain the Facilities for a period of twelve (12) consecutive months.

15. Remedies. Upon the occurrence of an Event of Default, Grantor may exercise any one or more of the following remedies (which remedies shall survive the expiration or termination of this Easement and Grantee's rights and privileges under this Easement):

- (a) Terminate this Easement and all rights and privileges of Grantee under this Easement by written notice to Grantee; or
- (b) Take any and all corrective actions Grantor deems necessary or appropriate to cure such default and charge the cost thereof to Grantee, together with (i) interest thereon at the rate of nine (9%) percent and (ii) an administrative charge in an amount equal to ten percent (10%) of the cost of the corrective action to defray part of the administrative expense incurred by Grantor in administering such cure, such payment to be made by Grantee upon Grantor's presentment of demand therefor; or
- (c) Any other remedy available at law or in equity to Grantor, including without limitation specific performance of Grantee's obligations hereunder. Grantee shall be liable for and shall reimburse Grantor upon demand for all reasonable attorney's fees and costs incurred by Grantor in enforcing Grantee's obligations under this Easement, whether or not Grantor files legal proceedings in connection therewith. No delay or omission of Grantor to exercise any right or power arising from any default shall impair any such right or power or be construed to be a waiver of any such default or any acquiescence therein. No waiver of any breach of any of the covenants of this Easement shall be construed, taken or held to be a waiver of any other breach, or as a waiver, acquiescence in or consent to any further or succeeding breach of the same covenant. The acceptance of payment by Grantor of any of the fees or charges set forth in this Easement shall not constitute a waiver of any breach or violation of the terms or conditions of this Easement.

16. Notices. Whenever notice is required to be given pursuant to this Easement, the same shall be in writing, and either personally delivered, sent by a nationally recognized overnight delivery service, postage prepaid, or sent via United States certified mail, return receipt requested, postage prepaid, and addressed to the parties at their respective addresses as follows:

If to Grantor:

Commonwealth Edison Company  
P.O. Box 767  
Chicago, Illinois 60690-0767  
Attn: Director of Real Estate Services

With a copy to:

Exelon Business Services Company  
Law Department  
P.O. Box 805379  
Chicago, Illinois 60680-5379  
Attn: Assistant General Counsel – Real Estate

If to Grantee:

The City of Aurora  
44 E Downer Place  
Aurora, IL 60505  
Attn: Dept. of Public Works/ Engineering Division

Or at such other addresses as any party, by written notice in the manner specified above to the other party hereto, may designate from time to time. Unless otherwise specified to the contrary in this Easement, all notices shall be deemed to have been given upon receipt (or refusal of receipt) thereof.

17. No Assignment by Grantee. This Easement and the rights and obligations of the parties hereto shall be binding upon and inure to the benefit of the parties and their respective successors, personal representatives and assigns and the owners of Grantor's Property, from time to time; provided, however, that Grantee shall have no right to assign all or any portion of its right, title, interest or obligation in this Easement or under this Easement without the prior written consent of Grantor, which consent may be granted or withheld by Grantor in its sole and exclusive discretion. Any attempt by Grantee to assign all or any portion of its interest hereunder in violation of the foregoing shall be void and of no force and effect. The terms "Grantor" and "Grantee" as used herein are intended to include the parties and their respective legal representatives, successors and assigns (as to Grantee such assigns being limited to its permitted assigns), and the owners of Grantor's Property, from time to time. For purposes of this Easement, any transfer, directly, indirectly or by operation of law, of a "controlling" interest in Grantee shall constitute an assignment of this Easement, and shall be subject to the terms and provisions of this Section 17. For purposes hereof, a "controlling" interest in Grantee shall mean: (a) the ownership, directly or indirectly, of a majority of the outstanding voting stock or interests of Grantee, or (b) the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of Grantee, whether through the ownership of voting securities or other ownership interests, by statute, or by contract.

18. Entire Agreement. This Easement, the exhibits and addenda, if any, contain the entire agreement between Grantor and Grantee regarding the subject matter hereof, and fully supersede all prior written or oral agreements and understandings between the parties pertaining to such subject matter.

19. Transfer by Grantor. Upon any transfer or conveyance of the Easement Premises by Grantor, the transferor shall be released from any liability under this Easement, and the transferee shall be bound by and deemed to have assumed the obligations of Grantor arising after the date of such transfer or conveyance.

20. No Oral Change. This Easement cannot be changed orally or by course of conduct, and no executory agreement, oral agreement or course of conduct shall be effective to waive, change, modify or discharge it in whole or in part unless the same is in writing and is signed by the party against whom enforcement of any waiver, change, modification or discharge is sought.

21. Further Assurances. Each party agrees that it will execute and deliver such other documents and take such other action as may be reasonably requested by the other party to effectuate the purposes and intention of this Easement.

22. Governing Law, Venue. The terms and provisions of this Easement shall be governed by and construed in accordance with the laws of the State of Illinois. With respect to any suit, action or proceeding relating to this Easement (each a "Proceeding"), the parties hereto each irrevocably: (a) agree that any such Proceeding shall be commenced, brought, tried, litigated and consummated in the courts of the State of Illinois located in the County of Cook or (as applicable) the United States District Court for the Northern District of Illinois, (b) submit to the exclusive jurisdiction of the courts of the State of Illinois located in the County of Cook and the United States District Court for the Northern District of Illinois, and (c) waive any objection which they may have at any time to the laying of venue of any Proceeding brought in any such court, waive any claim that any Proceeding brought in any such court has been brought in an inconvenient forum, and further waive the right to object, with respect to such Proceeding, that any such court does not have jurisdiction over such party.

23. Time is of the Essence. Time is of the essence of each and every provision of this Easement.

24. Severability. In the event that any governmental or regulatory body or any court of competent jurisdiction determines that any covenant, term or condition of this Easement as applied to any particular facts or circumstances is wholly or partially invalid, illegal or unenforceable, such invalidity, illegality or unenforceability shall not affect such covenant, term or condition as applied to other facts or circumstances (unless the effect of such determination precludes the application of such covenant, term or condition to other facts or circumstances) or the validity, legality or enforceability of the other covenants, terms and conditions of this Easement. In the event any provision of this Easement is held to be invalid, illegal or unenforceable, the parties shall promptly and in good faith negotiate new provisions in substitution therefor to restore this Easement to its original intent and effect.

25. No Reinstatement. No receipt of money by Grantor from Grantee, after the expiration or termination of this Easement shall renew, reinstate, continue or extend the term of this Easement.

26. Non-Affiliated. By signing this Easement, Grantee affirms and states that it is not an employee of Commonwealth Edison Company nor Exelon Corporation, and their respective parents, subsidiaries and affiliates, nor has any affiliated interest in the Commonwealth Edison Company or Exelon Corporation, and their respective parents, subsidiaries and affiliates.

27. Counterparts. This Easement may be executed by the parties in counterparts. Each such counterpart shall be deemed an original and all such counterparts, taken together, shall constitute one and the same agreement.



28. No Assessment. By signing this Easement Grantee agrees that Grantor or its public utility successor shall not be assessed for any improvements to be constructed pursuant hereto as a local improvement project or otherwise charged for the cost of such improvements.

29. No Third Party Beneficiaries. Grantor and Grantee agree and acknowledge that, except as expressly set forth herein, there are no intended third party beneficiaries of this Easement nor any of the rights and privileges conferred herein.

30. Illinois Commerce Commission Approval. Grantor and Grantee acknowledge that Grantor is a public utility regulated by the Illinois Commerce Commission (“Commission”) and other governmental authorities, and this Easement and the obligations of the parties hereto are subject to all legal requirements applicable to Grantor as a public utility. Although it is not expected that the Commission’s or other governmental authority’s approval will be required for this Easement, the rights and obligations of the parties hereunder are conditioned upon the Commission’s and any other applicable governmental authority’s approval of this Easement, under any circumstances in which such approval is required. It is further agreed and understood that this Easement may be terminated by Grantor immediately at any time in the event that Grantor is required to do so by the Commission or some other governmental authority.

31. Labor Relations. Neither Grantee nor any of Grantee’s authorized agents shall, at any time, directly or indirectly, employ, or permit the employment of, any contractor, mechanic or laborer in the Easement Premises, or permit any materials to be delivered to or used in the Easement Premises, if, in Grantor’s sole judgment, such employment, delivery or use will interfere or cause any conflict with other contractors, mechanics or laborers engaged in the construction, maintenance or operation of Grantor’s Property (or any other property) by Grantor, Grantee or others, or the use and enjoyment of Grantor’s Property by Grantor or other lessees or occupants of Grantor’s Property. In the event of such interference or conflict, upon Grantor’s request, Grantee shall cause all contractors, mechanics or laborers causing such interference or conflict to leave Grantor’s Property immediately.

32. Independent System Operator. In the event responsibility for management or operation of all or any portion of Grantor’s electrical transmission facilities located in or on the Grantor’s Property is transferred or assigned by Grantor to an independent system operator (“ISO”) or another third party, then Grantee agrees to recognize the right of such ISO or third party to exercise all or any part of Grantor’s rights under this instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Easement to be executed by their proper officers thereunto duly authorized as of the day and year first hereinabove written.

**COMMONWEALTH EDISON COMPANY**

By: \_\_\_\_\_  
Kendall C. Hodge  
Director of Real Estate and Facilities

**CITY OF AURORA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: Mayor

**SCHEDULE OF EXHIBITS**

- A Legal description of Grantor's Property
- B Easement Premises
- C Engineering Plans
- D Additional Requirements

STATE OF ILLINOIS) ) SS  
COUNTY OF DUPAGE)

I, the undersigned, a Notary Public, in and for the County and State aforesaid, DO HEREBY CERTIFY, that Kendall C. Hodge, personally known to me to be the Director of Real Estate and Facilities of COMMONWEALTH EDISON COMPANY, is the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that, as such Director, he signed and delivered such instrument, as his/her free and voluntary act and deed, and as the free and voluntary act and deed of such corporation, for the uses and purposes therein set forth.

Given under my hand and official seal, this \_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Notary Public

Commission expires: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
 ) SS  
COUNTY OF \_\_\_\_\_ )

I, the undersigned, a Notary Public in and for the County and State aforesaid, DO HEREBY CERTIFY that \_\_\_\_\_, personally known to me to be the \_\_\_\_\_ of \_\_\_\_\_, a \_\_\_\_\_, and personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that as such \_\_\_\_\_, (s)he signed and delivered such instrument pursuant to authority given by the \_\_\_\_\_ of such \_\_\_\_\_, as his/her free and voluntary act and deed, and as the free and voluntary act and deed of such \_\_\_\_\_, for the uses and purposes therein set forth.

Given under my hand and official seal, this \_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Notary Public

Commission expires: \_\_\_\_\_

**EXHIBIT A TO EASEMENT AGREEMENT**

**LEGAL DESCRIPTION OF GRANTOR'S PROPERTY**

A PARCEL OF LAND ONE HUNDRED AND TWELVE (112) FEET IN WIDTH LYING BETWEEN THE SOUTHERLY RIGHT OF WAY LINE OF THE CHICAGO, AURORA AND ELGIN RAILROAD AND A LINE ONE HUNDREDE AND TWELVE (112) FEET SOUTHERLY OF , PARALLEL WITH AND MEASURED AT RIGHT ANGLES TO THE SOUTHERLY RIGH TOF WAY LINE OF SAID CHICAAO, AURORA AND ELGIN RAILROAD ACROSS THE FOLLOWING PROPERTY: TRACT 5 IN THE ASSESSMENT PLAT OF THE CULVER FARM AND THE HARRIS FARM, BEING THE SCHELLING ESTATE, A PART OF SECTIOS FIVE (5), SIX (6), SEVER (7) AND EIGHT (8), TOWNSHIP THIRTY-EIGHT (38) NORTH, RANGE NINE 99), EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ASSESSMENT PLAT HAVING BEEN RECORDED ON MAY 21, 1946 AS DOCUMENT #498416, DEPAGE COUNTY.

ALSO

A PARCEL OF LAND NINETY-FIVE (95) FEET IN WIDTH LYING BETWEEN THE SOUTHERLY RIGHT OF WAY LINE OF THE CHICAGO, AURORA AND ELGIN RAILROAD AND A LINE NINETY-FIVE (95) FEET SOUTHERLY OF , PARALLEL WITH AND MEASURED AT RIGHT ANGLES TO THE SOUTHERLY RIGH TOF WAY LINE OF SAID CHICAGAO, AURORA AND ELGIN RAILROAD ACROSS THE FOLLOWING PROPERTY: TRACT SIX (6) IN THE ASSESSMENT PLAT OF THE CULVER FARM AND THE HARRIS FARM, BEING THE SCHELLING ESTATE, A PART OF SECTIOS FIVE(5), SIX (6), SEVER (7) AND EIGHT (8), TOWNSHIP THIRTY-EIGHT (38) NORTH, RANGE NINE (9), EAST OF THE THIRD PRINCIPAL MERIDIAN, SAID ASSESSMENT PLAT HAVING BEEN RECORDED ON MAY 21, 1946 AS DOCUMENT #498416, DEPAGE COUNTY.

PIN NO.

*07-08-103-006, 07-05-304-010 & 07-08-104-002*

**EXHIBIT B TO EASEMENT AGREEMENT**

**EASEMENT PREMISES**

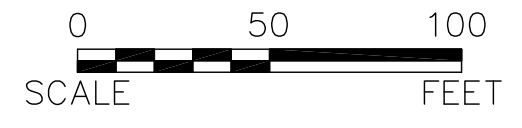
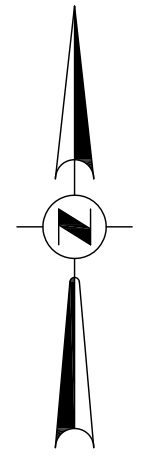
See attached.

**DIEHL ROAD**

A = 8.29'  
R = 450.00'

N42°37'04"E  
23.49'

A = 58.02'  
R = 450.00'



DIEHL INDUSTRIAL PARK  
ASSESSMENT PLAT NO. 2  
DOC. R64-30327  
REC AUG. 19, 1964  
LOT 5

FOUND IRON PIPE ONLINE  
AND 0.55' SOUTH

DIEHL INDUSTRIAL PARK  
ASSESSMENT PLAT NO. 2  
DOC. R64-30327  
REC AUG. 19, 1964  
LOT 6

FOUND IRON PIPE  
ONLINE & 0.05' EAST

DIEHL INDUSTRIAL PARK  
DOC. R63-9137  
REC MARCH 27, 1963  
LOT 1

EAST LINE OF LOT 1 IN  
DIEHL INDUSTRIAL PARK

FOUND IRON PIPE  
AT CORNER

POB PARCEL 1  
POC PARCEL 2  
POC PARCEL 3  
POC PARCEL 4

**ILLINOIS PRAIRIE PATH**  
FORMERLY THE CHICAGO, AURORA & ELGIN RAILROAD

N77°50'55"E  
20.80'  
POB PARCEL 4  
POB PARCEL 2

N77°50'55"E  
20.80'

SOUTH LINE OF THE FORMER  
CHICAGO, AURORA & ELGIN RAILROAD

N03°44'57"E  
1077.45'  
20' T.C.E. HEREBY GRANTED (PARCEL ONE)

40 FOOT T.C.E. HEREBY GRANTED (PARCEL FIVE)

S77°50'55"W  
41.59'

20.80'  
S77°50'55"W

103.99'  
S03°45'55"W

N77°50'55"E  
20.80'

N77°50'55"E  
20.80'

N03°45'55"E  
98.79'

20' T.C.E. HEREBY GRANTED (PARCEL TWO)

20' S.E. HEREBY GRANTED (PARCEL TWO)

20' T.C.E. HEREBY GRANTED (PARCEL THREE)

98.79'  
S03°45'55"W

COMMONWEALTH EDISON COMPANY  
ELECTRIC JUNCTION ASSESSMENT PLAT  
DOC. R2000-139629  
REC SEPT. 08, 2000  
LOT 1

LEGAL DESCRIPTION - 20' SEWER EASEMENT (PARCEL ONE)

THAT PART OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF LOT 1 IN DIEHL INDUSTRIAL PARK, BEING A SUBDIVISION IN SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 27, 1963 AS DOCUMENT R63-9137; THENCE NORTH 03 DEGREES 44 MINUTES 57 SECONDS EAST, ALONG THE EAST LINE OF DIEHL INDUSTRIAL PARK ASSESSMENT PLAT NO. 2, BEING A SUBDIVISION IN SECTIONS 5 & 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AUGUST 19, 1964 AS DOCUMENT R64-30327, 1077.45 FEET TO THE SOUTH LINE OF DIEHL ROAD; THENCE NORTH 42 DEGREES 37 MINUTES 04 SECONDS EAST, ALONG SAID SOUTH LINE, 23.49 FEET TO A POINT OF CURVATURE; THENCE NORTHEASTERLY 8.29 FEET ALONG SAID SOUTH LINE, BEING A CURVE TO THE RIGHT WITH A RADIUS OF 450.00 FEET; THENCE SOUTH 03 DEGREES 44 MINUTES 57 SECONDS WEST, 1096.44 FEET TO THE NORTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD; THENCE SOUTH 77 DEGREES 50 MINUTES 55 SECONDS WEST, ALONG SAID NORTH LINE, 20.80 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION - 20' SEWER EASEMENT (PARCEL TWO)

THAT PART OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF LOT 1 IN DIEHL INDUSTRIAL PARK, BEING A SUBDIVISION IN SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 27, 1963 AS DOCUMENT R63-9137; THENCE SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 103.99 FEET TO THE SOUTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD RIGHT OF WAY FOR THE POINT OF BEGINNING; THENCE NORTH 77 DEGREES 50 MINUTES 55 SECONDS EAST, ALONG SAID SOUTH LINE, 20.80 FEET; THENCE SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 98.79 FEET TO THE NORTH LINE OF LOT ONE IN COMMONWEALTH EDISON COMPANY ELECTRIC JUNCTION ASSESSMENT PLAT, BEING AN ASSESSMENT PLAT IN SECTIONS 5 & 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED SEPT. 8, 2000 AS DOCUMENT R2000-139629; THENCE SOUTH 77 DEGREES 50 MINUTES 55 SECONDS WEST, ALONG SAID NORTH LINE, 20.80 FEET; THENCE NORTH 03 DEGREES 45 MINUTES 55 SECONDS EAST, 98.79 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION - 20' TEMPORARY CONSTRUCTION EASEMENT (PARCEL THREE)

THAT PART OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF LOT 1 IN DIEHL INDUSTRIAL PARK, BEING A SUBDIVISION IN SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 27, 1963 AS DOCUMENT R63-9137; THENCE SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 103.99 FEET TO THE SOUTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD RIGHT OF WAY FOR THE POINT OF BEGINNING; THENCE NORTH 77 DEGREES 50 MINUTES 55 SECONDS EAST, ALONG SAID SOUTH LINE, 20.80 FEET; THENCE SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 98.79 FEET TO THE NORTH LINE OF LOT ONE IN COMMONWEALTH EDISON COMPANY ELECTRIC JUNCTION ASSESSMENT PLAT, BEING AN ASSESSMENT PLAT IN SECTIONS 5 & 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED SEPT. 8, 2000 AS DOCUMENT R2000-139629; THENCE SOUTH 77 DEGREES 50 MINUTES 55 SECONDS WEST, ALONG SAID NORTH LINE, 20.80 FEET; THENCE NORTH 03 DEGREES 45 MINUTES 55 SECONDS EAST, 98.79 FEET TO THE SOUTH LINE OF SAID RAILROAD TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION - 20' TEMPORARY CONSTRUCTION EASEMENT (PARCEL FOUR)

THAT PART OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF LOT 1 IN DIEHL INDUSTRIAL PARK, BEING A SUBDIVISION IN SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 27, 1963 AS DOCUMENT R63-9137; THENCE SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 103.99 FEET TO THE SOUTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD RIGHT OF WAY FOR THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 03 DEGREES 45 MINUTES 55 SECONDS WEST, 98.79 FEET TO THE NORTH LINE OF LOT ONE IN COMMONWEALTH EDISON COMPANY ELECTRIC JUNCTION ASSESSMENT PLAT BEING AN ASSESSMENT PLAT IN SECTIONS 5 & 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED SEPT. 8, 2000 AS DOCUMENT R2000-139629; THENCE SOUTH 77 DEGREES 50 MINUTES 55 SECONDS WEST, ALONG SAID NORTH LINE, 20.80 FEET; THENCE NORTH 03 DEGREES 45 MINUTES 55 SECONDS EAST, 98.79 FEET TO THE SOUTH LINE OF SAID RAILROAD RIGHT OF WAY; THENCE NORTH 77 DEGREES 50 MINUTES 55 SECONDS EAST, ALONG SAID SOUTH LINE, 20.80 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION - 40' TEMPORARY CONSTRUCTION EASEMENT (PARCEL FIVE)

THAT PART OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF LOT 1 IN DIEHL INDUSTRIAL PARK, BEING A SUBDIVISION IN SECTION 8, TOWNSHIP 38 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 27, 1963 AS DOCUMENT R63-9137; THENCE NORTH 77 DEGREES 50 MINUTES 55 SECONDS EAST, ALONG THE NORTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD RIGHT OF WAY, 20.80 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 03 DEGREES 44 MINUTES 57 SECONDS EAST, 1096.44 FEET TO THE SOUTH LINE OF DIEHL ROAD; THENCE NORTHEASTERLY 58.02 FEET ALONG SAID SOUTH LINE, BEING A CURVE TO THE RIGHT WITH A RADIUS OF 450.00 FEET; THENCE SOUTH 03 DEGREES 44 MINUTES 57 SECONDS WEST, 1127.02 FEET TO THE NORTH LINE OF THE FORMER CHICAGO, AURORA AND ELGIN RAILROAD; THENCE SOUTH 77 DEGREES 50 MINUTES 55 SECONDS WEST, ALONG SAID NORTH LINE, 41.59 FEET TO THE POINT OF BEGINNING.



**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eei.com

**EXHIBIT C TO EASEMENT AGREEMENT**

**ENGINEERING PLANS**

**(See attached)**

ARCHITECT:  
**CORDOGAN, CLARK & ASSOCIATES**  
 960 RIDGEWAY AVENUE  
 AURORA, ILLINOIS 60506

# IMPROVEMENT PLANS FOR **SCIENTEL SOLUTIONS EOLA ROAD SITE**

CITY OF AURORA  
 KANE COUNTY, ILLINOIS

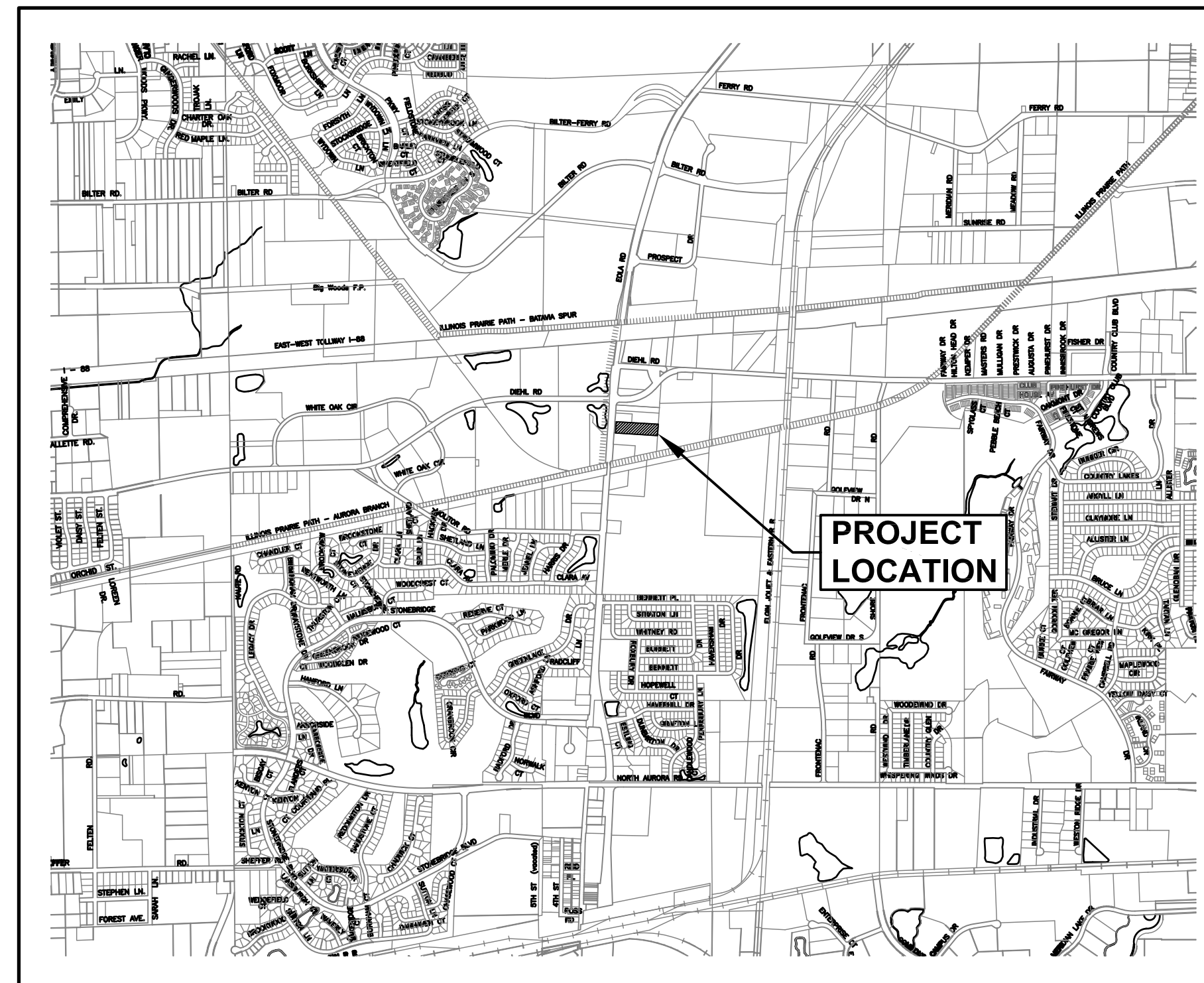
PERMIT ISSUE: MARCH 2018

### LEGEND

EXISTING	DESCRIPTION	PROPOSED
	SANITARY SEWER	
	STORM SEWER	
	END SECTION	
	WATER MAIN & SIZE	
	WATER SERVICE & BOX	
	SEWER SERVICE	
	CONTOUR	
	GAS MAIN	
	TELEPHONE CABLE	
	SILT FENCE	
	MANHOLE	
	CATCH BASIN	
	INLET	
	HYDRANT	
	VALVE VAULT	
	TREE	
	ELEVATION	
	TRENCH BACKFILL	
	STREET LIGHT	
	SIGNS	
	FOUND IRON PIPE	
	GUY WIRE	
	FLAG POLE	
	UTILITY POLE	
	UTILITY PEDESTAL	
	HANDHOLE	
	ITEM DESIGNATED FOR REMOVAL	
	TREE PROTECTION REQUIRED	
	BITUMINOUS PAVEMENT	
	CONCRETE	
	GRAVEL	
	SPOT GRADES	

### INDEX OF SHEETS

- COVER SHEET, NOTES AND LEGEND
- GENERAL NOTES
- GENERAL NOTES AND SUMMARY OF QUANTITIES
- EROSION AND SEDIMENTATION CONTROL PLAN
- EROSION AND SEDIMENTATION CONTROL PLAN
- STORM WATER POLLUTION PREVENTION PLAN
- STORM WATER POLLUTION PREVENTION DETAILS
- EXISTING SITE AND DEMOLITION PLAN
- GEOMETRIC AND PAVING PLAN
- ROAD A AND B PROFILE
- GRADING AND DRAINAGE PLAN
- NORTH UTILITY PLAN
- SOUTH UTILITY PLAN
- SANITARY PROFILE
- SANITARY PROFILE
- WATER MAIN PROFILE
- FOX METRO GENERAL NOTES
- FOX METRO AND SITE DETAILS
- SITE DETAILS
- SITE DETAILS
- SITE DETAILS
- SITE DETAILS
- HIGHWAY STANDARDS
- HIGHWAY STANDARDS
- HIGHWAY STANDARDS
- HIGHWAY STANDARDS
- HIGHWAY STANDARDS



**LOCATION MAP**  
 1" = 2,000'

**SITE REFERENCE MARK 1**  
 CUT CROSS IN NORTH CORNER OF HEADWALL ON WEST SIDE OF EOLA ACROSS FROM NORTH PROPERTY LINE OF SITE.  
 ELEVATION = 726.97 NAVD88

**SITE REFERENCE MARK 2**  
 MAG NAIL IN NORTH FACE OF UTILITY POLE AT SOUTHWEST CORNER OF SITE.  
 ELEVATION = 730.98 NAVD88

**SITE REFERENCE MARK 3**  
 CUT CROSS IN NORTH SIDE OF LIGHT POLE BASE ON NORTH SIDE OF MUSTANG DRIVE ACROSS FROM NORTHWEST CORNER OF TENNIS COURTS.  
 ELEVATION = 733.45 NAVD88

CLIENT: **SCIENTEL SOLUTIONS**  
 948 SPRINGER DRIVE  
 LOMBARD, IL 60148

SITE ADDRESS: **245 N. EOLA ROAD**  
 AURORA, IL 60502



**Engineering Enterprises, Inc.**  
 Consulting Engineers  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eelweb.com  
 ILLINOIS PROFESSIONAL DESIGN FIRM # 184-002003

### ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION.

DATED AT SUGAR GROVE, ILLINOIS,

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019.

DAVID R. BURROUGHS  
 ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. 062-045276  
 EXPIRATION DATE: 11/30/19

NO.	DATE	REVISIONS
11	1/29/19	PER FOX METRO COMMENTS
10	1/23/19	PER COMED COMMENTS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/19	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS
4	4/23/18	PER CITY COMMENTS
3	4/19/18	PER FIRE MARSHALL COMMENTS
2	4/12/18	PER FIRE MARSHALL COMMENTS
1	3/15/18	PER CITY COMMENTS





**GENERAL NOTES AND CONSTRUCTION SPECIFICATIONS**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST ADDITION, THE ORDINANCES AND CODES OF THE CITY OF AURORA, THE SPECIFICATIONS OF FOX METRO WATER RECLAMATION DISTRICT, AND THESE IMPROVEMENT PLANS AND DETAILS.
- HOLD HARMLESS: THE CONTRACTOR, AS A CONDITION OF THE CONTRACT, HEREBY AGREES TO ASSUME THE ENTIRE RESPONSIBILITY AND LIABILITY FOR, AND DEFENSE OF, AND TO PAY AND INDEMNIFY AND HOLD THE OWNER, THEIR ENGINEERS, ARCHITECTS, LANDSCAPE ARCHITECTS AND EMPLOYEES; AND THE MUNICIPALITY, THEIR ENGINEERS, AGENTS AND EMPLOYEES HARMLESS FROM ALL CLAIMS FOR DAMAGES OR INJURY (OR DEATH RESULTING THEREFROM) TO ANY AND ALL PERSONS, INCLUDING EMPLOYEES OR AGENTS OR ANY PERSON OR FIRM ENGAGED IN WORK UPON THE PROJECT, ARISING OUT OF THE CONDUCT OF THE CONTRACTOR ARISING OUT OF THE PERFORMANCE OF THIS AGREEMENT OR ANY WORK RELEVANT THERETO, OR ARISING OUT OF ANY PROVISIONS OF THE OCCUPATIONS SAFETY AND HEALTH STANDARDS ACT.
- THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR SHALL EXAMINE THE PLANS AND SPECIFICATIONS, VISIT THE SITE OF THE WORK AND INFORM HIMSELF FULLY WITH THE WORK INVOLVED, GENERAL AND LOCAL CONDITIONS, ALL FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS AND ALL OTHER PERTINENT ITEMS WHICH MAY AFFECT THE COST AND TIME OF COMPLETION OF THIS PROJECT BEFORE SUBMITTING A PROPOSAL.
- PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL CALL THE ATTENTION OF THE ENGINEER TO ANY MATERIAL OR EQUIPMENT HE DEEMS INADEQUATE AND TO ANY ITEM OF WORK OMITTED.
- PERMITS AND LICENSES OF A TEMPORARY NATURE NECESSARY FOR THE PROSECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.
- IF ANY APPROVED EQUAL ITEMS ARE REQUIRED THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL AT LEAST ONE WEEK PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION OPERATIONS.
- THE CONTRACTOR WILL HAVE IN HIS POSSESSION ON THE JOB SITE A COPY OF THE PLANS AND SPECIFICATIONS DURING CONSTRUCTION.
- ALL ELEVATIONS ARE BASED BENCHMARKS AS SHOWN.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY REQUIRED INSPECTIONS WITH CITY OF AURORA, FOX METRO AND OTHER AGENCIES.
- THE CONTRACTOR SHALL KEEP ALL ADJOINING STREETS PAVEMENT CLEAN OF MUD, DIRT AND DEBRIS, AND WHEN NECESSARY SHALL CLEAN PAVEMENT ON A DAILY BASIS.
- THE CONTRACTOR SHALL OBTAIN, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGMEN AND OTHER CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE CITY OF AURORA REQUIREMENTS AND THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
- ALL ROAD SIGNS, STREET SIGNS AND TRAFFIC SIGNS WHICH NEED TO BE RELOCATED OR MOVED DUE TO CONSTRUCTION SHALL BE TAKEN DOWN AND STORED BY THE CONTRACTOR AT HIS OWN EXPENSE, EXCEPT THOSE THAT ARE NECESSARY FOR PROPER TRAFFIC CONTROL WHICH SHALL BE TEMPORARILY RESET UNTIL COMPLETION OF CONSTRUCTION OPERATIONS. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESET, AT HIS EXPENSE, ALL SAID SIGNS.
- THE CONTRACTOR SHALL BE REQUIRED TO MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS, STRUCTURES, POLES, CABLES AND PIPE LINES, BEFORE CONSTRUCTION BEGINS. HE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE ENGINEER AND OWNER AT HIS OWN EXPENSE.
- LOCATIONS OF UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY, AND ARE NOT NECESSARILY COMPLETE. CONTRACTOR SHALL MAKE HIS OWN INVESTIGATIONS AS TO LOCATION OF ALL EXISTING UNDERGROUND STRUCTURES, CABLES AND PIPE LINES.
- IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER SO THAT THE CONFLICT MAY BE RESOLVED.
- THE CONTRACTOR SHALL NOTIFY THE J.U.L.I.E. (1-800-892-0123) AT LEAST THREE DAYS PRIOR TO CONSTRUCTION SO THAT EACH UTILITY COMPANY CAN STAKE OUT ANY UNDERGROUND IMPROVEMENTS THAT THEY MAY HAVE WHICH MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AND OWNER BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL TRENCHES CAUSED BY THE CONSTRUCTION OF SEWERS, SERVICE SEWERS, WATER MAINS, WATER SERVICE PIPES AND THE EXCAVATION AROUND CATCH BASINS, MANHOLES, INLETS AND OTHER APPURTENANCES WHICH OCCUR WITHIN THE LIMITS OF EXISTING OR PROPOSED PAVEMENTS, SIDEWALKS AND CURB AND GUTTERS OR WHERE THE EDGE OF THE TRENCH SHALL BE WITHIN TWO FEET (2') OF SAID IMPROVEMENTS SHALL BE BACKFILLED WITH APPROVED SUITABLE SELECT MATERIAL AND PROPERLY COMPACTED.
- THE CONTRACTOR SHALL RESTORE ANY AREA DISTURBED OUTSIDE THE CONSTRUCTION SITE TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL USE. THIS SHALL INCLUDE FINISH GRADING, ESTABLISHMENT OF A VEGETATIVE COVER (SEEDING OR SOD), GENERAL CLEANUP AND PAVEMENT REPLACEMENT.
- ALL LOT IRONS DAMAGED OR REMOVED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED BY THE ENGINEER AND SAID COST OF REPLACEMENT SHALL BE PAID BY THE CONTRACTOR.
- BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER. FINAL PAYMENT SHALL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
- CAD FILES FOR THIS PROJECT ARE THE PROPERTY OF ENGINEERING ENTERPRISES, INC. EEI CAN PROVIDE CAD FILES FOR BIDDING PURPOSES UPON REQUEST. TO OBTAIN A CAD FILE FOR BIDDING, THE CONTRACTOR MUST SIGN AN ELECTRONIC FILE AGREEMENT AND PAY A \$25 CAD FILE FEE. CAD FILES OBTAINED FOR BIDDING PURPOSES CANNOT BE USED FOR CONSTRUCTION STAKING AS THEY WILL NOT REFLECT ANY CHANGES OR ADDENDUMS DURING THE BIDDING PROCESS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PRODUCTION OF RECORD DRAWINGS PER CITY OF AURORA REQUIREMENTS. CITY OF AURORA REQUIREMENTS FOR RECORD DRAWINGS CAN BE FOUND AT: <http://www.aurora-il.org/documents/engineering/recorddrawingrequirements.pdf>

**WATER MAIN TESTING AND DISINFECTION PROCEDURES**

GENERAL:  
 ALL WATER DISTRIBUTION SYSTEM VALVES SHALL ONLY BE OPERATED BY AUTHORIZED CITY OF AURORA EMPLOYEES AND AUTHORIZED DESIGNATED REPRESENTATIVES OF THE CITY OF AURORA.

DESIGN PLANS SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEERING DIVISION OF THE DEPARTMENT OF PUBLIC WORKS WITH A COMPLETED IEPA APPLICATION FOR CONSTRUCTION PERMIT. THE PLANS SHALL INDICATE THE PROPOSED SAMPLE AND CHLORINE INJECTION POINTS (COPPER WHIPS). UPON APPROVAL BY THE ENGINEERING DIVISION, THE PLANS MUST BE DISTRIBUTED TO ALL CONTRACTORS AND CHLORINATION CONTRACTORS WHO WILL BE WORKING ON SITE.

ALL CONTAMINATION PREVENTIVE MEASURES, PRESSURE TESTING, PRELIMINARY FLUSHING, CHLORINATION, AND BACTERIOLOGICAL SAMPLING OF THE WATER MAIN SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE CITY OF AURORA'S ENGINEERING DIVISION OR ITS DESIGNATED REPRESENTATIVE. THE INSTALLATION CONTRACTOR SHALL NOTIFY THE CITY OF AURORA'S ENGINEERING DIVISION OR ITS DESIGNATED REPRESENTATIVE A MINIMUM OF 48 HOURS IN ADVANCE OF EACH OF THE FOLLOWING ACTIVITIES: STARTING CONSTRUCTION OF A PROJECT, PRESSURE TESTING, PRELIMINARY FLUSHING, CHLORINATION, AND BACTERIOLOGICAL SAMPLING OF ANY WATER MAIN PIPING.

**CONTAMINATION PREVENTIVE MEASURES DURING CONSTRUCTION:**

SOIL, ORGANIC MATTER, AND OTHER HEAVY MATERIAL TYPICALLY CONTAIN BACTERIA AND CAN PREVENT EVEN HIGH CONCENTRATIONS OF CHLORINE FROM CONTACTING AND KILLING THE ORGANISMS. THESE BACTERIA CAN CAUSE FAILURE OF BACTERIOLOGICAL SAMPLING. PREVENTING THESE TYPES OF MATERIALS FROM ENTERING WATER MAIN PIPE EITHER DURING OR BEFORE INSTALLATION IS CRITICAL. PREVENTIVE MEASURES ARE DESCRIBED IN DETAIL IN AWWA STANDARD C651-14 SECTION 4.8. AT A MINIMUM, THE FOLLOWING PREVENTIVE MEASURES SHALL BE FOLLOWED DURING WATER MAIN PIPE INSTALLATION:  
 1. **KEEP PIPE CLEAN AND DRY:** THE INTERIORS OF PIPES, FITTINGS, AND VALVES SHALL BE PROTECTED FROM CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WATER-TIGHT OR WITH RODENT-PROOF PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S ACTIVITIES OR FOR OTHER REASONS.  
 2. **JOINTS:** JOINTS OF ALL PIPE IN THE TRENCH SHALL BE COMPLETED BEFORE WORK IS STOPPED.  
 3. **CLEANING AND SWABBING:** IF DIRT OR OTHER FOREIGN MATERIAL ENTERS THE PIPE, IT SHALL BE REMOVED AND THE INTERIOR OF THE PIPE SURFACE SWABBED WITH A 1 TO 5% SODIUM HYPOCHLORITE (NAOCL) DISINFECTING SOLUTION. IF IN THE OPINION OF THE CITY OF AURORA ENGINEERING DIVISION, OR ITS DESIGNATED REPRESENTATIVE, THE FOREIGN MATERIAL IN THE PIPE WILL NOT BE REMOVED BY PRELIMINARY FLUSHING ACTIVITIES, THE INTERIOR OF THE PIPE SHALL BE CLEANED USING MECHANICAL MEANS AT NO ADDITIONAL COST TO THE CITY OF AURORA AND THEN SWABBED AS DESCRIBED ABOVE.

**PRESSURE/LEAKAGE TESTING:**

ALL TESTING ACTIVITIES SHALL BE RECORDED AND WITNESSED BY THE CITY OF AURORA'S ENGINEERING DIVISION OR ITS DESIGNATED REPRESENTATIVE. ANY TESTING NOT WITNESSED WILL NOT BE ACCEPTED.

AFTER THE WATER MAIN HAS BEEN LAID AND PARTLY BACKFILLED, THE WATER MAIN SHALL BE SLOWLY FILLED WITH WATER TO ELIMINATE AIR POCKETS PRIOR TO TESTING. THE MAIN SHALL BE FILLED WITH WATER AT A RATE TO ENSURE THAT THE WATER WITHIN THE MAIN WILL FLOW AT A VELOCITY NO GREATER THAN 1 FOOT/SECOND. THIS WATER SHALL REMAIN IN THE PIPE FOR AT LEAST 24 HOURS BEFORE TESTING CAN BEGIN.

BEFORE APPLYING THE TEST PRESSURE, AIR SHALL BE COMPLETELY EXPULSED FROM THE PIPE. THE TEST PRESSURE SHALL BE 150 PSI AND THE TEST SHALL LAST FOR A MINIMUM OF 2 HOURS. A LOSS OF MORE THAN 5 PSI DURING THE TEST SHALL RESULT IN A TEST FAILURE AND THE TEST MUST BE RESTARTED. UPON COMPLETION OF THE TEST, THE VOLUME OF RECOVERY WATER SHALL BE DEFINED AS THE AMOUNT NECESSARY TO RESTORE THE PRESSURE WITHIN THE TEST SECTION TO THE VALUE AT THE COMMENCEMENT OF THE TEST. THE ALLOWABLE LEAKAGE SHALL BE AS DETERMINED BY AWWA STANDARD C600-100 SEC. 5.2, BASED ON AN ALLOWABLE LEAKAGE OF 10.49 GPD/MI/INCH. WHILE LENGTHS GREATER THAN 1,000 FEET MAY BE TESTED AT ONE TIME, THE PERMISSIBLE LEAKAGE WILL BE CALCULATED FOR THE LENGTH OF WATER MAIN TESTED UP TO A MAXIMUM OF 1,000 FEET REGARDLESS IF THE ACTUAL LENGTH OF MAIN TESTED IS LONGER.

**PRELIMINARY FLUSHING:**

AFTER SATISFACTORY COMPLETION OF PRESSURE/LEAKAGE TESTING, THE WATER MAIN SHALL RECEIVE A PRELIMINARY FLUSH. FLUSHING OF WATER MAINS SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE CITY OF AURORA'S ENGINEERING DIVISION, OR ITS DESIGNEE, IN ACCORDANCE WITH THE APPROVED FLUSHING PLAN. THE FLUSHING SHALL INCLUDE 100% OF THE NEWLY INSTALLED WATER MAIN AS WELL AS EVERY FIRE HYDRANT INSTALLED. DURING THE FLUSHING OPERATION THE DIRECTION OF FLOW THROUGH THE MAINS SHALL BE REVERSED. ALL MAIN LINE AND HYDRANT VALVES SHALL BE OPENED AND CLOSED WHILE FLUSHING IN EACH DIRECTION.

THE FLUSHING VELOCITY IN THE MAIN SHALL BE A MINIMUM OF 3.0 FEET/SECOND. SEE TABLE A FOR RECOMMENDED FLOWS TO PROPERLY FLUSH PIPING.

PIPE DIAMETER INCHES	FLOW REQUIRED TO PRODUCE 3.0 FT/S VELOCITY IN MAIN GPM	SIZE OF TAP INCHES		NUMBER OF 2-1/2 INCH HYDRANT OUTLETS
		1	2	
4	120	1	—	1
6	260	—	1	1
8	470	—	2	1
10	730	—	3	1
12	1,060	—	—	2
16	1,880	—	5	2

\* ASSUMING 40 PSI RESIDUAL PRESSURE IN EXISTING WATER MAIN  
 \*\* NUMBER OF TAPS ON PIPE BASED ON DISCHARGE THROUGH 5 FT. OF GALVANIZED IRON (GI) PIPE WITH ONE 90 DEGREE ELBOW.  
 NOTE: FLUSHING IS NO SUBSTITUTE FOR PREVENTIVE MEASURES DURING CONSTRUCTION. CERTAIN CONTAMINANTS, SUCH AS CAKED DEPOSITS, RESIST FLUSHING AT ANY FEASIBLE VELOCITY.

**WATER MAIN DISINFECTION:**

DISINFECTION SHALL BE ACCOMPLISHED BY THE USE OF LIQUID SODIUM HYPOCHLORITE (NAOCL) OR CHLORINE GAS ONLY. THE CITY OF AURORA'S ENGINEERING DIVISION OR ITS DESIGNATED REPRESENTATIVE SHALL WITNESS THE CHLORINATION OF THE WATER MAIN. CHLORINATION OF THE WATER MAIN SHALL NOT BE PERMITTED UNTIL THE MAIN HAS PASSED THE PRESSURE/LEAKAGE TEST AND A PRELIMINARY FLUSH HAS BEEN PERFORMED, WITNESSED, AND APPROVED.

UNDER THE SUPERVISION OF THE PROJECT FIELD REPRESENTATIVE, WATER FROM THE EXISTING DISTRIBUTION SYSTEM SHALL BE MADE TO FLOW AT A CONSTANT RATE INTO THE NEWLY LAID WATER MAIN. AT A POINT NOT MORE THAN 10 FEET DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN, WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL RECEIVE NOT LESS THAN 50 MG/L OF FREE CHLORINE (SEE TABLE B OR C BELOW).

IF CHLORINE GAS IS UTILIZED, A MINIMUM OF TWO PEOPLE EMPLOYED BY THE CHLORINATOR ARE REQUIRED WHEN CHLORINATING A MAIN. ONE PERSON TO MONITOR THE CHLORINE GAS SYSTEM AT THE CYLINDER AND ONE PERSON TO MONITOR THE FREE CHLORINE LEVELS AT THE WHIP/SAMPLE LOCATIONS. THE CHLORINE GAS CYLINDER IS NOT TO BE LEFT UNATTENDED AT ANY TIME DURING THE DISINFECTION PROCEDURE.

ALL MAIN LINE AND HYDRANT VALVES (EXCEPT FOR VALVES AT THE CONNECTION BETWEEN THE NEW AND EXISTING SYSTEMS) SHALL BE OPERATED AFTER THE MAIN HAS BEEN CHLORINATED IN ORDER TO ALLOW THE VALVE DISK TO MAKE CONTACT WITH THE CHLORINE SOLUTION. AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY THE CITY OF AURORA OR ITS DESIGNEE), WATER USED TO DISINFECT THE NEW MAIN DURING THE APPLICATION OF CHLORINE WILL BE SUPPLIED THROUGH A TEMPORARY CONNECTION. THIS TEMPORARY CONNECTION SHALL BE INSTALLED WITH AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE TO PREVENT BACKFLOW INTO THE DISTRIBUTION SYSTEM.

TABLE B  
CHLORINE REQUIRED TO PRODUCE 50 MG/L CONCENTRATION IN 100 FT. OF PIPE

PIPE DIAMETER (INCH)	100 % CHLORINE (POUNDS / 100 LF)
4	.026
6	.060
8	.108
10	.170
12	.240
16	.434

\* APPROXIMATE DOSAGES REQUIRED

TABLE C  
1% SODIUM HYPOCHLORITE (NaOCl) SOLUTION REQUIRED TO PRODUCE 50 MG/L CONCENTRATION IN 100 FT. OF PIPE

PIPE DIAMETER (INCH)	1% SODIUM HYPOCHLORITE SOLUTION* (GALLONS / 100 LF)
4	.32
6	.72
8	1.30
10	2.04
12	2.88
16	2.60

\* APPROXIMATE DOSAGES REQUIRED

A MINIMUM FREE CHLORINE RESIDUAL OF 25 MG/L SHALL REMAIN IN THE WATER MAIN AFTER STANDING 24 HOURS IN THE PIPE AS TESTED/CONFIRMED BY THE CITY'S ENGINEERING DIVISION OR DESIGNATED REPRESENTATIVE. A FREE CHLORINE CONCENTRATION LESS THAN 25 MG/L INDICATES AN UNUSUALLY LARGE CHLORINE DEMAND AND CAN BE AN INDICATION OF SIGNIFICANT CONTAMINATION WITHIN THE PIPE. THIS CONDITION SHALL REQUIRE THE CONTRACTOR TO PERFORM A SECOND PRELIMINARY FLUSH AND ALSO TO CHLORINATE THE MAIN A SECOND TIME PRIOR TO COLLECTION OF ANY SAMPLES.

**FINAL FLUSHING AND BACTERIOLOGICAL TESTING:**

A MINIMUM OF 24 HOURS AFTER THE WATER MAIN HAS BEEN PROPERLY CHLORINATED, THE CONTRACTOR SHALL SCHEDULE AN APPOINTMENT FOR BACTERIOLOGICAL TESTING. THE CONTRACTOR SHALL CONTACT THE CITY OF AURORA'S MICROBIOLOGY LABORATORY AT 630-256-3255 TO SCHEDULE SAMPLE COLLECTION. TYPICALLY, SAMPLE COLLECTION WILL OCCUR ON THE NEXT BUSINESS DAY. SAMPLES WILL NOT BE COLLECTED ON FRIDAYS, SATURDAYS, OR SUNDAYS.

ALL OF THE WATER MAIN THAT IS COVERED BY ONE IEPA PERMIT MUST BE TESTED AND SAMPLED AS A COMPLETE PROJECT. BACTERIOLOGICAL SAMPLING WILL NOT BEGIN UNTIL THE ENTIRE LENGTH OF THE WATER MAIN BEING PERMITTED BY THE IEPA FOR THAT PARTICULAR PROJECT HAS BEEN INSTALLED, PRESSURE TESTED, AND CHLORINATED. MODIFICATIONS OF THIS REQUIREMENT MUST BE DISCUSSED WITH THE CITY'S REPRESENTATIVE 7 DAYS PRIOR TO DISINFECTION PROCEDURES.

JUST PRIOR TO SAMPLING, THE MAIN SHALL BE FLUSHED UNDER THE SUPERVISION OF APPROVED CITY OF AURORA PERSONNEL OR A DESIGNATED REPRESENTATIVE TO REDUCE THE FREE CHLORINE CONCENTRATION TO NO MORE THAN 3.5 MG/L. CITY OF AURORA WATER PRODUCTION DIVISION PERSONNEL SHALL COLLECT ALL BACTERIOLOGICAL SAMPLES. SAMPLE POINTS SHALL CONSIST OF ONLY COPPER WHIPS ATTACHED TO THE MAIN AND SHALL BE LOCATED EVERY 1,200 FEET, PLUS ONE LOCATION FROM THE END OF THE LINE, AND AT LEAST ONE LOCATION FROM EACH BRANCH GREATER THAN ONE PIPE LENGTH LONG (GENERALLY 20 FEET). REPRESENTATIVE SAMPLES SHALL BE COLLECTED AT LOCATIONS AS DIRECTED BY THE CITY OF AURORA'S WATER PRODUCTION DIVISION. SAMPLES SHALL NOT BE DRAWN FROM HYDRANTS.

ALL WATER MAINS MUST BE SHOWN TO BE FREE OF BACTERIAL CONTAMINATION BEFORE BEING PLACED INTO SERVICE. ALL SAMPLES SHALL BE ANALYZED FOR BACTERIOLOGICAL CONTAMINATION AT THE CITY OF AURORA'S ILLINOIS DEPARTMENT OF PUBLIC HEALTH CERTIFIED LABORATORY. IF AN INITIAL SAMPLE SET INDICATES NO BACTERIAL CONTAMINATION IN THE WATER MAIN THEN THE DISINFECTION WILL BE CONSIDERED SATISFACTORY. IF ANY OF THE SAMPLES THAT ARE PART OF THE INITIAL SAMPLE SET DO NOT PASS SATISFACTORYLY, THEN TWO CONSECUTIVE WATER SAMPLES COLLECTED AT LEAST 24 HOURS APART FROM EACH OF THE UNSATISFACTORY LOCATIONS MUST PASS TO INDICATE NO BACTERIOLOGICAL CONTAMINATION AND TO ALLOW THE MAIN TO BE PLACED INTO SERVICE.

THE CITY OF AURORA WILL COLLECT A TOTAL OF THREE SAMPLES FROM EACH DESIGNATED SAMPLE LOCATION FREE OF CHARGE. IF ANY OF THE THIRD SAMPLES COLLECTED FROM ANY LOCATION INDICATE BACTERIOLOGICAL CONTAMINATION THEN THE CONTRACTOR MUST AGAIN PERFORM PRELIMINARY FLUSHING AND CHLORINATION (AS DESCRIBED ABOVE) ON THE WATER MAIN BEFORE ADDITIONAL SAMPLES WILL BE COLLECTED BY THE CITY OF AURORA. IF THE PORTIONS OF THE WATER MAIN WHICH HAVE NOT PASSED THE BACTERIOLOGICAL SAMPLING CAN BE PROPERLY ISOLATED FROM THE PORTIONS THAT HAVE PASSED, AND THE CITY OF AURORA ENGINEERING DIVISION OR ITS DESIGNATED REPRESENTATIVE APPROVES, THEN ONLY THE UNSATISFACTORY PORTIONS OF THE MAIN WILL BE REQUIRED TO BE RE-FLUSHED, RE-CHLORINATED, AND RE-SAMPLED.

ONCE SAMPLES ARE COLLECTED, CITY OF AURORA EMPLOYEES OR ITS DESIGNATED REPRESENTATIVE SHALL STOP THE FLOW OF WATER THROUGH THE COPPER SAMPLE WHIP AND THE MAIN. THUS, ALL VALVES ASSOCIATED WITH ALL HYDRANTS, COPPER WHIPS, AND NEW MAIN ISOLATION VALVES SHALL BE CLOSED AND MAY NOT BE LEFT "RUNNING" BETWEEN COLLECTIONS OF SAMPLES ON CONSECUTIVE DAYS.

AFTER SAMPLES ARE COLLECTED, CITY OF AURORA PERSONNEL OR ITS DESIGNATED REPRESENTATIVE SHALL CLOSE THE MAIN ISOLATION VALVE THAT PROVIDES WATER FROM THE EXISTING WATER MAIN INTO THE NEWLY INSTALLED WATER MAIN BEING TESTED. THIS VALVE SHALL REMAIN CLOSED UNTIL THE WATER MAIN PROJECT RECEIVES APPROVAL TO BECOME ACTIVE OR IF ADDITIONAL SAMPLING OR FLUSHING IS REQUIRED. APPROVED CITY OF AURORA PERSONNEL, OR ITS DESIGNATED REPRESENTATIVE, SHALL BE THE ONLY INDIVIDUALS ALLOWED TO OPERATE THIS VALVE.

ANY QUESTIONS CONCERNING INSTALLATION, TESTING, OR DISINFECTION PROCEDURES SHOULD BE DIRECTED TO THE CITY'S DESIGNATED REPRESENTATIVE OR THE WATER PRODUCTION DIVISION AT 630-256-3250.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / [www.eeiweb.com](http://www.eeiweb.com)

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER OCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**GENERAL NOTES**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	<b>2</b> OF <b>25</b>

**EARTHWORK SPECIFICATIONS AND GENERAL NOTES**

- PERIMETER EROSION CONTROL AND STABILIZED CONSTRUCTION ENTRANCE SHALL BE IN PLACE PRIOR TO ANY EARTH DISTURBANCE.
- THE GRADING AND CONSTRUCTION OF THE SITE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORMWATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.
- TOPSOIL EXCAVATED SHALL BE EXCAVATED FROM UNDER ALL PROPOSED IMPROVEMENTS AND REMOVED FROM SITE. TOPSOIL IS TO BECOME THE PROPERTY OF THE CONTRACTOR AND USED AS TOPSOIL ON ANOTHER PROJECT.
- THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADE. A MINIMUM OF SIX INCHES (6") OF TOPSOIL IS TO BE PLACED BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED.
- EXCAVATED MATERIAL THAT IS CLEAN CONSTRUCTION DEMOLITION DEBRIS (CCDD) SHALL BE DISPOSED IN A LICENSED CCDD QUARRY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL 663 FORMS, TESTING AND OTHER RESTRICTIONS AS SET BY THE RECEIVING QUARRY.
- ANY POSSIBLE CCDD MATERIAL THAT TESTS AS CONTAMINATED SHALL HAVE THE TEST VERIFIED BY OWNER PRIOR TO HAUL-OFF.
- CONTAMINATED MATERIAL PER CCDD REQUIREMENTS SHALL BE DISPOSED OF IN A LICENSED LANDFILL.
- ANY FILL MATERIAL SHALL BE PLACED IN LEVEL UNIFORM LAYERS SO THAT THE COMPACTED THICKNESS IS APPROXIMATELY SIX INCHES (6"). EACH LAYER SHALL BE THOROUGHLY MIXED DURING SPREADING TO ENSURE UNIFORMITY.
- ANY FILL MATERIAL WITHIN BUILDING, ROADWAY, PATH AND PARKING AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557 (MODIFIED PROCTOR METHOD).
- ANY NATIVE MATERIAL WITHIN BUILDING, ROADWAY, PATH AND PARKING AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES AND COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557 (MODIFIED PROCTOR METHOD).
- UNSUITABLE MATERIAL ENCOUNTERED IN EXCAVATING FOR PARKING AREAS, DRIVEWAYS, ROADWAYS AND BUILDING PAD SUBGRADES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE OWNER. UNSUITABLE MATERIAL THAT IS EXCAVATED SHALL BE REMOVED FROM THE SITE AND WILL BECOME THE PROPERTY OF THE CONTRACTOR.
- ANY POSSIBLE UNSUITABLE MATERIAL SHALL BE VERIFIED BY OWNER PRIOR TO HAUL-OFF.
- PROPOSED BUILDING, ROADWAY, PATH AND PARKING AREAS SHALL BE EXCAVATED OR FILLED TO PLUS OR MINUS 0.1 FOOT OF DESIGN SUBGRADE ELEVATIONS BY THE CONTRACTOR.
- THE SUBGRADE FOR PROPOSED BUILDING, ROADWAY, PATH AND PARKING AREAS SHALL BE PROOF-ROLLED BY THE CONTRACTOR AND WITNESSED BY THE OWNER PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE COURSE. PROOF ROLL SHALL BE DONE WITH A FULL LEGALLY LOADED SIX-WHEEL OPERATED BY THE CONTRACTOR. SAID TRUCK SHALL BE LOADED WITH CRUSHED STONE. 48 HOURS NOTICE MUST BE GIVEN TO THE OWNER PRIOR TO PROOF ROLL. ANY UNSTABLE AREAS ENCOUNTERED SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE OWNER.
- UPON COMPLETION OF THE SURFACE IMPROVEMENTS, THE EXCAVATION CONTRACTOR SHALL RESPREAD A MINIMUM SIX INCH LAYER OF TOPSOIL ON ALL DISTURBED AREAS.

**STORM SEWER SPECIFICATIONS AND GENERAL NOTES**

- ALL STORM SEWER CONSTRUCTION AND TESTING SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, ADOPTED APRIL 1, 2016, AND REVISIONS THERETO, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE NOTES IN THE PLANS, AND IN ACCORDANCE WITH CODES AND ORDINANCES OF THE CITY OF AURORA, ILLINOIS.
- REINFORCED CONCRETE PIPE (RCP) SHALL FOLLOW ASTM DESIGNATION C-76 AND C-14, CLASS III AND IV WITH BELL AND SPIGOT OR TONGUE AND GROOVE ENDS UTILIZING CEMENT MORTAR, MASTIC COMPOUND JOINTS, OR EXCEPT WHERE DESIGNATED OTHERWISE ON THE PLANS AT LOCATIONS WHERE THE STORM SEWER CROSSES WATER MAINS, THE RCP SHALL BE FURNISHED WITH RUBBER-GASKETED (O-RINGS) JOINTS MEETING THE REQUIREMENTS OF ASTM-361.
- HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL BE ADS MEGA GREEN OR ENGINEER APPROVED RECYCLED HDPE PIPE. HDPE PIPE AND JOINTS SHALL MEET THE STRUCTURAL AND JOINT REQUIREMENTS OF AASHTO M294, TYPE S. JOINTS TO BE SOIL-TIGHT USING PLAIN END PIPE JOINED WITH EXTERNAL COUPLERS OR COUPLING BANDS COVERING AT LEAST TWO FULL CORRUGATIONS ON EACH END OF THE PIPE. STANDARD CONNECTIONS SHALL MEET THE SOIL-TIGHTNESS REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, PARAGRAPH 26.4.2.4(c). INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES. THE PIPE SHALL BE BEDDED IN A MINIMUM 6 INCHES OF COMPACTED CA-7, HAUNCHED WITH COMPACTED CA-7 AND BACKFILLED WITH A MINIMUM 6 INCHES OF COMPACTED CA-7. TRENCH SHALL BE A MINIMUM OF 18" WIDER THAN THE OUTSIDE DIAMETER OF THE PIPE.
- ALL MANHOLES AND INLETS SHALL BE PRECAST REINFORCED CONCRETE ASTM DESIGNATION C-478. PLEASE REFER TO DETAILS.
- EXISTING FIELD TILE ENCOUNTERED AT AN ELEVATION ABOVE THE PROPOSED DRAINAGE SYSTEM SHALL BE CONNECTED TO THE DRAINAGE SYSTEM BY A METHOD APPROVED BY THE ENGINEER. PLEASE CONTACT THE DESIGN ENGINEER AT ENGINEERING ENTERPRISES, INC. PRIOR TO MAKING ANY CONNECTIONS. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CONSTRUCTION.
- EXISTING FIELD TILE ENCOUNTERED AT AN ELEVATION BELOW THE PROPOSED DRAINAGE SYSTEM SHALL BE REPLACED BY A METHOD APPROVED BY THE ENGINEER. (THE USUAL METHOD WILL BE TO SLEEVE THE FIELD TILE WITH RIGID PIPE AND BED THE SLEEVE.) PLEASE CONTACT THE DESIGN ENGINEER AT ENGINEERING ENTERPRISES, INC. PRIOR TO MAKING ANY REPLACEMENTS. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CONSTRUCTION.
- SHOP DRAWING SUBMITTALS:
  - SUBMIT CUT SHEETS FOR EACH STORM STRUCTURE, CLEARLY NOTING APPROPRIATE ELEVATIONS AND DIMENSIONS.
  - SUBMIT CUT SHEETS FOR EACH PIPE TYPE, CLEARLY NOTING WHAT THE PIPE WILL BE USED FOR AND IN THE CASE OF CUT SHEETS WITH MULTIPLE ITEMS, CLEARLY INDICATE WHICH ITEM IS APPLICABLE.

**SANITARY SEWER SPECIFICATIONS AND GENERAL NOTES**

SEE SHEET 14 FOR FOX METRO WATER RECLAMATION DISTRICT NOTES AND SPECIFICATIONS.

**WATER MAIN SPECIFICATIONS AND GENERAL NOTES**

- WATER MAIN, WATER SERVICE, FIRE SERVICE, AND FIRE HYDRANT ARE TO BE INSTALLED AND TESTED PER CITY OF AURORA REQUIREMENTS AND THE FOLLOWING REQUIREMENTS.

**DUPAGE COUNTY DIVISION OF TRANSPORTATION GENERAL NOTES AND SPECIFICATIONS**

- ALL CONSTRUCTION WITHIN THE COUNTY'S RIGHT-OF-WAY SHALL BE PERFORMED ACCORDING TO IDOT'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" (LATEST EDITION).
- DAILY LANE CLOSURES ARE PERMITTED BETWEEN 9:00 A.M. AND 4:00 P.M. ONLY. TRAFFIC CONTROL SHALL CONFORM TO IDOT'S HIGHWAY STANDARDS AND THE FHWA'S 'MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES' AND IDOT'S SUPPLEMENT AT ALL TIMES DURING CONSTRUCTION. TRAFFIC CONTROL SHALL INCLUDE USE OF ADVANCE WARNING LANE CLOSURE SIGNAGE, AN ARROW BOARD AND TYPE II BARRICADES WITH SANDBAGS.
- LANE CLOSURES ARE NOT PERMITTED ON COUNTY ROADWAYS DURING SNOWFALL OR WITHIN 2 HOURS PRIOR TO PREDICTION OF SNOWFALL OR PRECIPITATION CONDITIONS BETWEEN NOVEMBER 15 AND APRIL 15 FOR MAINTENANCE OF THE ROADWAY PAVEMENT BY COUNTY HIGHWAY MAINTENANCE DEPARTMENT STAFF AND EQUIPMENT.
- DISTURBED AREAS OF THE RIGHT-OF-WAY SHALL BE DRESSED WITH A MINIMUM OF 6" TOPSOIL AND CLASS 2A SALT TOLERANT SEED (WITH EROSION CONTROL BLANKET) OR SOD (SALT TOLERANT AND STAKED IN PLACE).
- EROSION CONTROL MEASURES SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF THE DUPAGE COUNTY STORMWATER AND FLOODPLAIN ORDINANCE SPECIFICATIONS AT ALL TIMES.
- EQUIPMENT AND MATERIALS SHALL NOT BE STORED WITHIN THE COUNTY'S RIGHT-OF-WAY AT ANY TIME WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE COUNTY ENGINEER, OR HIS DULY AUTHORIZED ASSIGN.
- PAVEMENT, CURB/GUTTER AND STORM STRUCTURES WITHIN THE COUNTY'S RIGHT-OF-WAY SHALL BE MAINTAINED FREE OF MUD/DEBRIS AT ALL TIMES AND SHALL BE CLEANED AS IS REQUIRED AND/OR AS DIRECTED BY DUPAGE COUNTY.
- CONTACT DUPAGE COUNTY (630/407-6900) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF AND AT THE COMPLETION OF THE DESCRIBED WORK WITHIN THE COUNTY'S RIGHT-OF-WAY.
- TRENCH BACKFILL FOR NON-PAVED AREAS SHALL BE INSTALLED WITHIN THE COUNTY'S RIGHT-OF-WAY PER DUPAGE COUNTY'S STANDARD.
- TRENCH BACKFILL BELOW EXISTING OR PROPOSED PAVEMENT, CURB/GUTTER AND/OR SIDEWALK SHALL BE INSTALLED WITHIN THE COUNTY'S RIGHT OF WAY PER DUPAGE COUNTY'S STANDARD.
- THERE SHALL BE NO DECORATIVE STONE, LANDSCAPING OR TREES PLANTED WITHIN THE COUNTY RIGHT OF WAY.

**COMED ADDITIONAL REQUIREMENTS**

- WHEN WORKING IN THE VICINITY OF COMED'S ELECTRIC DISTRIBUTION LINES DURING INSTALLATION, OPERATION, MAINTENANCE OR OTHERWISE, OSHA CLEARANCE REQUIREMENTS BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED AND COMED'S EXISTING 12,000 VOLT AND 34,000 VOLT ELECTRIC DISTRIBUTION CONDUCTORS MUST BE MET. UNDER NO CIRCUMSTANCES, SHALL TRUCK BEDS BE RAISED UNDERNEATH COMED DISTRIBUTION LINES.
- THE CONTRACTOR SHALL NOT PLACE OBSTRUCTIONS ON COMED PROPERTY (INCLUDING PROPOSED EASEMENT) THAT WILL RESTRICT OUR ABILITY TO ACCESS, OPERATE AND MAINTAIN EXISTING AND FUTURE TRANSMISSION AND DISTRIBUTION FACILITIES. FULL, UNRESTRICTED ACCESS WITHOUT HINDRANCE SHALL BE AVAILABLE AT ALL TIMES.
- THE CONTRACTOR SHALL NOT LEAVE CONSTRUCTION EQUIPMENT AND MATERIALS ON COMED PROPERTY WHEN THERE IS NO WORK ACTIVITY. THIS INCLUDES OVERNIGHT.
- UPON COMPLETION OF PROJECT, THE CONTRACTOR MUST REMOVE ANY EQUIPMENT, CONSTRUCTION DEBRIS AND MATERIAL FROM THE EASEMENT AND RESTORE ANY DISTURBED AREAS OF THE EASEMENT THAT WAS NOT PART OF THE APPROVED PROJECT PLAN TO THEIR PRE-CONSTRUCTION CONDITION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AT THE SITE TO BE PERFORMED IN COMPLETE COMPLIANCE WITH THE APPROPRIATE JULIE REGULATIONS TO ENSURE THE EXISTING COMED UNDERGROUND DISTRIBUTION FACILITIES ARE PROPERLY LOCATED AND PROTECTED. DRAWINGS MUST DELINEATE THE COMED UNDERGROUND FACILITIES ACCURATELY. USE EXTREME CAUTION NEAR COMED UNDERGROUND FACILITIES. EXCAVATION WITHIN THREE (3) FEET OF UNDERGROUND COMED FACILITIES SHALL ONLY BE DONE BY HAND EXCAVATION METHODS.
- IF ANY COMED UNDERGROUND FACILITIES BECOME EXPOSED DURING EXCAVATION, EXCAVATION SHALL CEASE IMMEDIATELY AND COMED UNDERGROUND FLS STEVE SYLVESTER SHALL BE CONTACTED IMMEDIATELY @ 630-723-2116. COURSE OF ACTION TO BE DETERMINED AFTER FLS INVESTIGATION.
- MINIMUM 10' EXCAVATION DISTANCE FROM ANY WOODEN POLE: IF EXCAVATION ENROACHES 10' FROM ANY WOODEN POLE, EXCAVATION SHALL CEASE IMMEDIATELY AND COMED OVERHEAD LEAD FLS BRIAN KAYZAR SHALL BE CONTACTED IMMEDIATELY @ 630-723-2155. COURSE OF ACTION TO BE DETERMINED AFTER FLS INVESTIGATION
- IF ANY COMED FIBER OPTIC FACILITIES BECOME EXPOSED DURING EXCAVATION, EXCAVATION SHALL CEASE IMMEDIATELY AND CONTACTED CHRIS COLLINS AT 630-437-3150 IMMEDIATELY. COURSE OF ACTION TO BE DETERMINED AFTER FLS INVESTIGATION
- ANY ACTIVITY ON COMED RIGHT OF WAY NEEDS TO BE COORDINATED THROUGH DAVID HOLMAN. PLEASE CONTACT MR. HOLMAN AT 630-467-3605.
- ANY PROPOSED NON-COMED UNDERGROUND FACILITIES (CABLE, PIPE, ETC.) SHALL NOT CROSS EASEMENT AT ANY ANGLE (TO REMAIN PARALLEL OR PERPENDICULAR ONLY) AND SHALL MAINTAIN MINIMUM SIX (6) FEET HORIZONTAL SEPARATION EDGE TO EDGE FROM COMED FACILITIES.
  - PERTAINING SPECIFICALLY TO THE 200' 12" SANITARY SEWER WITH 24" STEEL CASING, PLEASE NOTE THE PROPOSED SEWER WILL BE CROSSING A CONCRETE DUCT PACKAGE AT APPROXIMATE STATION 405+65. THE DEPTH OF THE DUCT PACKAGE IS TO BE DETERMINED BY PETITIONER AND MINIMUM VERTICAL CLEARANCE OF 1.5' IS REQUIRED BETWEEN THE CASING AND THE DUCT. IF THE DUCT PACKAGE IS UNDERMINED SUPPORT OF THE DUCT IS REQUIRED.

**EASEMENT REQUIREMENTS**

- THE PROPERTY MAY BE USED ONLY FOR THE STATED PURPOSE OF THE TEMPORARY STORAGE OF NEW SEWER AND CASING PIPE AND INSTALLATION AND MAINTENANCE OF A SANITARY SEWER, AS SUBMITTED IN THE IMPROVEMENT PLANS FOR SCIENTEL SOLUTIONS EOLA ROAD SITE, DATED DECEMBER 2018. ANY REVISION TO THE PLANS MUST BE SUBMITTED TO COMED FOR REVIEW AND APPROVAL.
- NO HAZARDOUS MATERIALS, INCLUDING PETROLEUM PRODUCTS, MAY BE STORED, USED, OR TRANSFERRED ON COMED PROPERTY.
- CITY OF AURORA WILL BE HELD RESPONSIBLE FOR FUTURE MAINTENANCE OF THE SANITARY SEWER. COMED ANTICIPATES THAT ANY LEAKS, SPILLS, OVERFLOW, OR SIMILAR WILL BE ADDRESSED BY THE GRANTEE AT THEIR EXPENSE, INCLUDING ANY ADVERSE IMPACTS TO THE SURROUNDING COMED RIGHT OF WAY.
- IN THE EVENT OF A LEAK/SPILL ON COMED PROPERTY, GRANTEE MUST NOTIFY COMED WITHIN 24 HOURS AND PROVIDE A WRITTEN REPORT WITHIN 5 BUSINESS DAYS.
- CITY OF AURORA IS NOT PERMITTED TO CHANGE THE GRADING OF THE PROPERTY WITHOUT PRIOR AUTHORIZATION FROM COMED. THIS INCLUDES ACTIVITIES OF ADDING GRAVEL OR OTHER FILL-IN ACTIVITIES TO THE SURFACE OF COMED PROPERTY.
- CITY OF AURORA IS RESPONSIBLE FOR ALL POTENTIAL DRAINAGE IMPACTS WITHIN THE EASEMENT AREA FOR THE DURATION OF THE EASEMENT.
- CITY OF AURORA SHALL PROVIDE A KMZ FILE OF THE NEWLY INSTALLED SANITARY SEWER ON COMED OWNED PROPERTY.

**CONSTRUCTION PROJECT REQUIREMENTS**

- ALL CONSTRUCTION EQUIPMENT MUST BE FREE OF LEAKS AND ANY LEAKS OF OILS OR CHEMICALS THAT OCCUR MUST BE CLEANED UP AND REPORTED TO THE APPROPRIATE AGENCIES AS NEEDED.
- DAILY EQUIPMENT INSPECTIONS MUST BE CONDUCTED BY THE CONTRACTOR TO VERIFY PROPER WORKING CONDITION BEFORE EQUIPMENT USE ON COMED PROPERTY. WRITTEN RECORDS OF EQUIPMENT INSPECTIONS MUST BE AVAILABLE TO COMED UPON REQUEST.
- CONCRETE WASHOUT ACTIVITIES ARE NOT PERMITTED ON COMED PROPERTY.
- A SPILL KIT OF APPROPRIATE SIZE MUST BE PRESENT AND ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES ON COMED PROPERTY.
- IN THE EVENT THAT DRAIN TILES ARE DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE, AS APPROPRIATE, THE DAMAGED DRAIN TILES AND ACCEPT RESPONSIBILITY FOR ANY ADVERSE DRAINAGE ISSUES AND RELATED DAMAGES THAT MAY ARISE.

**EXCAVATION, SPOILS AND MATERIALS**

- IF THE PROJECT REQUIRES REMOVAL OF SOIL OR WASTE FROM COMED PROPERTY, THIS MUST BE MANAGED BY THE COMED APPROVED ENVIRONMENTAL CONTRACTOR OF CHOICE (EIOC) AND TAKEN TO A COMED APPROVED DISPOSAL FACILITY. CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) DISPOSAL IS NOT PERMITTED.
- GRADING OF EXCESS SOIL IS NOT PERMITTED ON COMED PROPERTY.
- IF THE PROJECT REQUIRES ADDITIONAL SOIL AND GRAVEL, ONLY CERTIFIED "CLEAN" FILL SHALL BE USED. THE SOURCE OF THE CLEAN FILL MUST BE APPROVED BY COMED. FOR APPROVAL, THE FOLLOWING CONDITIONS MUST BE MET.
  - A CERTIFICATE OF VIRGIN MATERIAL MUST BE OBTAINED FROM THE SOURCE OF ANY AGGREGATE MATERIAL.
  - SOILS MUST BE CERTIFIED CLEAN BY THE SOURCE AND/OR ANALYZED EVERY 500 CUBIC YARDS FOR TOTAL CONCENTRATIONS OF THE COMPREHENSIVE SUITE OF PARAMETERS LISTED IN TITLE 35 ILLINOIS ADMINISTRATIVE CODE (35 IAC) PART 740, SITE REMEDIATION PROGRAM (SRP) APPENDIX A, TARGET COMPOUND LIST (TCL), AND VERIFIED TO MEET THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S (IEPA'S) TIERED APPROACH TO CORRECTIVE OBJECTIVES (TACO) RULES (35 IAC PART 742), TIER 1 RESIDENTIAL REMEDIATION OBJECTIVES (ROS).
- ALL SOIL MUST BE MANAGED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL GUIDELINES.
- NO CONSTRUCTION DEBRIS, SOIL, FILL MATERIAL, OR SPOILS MAY BE STORED ON COMED PROPERTY DURING OR POST CONSTRUCTION, UNLESS A SPECIFIC REQUEST IS REVIEWED AND APPROVED.
- ENVIRONMENTAL SAMPLING IS NOT PERMITTED ON COMED PROPERTY WITHOUT WRITTEN APPROVAL AND GUIDANCE BY COMED.

**WETLANDS REQUIREMENTS**

- DISCHARGING FROM EXCAVATION DEWATERING ACTIVITIES ON COMED PROPERTY IS NOT PERMITTED WITHIN 100 FEET OF A WETLAND OR WATERWAY.
- COMED RECOMMENDS THE USE OF TIMBER OR COMPOSITE MATTING OVER WETLAND AREAS THAT WILL BE CROSSED DURING CONSTRUCTION AND MAINTENANCE ACTIVITIES.
- WHERE WETLANDS ARE IDENTIFIED ON COMED PROPERTY, COMED REQUIRES THAT ENVIRONMENTAL OVERSIGHT OF THE PROJECT AND INSPECTIONS ARE CONDUCTED, AT THE CONTRACTOR EXPENSE, BY A CONTRACTOR THAT IS APPROVED BY COMED AFTER REVIEW OF QUALIFICATIONS. WRITTEN RECORDS OF ENVIRONMENTAL INSPECTIONS MUST BE AVAILABLE TO COMED UPON REQUEST.

**CONDITION OF PROPERTY**

- CONTRACTOR MUST PROVIDE FULL RESTORATION OF THE SITE TO THE ORIGINAL CONDITION WHEN THE PROJECT IS COMPLETE, INCLUDING SEEDING AS NECESSARY.
- THE CONTRACTOR MUST PROVIDE DOCUMENTATION (INCLUDING PHOTOGRAPHS) THAT THE PROPERTY IS RETURNED TO ITS ORIGINAL CONDITION AFTER COMPLETION OF THE PROJECT AND RESTORATION.

**COMED ENVIRONMENTAL**

**COMED TRANSMISSION**

- TINA KOWALCZYK AT 1 +224-244-1826 WILL BE A SINGLE POINT OF CONTACT DURING THE DURATION OF THE CONSTRUCTION PERIOD. PLEASE CONTACT OF 48 HOURS PRIOR TO THE START AND UPON COMPLETION OF THE PROJECT.
- SUBSURFACE UTILITY INSTALLATIONS AND EXCAVATIONS SHALL BE A MINIMUM OF FIFTEEN (15) FEET AWAY FROM ANY TRANSMISSION STRUCTURE. THE PETITIONER'S PLANS APPEAR TO ACCOMMODATE THIS. IN ADDITION, EQUIPMENT AND MATERIALS SHOULD NOT ENTER INTO THE FIFTEEN-FOOT BUFFER AREA.
- THE CONTRACTOR SHOULD NOT LEAVE TRENCHES OPEN OVERNIGHT. ALSO, THE GRANTEE CANNOT PLACE OBSTRUCTIONS ON COMED PROPERTY THAT WILL RESTRICT OUR ABILITY TO ACCESS, OPERATE AND MAINTAIN EXISTING AND FUTURE TRANSMISSION AND DISTRIBUTION FACILITIES.
- THE CONTRACTOR CANNOT LEAVE CONSTRUCTION EQUIPMENT AND MATERIALS ON COMED PROPERTY WHEN THERE IS NO WORK ACTIVITY.
- THE CITY OF AURORA'S FACILITIES ON COMED'S PROPERTY SHOULD BE DESIGNED FOR HS20 AXLE LOADING PER AASHTO HIGHWAY SPECIFICATIONS IN ORDER TO WITHSTAND COMED CONSTRUCTION TRAFFIC.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY RESEARCH AND IMPLEMENTATION OF CATHODIC PROTECTION OR MITIGATION OF INDUCED VOLTAGE ON THE PROPOSED FACILITIES.
- IT IS RECOMMENDED THAT EXPOSED METALLIC PIPE AND EQUIPMENT BE GROUNDED ACCORDING TO THE GRANTEE AND/OR ITS CONTRACTOR'S SAFETY STANDARD(S) TO PROTECT AGAINST INDUCED VOLTAGES.
- WHEN WORKING IN THE VICINITY OF COMED'S ELECTRIC TRANSMISSION LINES DURING THE INSTALLATION, OSHA REQUIRES MINIMUM FIFTEEN (15) FEET WORKING CLEARANCE DISTANCE MUST BE MAINTAINED BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED ON THE EQUIPMENT FOR THE CONTRACTOR AND COMED'S EXISTING 138,000 VOLT ELECTRIC TRANSMISSION CONDUCTORS, AND A MINIMUM TWENTY (20) FEET WORKING CLEARANCE DISTANCE MUST BE MAINTAINED BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED ON THE EQUIPMENT FOR THE GRANTEE'S CONTRACTOR AND COMED'S EXISTING 345,000 VOLT ELECTRIC TRANSMISSION CONDUCTORS. UNDER NO CIRCUMSTANCES, SHOULD TRUCK BEDS BE RAISED UNDERNEATH COMED TRANSMISSION LINES.
- COMED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO THE CITY OF AURORA'S FACILITIES THAT MAY OCCUR DUE TO THE COMED'S RIGHT TO ACCESS OUR PROPERTY TO OPERATE AND MAINTAIN NEW AND EXISTING TRANSMISSION AND DISTRIBUTION FACILITIES.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR MUST REMOVE ANY EQUIPMENT, CONSTRUCTION DEBRIS AND MATERIAL FROM THE RIGHT-OF-WAY AND RESTORE ANY OTHER DISTURBED AREAS OF THE RIGHT-OF-WAY TO THEIR PRE-CONSTRUCTION CONDITION.

Printed: February 7, 2019 @ 8:38 AM By: Jim Schmidt - Job: 03 Notes & SOO (22x34)

COPYRIGHT © 2019 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
11	1/29/19	PER FOX METRO COMMENTS
10	1/23/19	PER COMED COMMENTS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**GENERAL NOTES AND**  
**SUMMARY OF QUANTITIES**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	<b>3</b> OF <b>25</b>

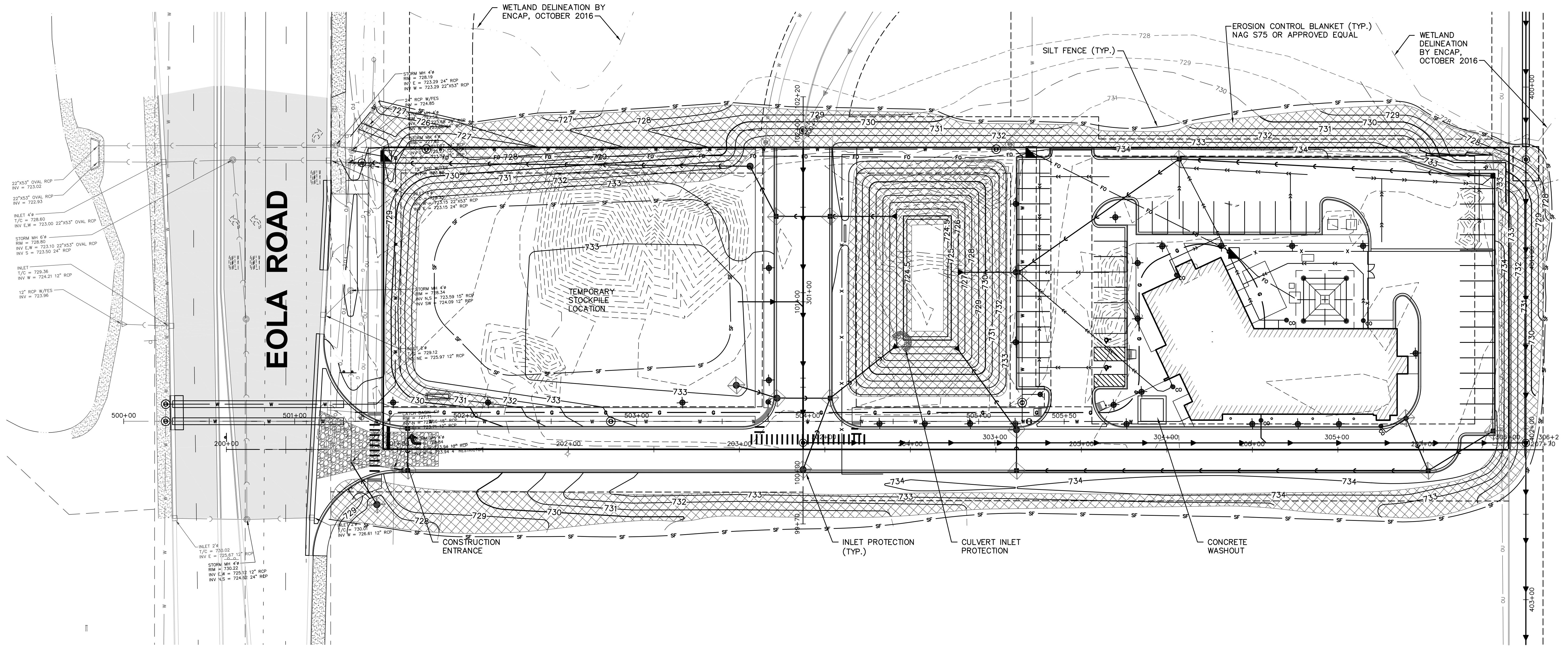
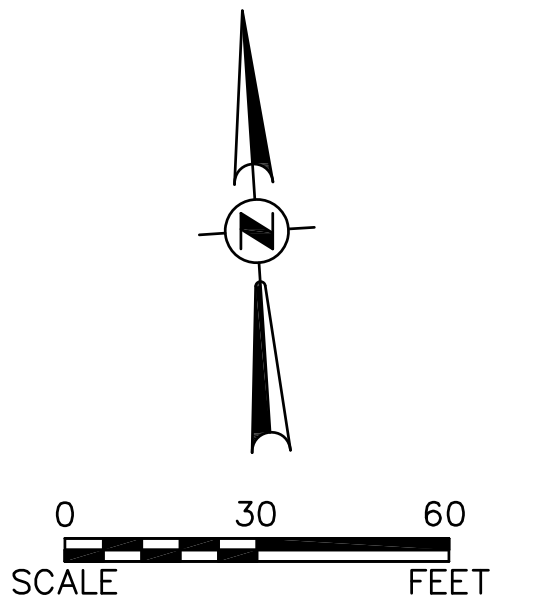
Path: \\S05KPROJ\16039\DWG\FINAL\_ENG\16039-COVER

**KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT NOTES:**

- A) UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL LATEST EDITION.
- B) THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- C) A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- D) PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW BY THE KDSWCD.
- E) THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
- F) DURING DEWATERING OPERATIONS, WATER WILL BE FILTERED OR PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO STREAMS, WETLANDS, FIELD TILES, OR STORMWATER STRUCTURES IS PROHIBITED.
- G) IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS."

**NOTES:**

- 1. ALL DISTURBED AREAS SHALL BE SEEDED UPON COMPLETION OF IMPROVEMENTS.
- 2. DETENTION SIDE SLOPES AND ALL 4:1 OR GREATER SLOPES SHALL BE COVERED IN EROSION CONTROL BLANKET.
- 3. DETENTION BASIN SLIDE SLOPES AND BOTTOM TO BE RESTORED WITH NATIVE PRAIRIE GRASS MIX.



Printed: December 14, 2018 @ 9:14 AM By: Kris Pung - Tab: 04 Erosion (22-534)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**EROSION AND SEDIMENTATION CONTROL PLAN**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-EROSION
SHEET	<b>4</b> OF <b>25</b>

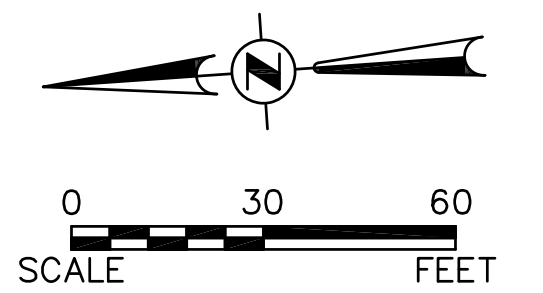
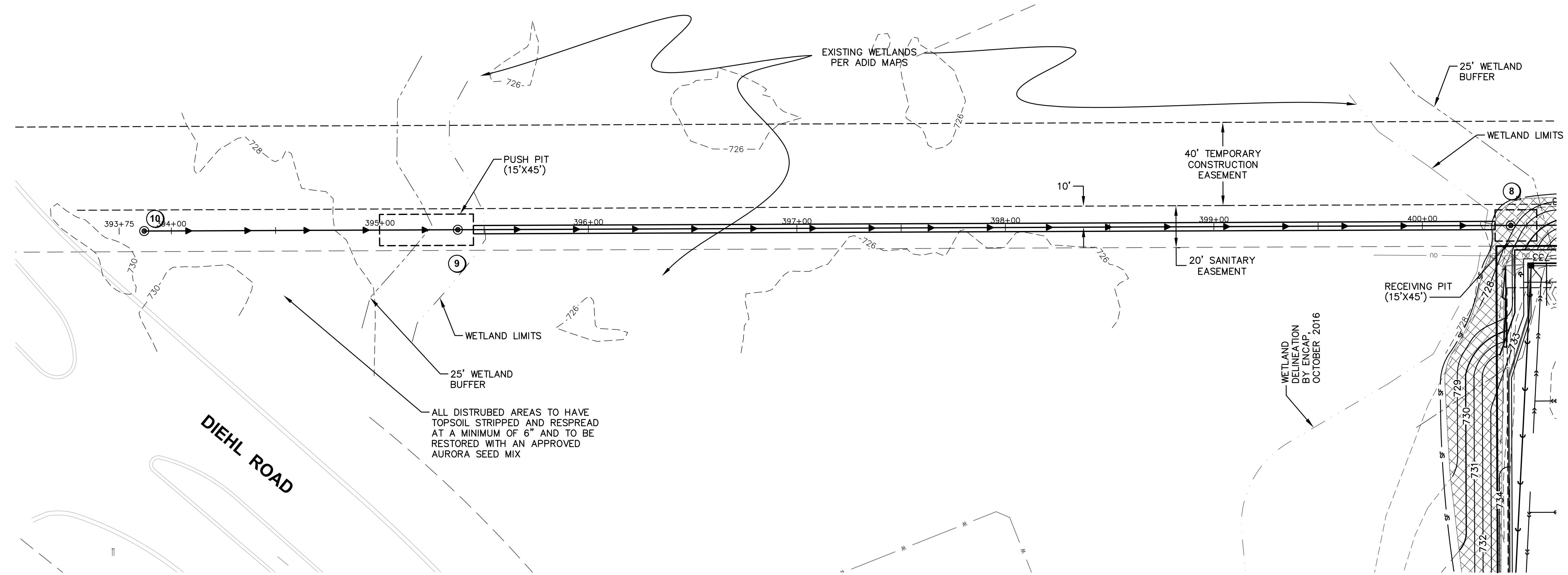
Path: H:\SUSKPROJ\16039\DWG\FINAL\_ENG\16039-EROSION

**KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT NOTES:**

- A) UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL LATEST EDITION.
- B) THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- C) A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- D) PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW BY THE KDSWCD.
- E) THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
- F) DURING DEWATERING OPERATIONS, WATER WILL BE FILTERED OR PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO STREAMS, WETLANDS, FIELD TILES, OR STORMWATER STRUCTURES IS PROHIBITED.
- G) IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS."

**NOTES:**

- 1. ALL DISTURBED AREAS SHALL BE SEEDED UPON COMPLETION OF IMPROVEMENTS.
- 2. DETENTION SIDE SLOPES AND ALL 4:1 OR GREATER SLOPES SHALL BE COVERED IN EROSION CONTROL BLANKET.
- 3. DETENTION BASIN SLIDE SLOPES AND BOTTOM TO BE RESTORED WITH NATIVE PRAIRIE GRASS MIX.



NOTE:  
THE 12" SANITARY SEWER FROM SAN. MH 10 TO SAN MH 8 IS PART OF PHASE 2 OF THE PROJECT AND WILL BE CONSTRUCTED AT A LATER DATE.

Printed: December 14, 2018 @ 9:40 AM By: Kris Pung - Job: 04A Erosion (22&34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CGA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	3/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**EROSION AND SEDIMENTATION**  
**CONTROL PLAN**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-EROSION
SHEET	<b>4A</b> OF <b>25</b>

Path: H:\SUSKPROJ\16039\DWG\FINAL\_ENG\16039-EROSION

**STORMWATER POLLUTION PREVENTION PLAN**

A COPY OF THIS PLAN, ALONG WITH ALL INSPECTION REPORTS, WILL BE KEPT AT THE SITE AT ALL TIMES. THE PERMITTEE SHALL RETAIN COPIES OF STORMWATER POLLUTION PREVENTION PLANS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THE PERMIT COVERAGE EXPIRES OR IS TERMINATED.

**SITE DESCRIPTION:**

PROJECT NAME AND LOCATION:  
SCIENTEL SOLUTIONS, 245 N. EOLA ROAD, AURORA, DUPAGE COUNTY, IL.  
PROJECT DESCRIPTION:  
CONSTRUCTION OF SCIENTEL SOLUTIONS HEADQUARTERS. THIS PROJECT WILL INCLUDE MASS GRADING, POND EXCAVATION, BUILDING CONSTRUCTION, ROADWAY AND PARKING LOT CONSTRUCTION, INSTALLATION OF UTILITIES, EROSION CONTROL AND STABILIZATION MEASURES.

TOTAL ON-SITE AREA = 2.68 ACRES

TOTAL AREA DISTURBED = 6.88 ACRES INCLUDES OFFSITE AREA

RUNOFF COEFFICIENT OF SITE AFTER CONSTRUCTION = 0.80

SOILS: 152A – DRUMMER SILTY CLAY LOAM, HSG B/D  
541B – GRAYMONT SILT LOAM, HSG C

RECEIVING WATERS: INDIAN CREEK

EXISTING SITE CONDITIONS: UNDEVELOPED SCRUB BRUSH COVER.

ADJACENT/OFFSITE AREAS: PARTIALLY DEVELOPED INDUSTRIAL DISTRICT AND FARM LAND.

REFER TO IMPROVEMENT PLANS FOR ADDITIONAL SITE INFORMATION.

**EROSION AND SEDIMENT CONTROLS**

REFER TO THE IMPROVEMENT PLANS FOR SCIENTEL SOLUTIONS EOLA ROAD SITE, AND THIS SWPPP.

**STABILIZATION PRACTICES:**

ANY AREAS WITHIN OR ADJACENT TO THE SITE PERIMETER THAT HAVE BEEN DISTURBED DURING THE COURSE OF CONSTRUCTION WILL BE STABILIZED PRIOR TO PROJECT COMPLETION.

**STRUCTURAL PRACTICES:**

- SILT FENCE SHALL BE INSTALLED ALONG THE DOWNSTREAM PERIMETER OF THE SITE AS DIRECTED ON THE IMPROVEMENT PLANS.
- INLET FILTERS SHALL BE INSTALLED IN EXISTING DRAINAGE STRUCTURES PRIOR TO ANY GROUND DISTURBING ACTIVITIES.
- INLET FILTERS SHALL BE INSTALLED IN PROPOSED DRAINAGE STRUCTURES AS SOON AS THEY ARE INSTALLED.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE ESTABLISHMENT OF PROPOSED GRADES AT THE ENTRANCE LOCATION.

**STORM WATER MANAGEMENT**

REFER TO THE IMPROVEMENT PLANS FOR SCIENTEL SOLUTIONS EOLA ROAD SITE AND THE STORMWATER MANAGEMENT CALCULATIONS INCLUDED IN THE DUPAGE COUNTY STORMWATER PERMIT APPLICATION FOR ADDITIONAL INFORMATION

**RUNOFF:**

THE SITE IS URBAN. ROOF DRAINS WILL BE DIRECTED TO THE STORM SEWERS AND THE SIDEWALKS WILL BE DIRECTED TO THE STORMS SEWER.

**DETENTION:**

A WETLAND BOTTOM POND IS PROPOSED TO PROVIDE STORMWATER DETENTION BASED ON CITY OF AURORA REQUIREMENTS.

**VELOCITY DISSIPATION**

THERE WILL BE NO POINT SOURCE FLOWS EXITING THE SITE OVERLAND.

**WASTE DISPOSAL**

ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE SITE FOR DISPOSAL IN PERMITTED DISPOSAL FACILITIES. THE PROJECT SITE WILL BE KEPT CLEAR OF ALL HUMAN AND CONSTRUCTION DEBRIS. NO BUILDING MATERIALS, GAS OR OIL SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE. A SECURELY LIDDED DUMPSTER WILL BE PROVIDED FOR STANDARD SOLID WASTE.

HAZARDOUS WASTE WILL BE DISPOSSED OF AS SPECIFIED BY THE CITY OF AURORA, THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, OR THE MANUFACTURER OF THE MATERIAL, WHICH EVER IS STRICTER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL HAZARDOUS WASTE PRODUCED AS A PART OF THIS CONSTRUCTION PROJECT.

SANITARY WASTE WILL BE COLLECTED IN PORTABLE UNITS AND DRAINED AS SPECIFIED BY THE CITY OF AURORA AND THE FOX METRO WATER RECLAMATION DISTRICT.

ANY SPILLED OIL, GAS, OR OTHER CONSTRUCTION MATERIAL WILL BE CONTAINED AND CLEANED IMMEDIATELY. CONTAMINATED SOIL WILL BE DISPOSED OF IN AN APPROVED MANNER AT A LICENSED LANDFILL.

A SINGLE CONCRETE WASHOUT AREA WILL BE DESIGNATED BY THE CONTRACTOR FOR USE DURING THE DURATION OF THE PROJECT. CONCRETE WASHOUT SHOULD BE CONTAINED AT ALL TIMES. WASHOUT MATERIAL SHOULD NOT BE ALLOWED TO ENTER STORM SEWER OR LEACH INTO THE SOIL UNDER ANY CIRCUMSTANCES. ANY WASTE SHOULD BE DISPOSSED OF PROPERLY AN THE LOCATION OF THE WASHOUT SHOULD BE DESIGNATED WITH PROPER SIGNAGE.

**OTHER REQUIREMENTS**

THE CITY OF AURORA SUBDIVISION REGULATIONS AND THE KANE COUNTY STORMWATER MANAGEMENT ORDINANCE WILL GOVERN ALL EROSION CONTROL AND STORMWATER MANAGEMENT OPERATIONS.

THE KANE DUPAGE SOIL AND WATER CONSERVATION DISTRICT WILL INSPECT THE EROSION CONTROL MEASURES.

STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF THE STABILIZATION WORK IN THE AREA.

NO FUEL OR OIL WILL BE STORED ON-SITE WITHOUT PROPER CONTAINMENT AND WRITTEN PERMISSION FROM THE CITY OF AURORA.

THE CONTRACTOR WILL PREVENT OFF-SITE TRACKING OF SEDIMENTS. IF THE STABILIZED CONSTRUCTION ENTRANCE IS NOT SUFFICIENT, FURTHER MEASURES MUST BE IMPLEMENTED. ANY SEDIMENT LEFT ON THE PUBLIC ROADWAY WILL BE CLEANED OFF EVERY NIGHT.

DUST CONTROL, IF DEEMED NECESSARY BY THE CITY ENGINEER, WILL BE DONE BY MEANS OF A WATER TRUCK SPRAYING WATER ON THE SURFACE OF THE SITE.

STOCKPILES OF SOIL OR OTHER BUILDING MATERIALS SHOULD NOT BE LOCATED IN AREAS WITH HIGH POTENTIAL FOR CONTRIBUTION SEDIMENTS TO STORMWATER FACILITIES.

**NON-STORMWATER DISCHARGES**

IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THIS SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER MAIN AND FIRE HYDRANT FLUSHING.
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED)
- UNCONTAMINATED GROUND AND SURFACE WATER FROM DEWATERING EXCAVATIONS AND DETENTION BASINS
- DUST CONTROL WATER

**SCHEDULE OF CONSTRUCTION**

- INSTALL SILT FENCE AND EROSION CONTROL MEASURES.
- PAVEMENT, TREE, AND MISC. REMOVAL
- PERFORM MASS GRADING OF SITE AND STORMWATER MANAGEMENT POLICIES.
- INSTALL FURTHER EROSION CONTROL MEASURES AS NECESSARY INCLUDING TEMPORARY SEEDING.
- INSTALL UTILITIES AND CONSTRUCT ROADWAYS AND PARKING LOT.
- INSTALL FURTHER EROSION CONTROL MEASURES AS NECESSARY INCLUDING TEMPORARY SEEDING.
- CONSTRUCT BUILDING.
- FINISH REMAINING RESTORATION W/ PERMANENT SEEDING.

**MAINTENANCE AND INSPECTION PROCEDURES**

THE GENERAL CONTRACTOR FOR THIS PROJECT IS RESPONSIBLE FOR MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES IN GOOD AND EFFECTIVE OPERATING CONDITIONS.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL REGULAR INSPECTIONS REQUIRED BY THE NPDES GENERAL PERMIT #2 INCLUDING RECORDING AND KEEPING A RECORD OF EACH INSPECTION. THIS PROCESS WILL CONTINUE UNTIL FINAL STABILIZATION IS ACHIEVED AND A NOTICE OF TERMINATION IS RECEIVED BY THE OWNER. INSPECTIONS WILL BE PERFORMED AND RECORDED BY QUALIFIED INDIVIDUALS TRAINED BY THE GENERAL CONTRACTOR AT LEAST ONCE EVERY WEEK AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER.

**MAINTENANCE AND INSPECTION PROCEDURES (CONT.)**

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.

BASED ON THE RESULTS OF THE INSPECTIONS, MODIFICATIONS NECESSARY SHALL BE IMPLEMENTED WITHIN 7 DAYS OF THE INSPECTION.

ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. ANY NECESSARY REPAIRS WILL BE INITIATED IMMEDIATELY.

SEDIMENT BUILDUP WILL BE REMOVED FROM SILT FENCES WHEN IT HAS REACHED 1/3 THE HEIGHT OF THE FABRIC.

SEDIMENT BUILDUP WILL BE REMOVED FROM OTHER EROSION CONTROLS AS NEEDED TO MAINTAIN STORMWATER FLOW THROUGH THE SITE AND AVOID SEDIMENT FROM BYPASSING THE EROSION CONTROLS.

EROSION CONTROL MEASURES WILL BE REPAIRED, MAINTAINED, OR INCREASED AT THE DIRECTION OF THE KANE/DUPAGE SOIL AND WATER CONSERVATION DISTRICT, THE CITY OF AURORA OR THE SCHOOL DISTRICT'S ENGINEER.

A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORT SHALL SUMMARIZE THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN TO SOLVE ANY PROBLEMS OBSERVED. THE INSPECTION REPORT SHALL BE SIGNED BY A QUALIFIED INDIVIDUAL PER NPDES GENERAL PERMIT NO. 2.

INSPECTION REPORTS SHALL BE RETAINED AS A PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS AFTER FINAL STABILIZATION AND A NOTICE OF DISCONTINUATION HAS BEEN SUBMITTED TO THE DEPARTMENT.

**NOTES:**

- INLET FILTERS SHALL BE CHECKED WEEKLY AND AFTER EACH 1/2 RAIN EVENT. INLET PROTECTION SHOULD BE CLEANED AND/OR REPAIRED AS OFTEN AS NECESSARY.
- DEBRIS FROM INLET FILTERS SHALL BE DISPOSSED OF IN A LANDFILL.
- INLET FILTERS SHALL REMAIN IN PLACE FOR THE DURATION OF THE CONSTRUCTION AND SHALL BECOME PROPERTY OF THE CITY OF AURORA.
- STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAT THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. STOCKPILES SHOULD BE LOCATED IN AREAS THAT DO NOT HAVE HIGH POTENTIAL FOR CONTRIBUTING SEDIMENTS TO STORMWATER FACILITIES.
- THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.

**CONTRACTOR'S CERTIFICATION**

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS A PART OF THIS CERTIFICATION.

GENERAL CONTRACTOR

COMPANY NAME

COMPANY ADDRESS

COMPANY PHONE NUMBER

PRINTED NAME AND TITLE

SIGNATURE

DATE

SUB-CONTRACTOR #1

SUB-CONTRACTORS RESPONSIBILITY

COMPANY NAME

COMPANY ADDRESS

COMPANY PHONE NUMBER

PRINTED NAME AND TITLE

SIGNATURE

DATE

USE ADDITIONAL SHEETS FOR ADDITIONAL SUB-CONTRACTORS. EACH SHEET WILL HAVE THE PROJECT NAME AND LOCATION AS DESCRIBED IN THE SITE DESCRIPTION ON THIS SHEET. EACH ADDITIONAL SUB-CONTRACTOR WILL PROVIDE THEIR RESPONSIBILITY, COMPANY NAME, ADDRESS AND PHONE NUMBER, PRINTED NAME AND TITLE, SIGNATURE AND DATE. THIS INFORMATION WILL BE KEPT WITH THIS PLAN.

**INLET PROTECTION – PAVED AREAS DROP-IN PROTECTION**

REFERENCE Project \_\_\_\_\_ Date \_\_\_\_\_  
Designed \_\_\_\_\_ Date \_\_\_\_\_  
Checked \_\_\_\_\_ Date \_\_\_\_\_  
Approved \_\_\_\_\_ Date \_\_\_\_\_

STANDARD DWG. NO. IUM-561D  
SHEET 1 OF 1  
DATE 01-11-11

**PIPE OUTLET TO FLAT AREA**

**PLAN**

**SECTION A-A**

NOTES:  
1. The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table 1 or 2, class 1, II or III.  
2. The rock riprap shall meet the IDOT requirements for the following gradation: RR \_\_\_\_\_, Quality \_\_\_\_\_.  
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE Project \_\_\_\_\_ Date \_\_\_\_\_  
Designed \_\_\_\_\_ Date \_\_\_\_\_  
Checked \_\_\_\_\_ Date \_\_\_\_\_  
Approved \_\_\_\_\_ Date \_\_\_\_\_

STANDARD DWG. NO. IL-610  
SHEET 1 OF 1  
DATE 9-15-93

**NRCS**  
Natural Resource Conservation Service

FOR PERMANENT SEEDING SEE GRADING PLAN  
TEMPORARY SEEDING

ALL TEMPORARY SEEDING SHALL BE INSTALLED PER THE ILLINOIS URBAN MANUAL

SEEDING MIXTURE

- SPRING OATS – 100 LBS/AC
- WINTER WHEAT – 100 LBS/AC
- SUDAGRASS – 100 LBS/AC

HYDROSEEDING – PER MANUFACTURER'S RECOMMENDATIONS, SEED MIX MUST BE APPROPRIATE FOR DATE OF APPLICATION  
IT IS PERMITTED TO APPLY SEED, FERTILIZER AND MULCH AT THE SAME TIME

MULCHING

ALL MULCH SHALL BE INSTALLED PER THE ILLINOIS URBAN MANUAL  
STRAW OR HAY MULCH – 2 TONS PER ACRE ANCHORED TO SOIL  
HYDRAULIC MULCH – 1 1/2 TONS PER ACRE APPLIED PER MANUFACTURER'S RECOMMENDATIONS, HYDRAULIC MULCH MUST BE SUITABLE FOR 4:1 SLOPES

SEEDING SCHEDULE	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TEMPORARY SEEDING AND MULCHING												
WINTER WHEAT												
SPRING OATS												
SUDAN GRASS												
MULCHING ONLY												

FERTILIZER MIXTURE FOR PROPOSED SEEDING AREAS

- NITROGEN (N) 120 LBS./AC.
- PHOSPHORUS (P) 52 LBS./AC. OR 120 LBS./AC. P<sub>2</sub>O<sub>5</sub>
- POTASSIUM (K) 100 LBS./AC. OR 120 LBS./AC. K<sub>2</sub>O

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**TEMPORARY SEEDING AND MULCHING INFORMATION & SCHEDULE**

Engineering Enterprises, Inc.  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
Phone: (630) 466-9350

SCALE N.T.S.  
DATE 8/24/94

FOLDER EE-SE

DRAWING NUMBER SI-03

ISSUED BY BLM

DATE 02/25/08

**INLET PROTECTION LOG TYPE**

NOT-TO SCALE

**SECTION**

NOTES:  
1. 2" x 2" nominal hardwood stakes, 4 foot minimum length, driven into ground approximately 18 inches, stakes driven a minimum width of 12 inches away from the drop inlet.  
2. Area inside the log, from edge of fabric to structure, must be stabilized with Erosion Control Blanket, Turf Reinforcement Mat, Geotextile 592 Table 2 Class 2 or CA-7 stone.  
3. The maximum distance between the stakes should be 4 feet.  
4. A maintenance schedule must maintain a sediment accumulation of less than 50% of the height of the log.

REFERENCE Project \_\_\_\_\_ Date \_\_\_\_\_  
Designed \_\_\_\_\_ Date \_\_\_\_\_  
Checked \_\_\_\_\_ Date \_\_\_\_\_  
Approved \_\_\_\_\_ Date \_\_\_\_\_

STANDARD DWG. NO. IUM-562  
SHEET 1 OF 1  
DATE 11-30-15

Plotted: December 14, 2018 @ 9:35 AM By: Kris Pung - Job: 05 SWPPP (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

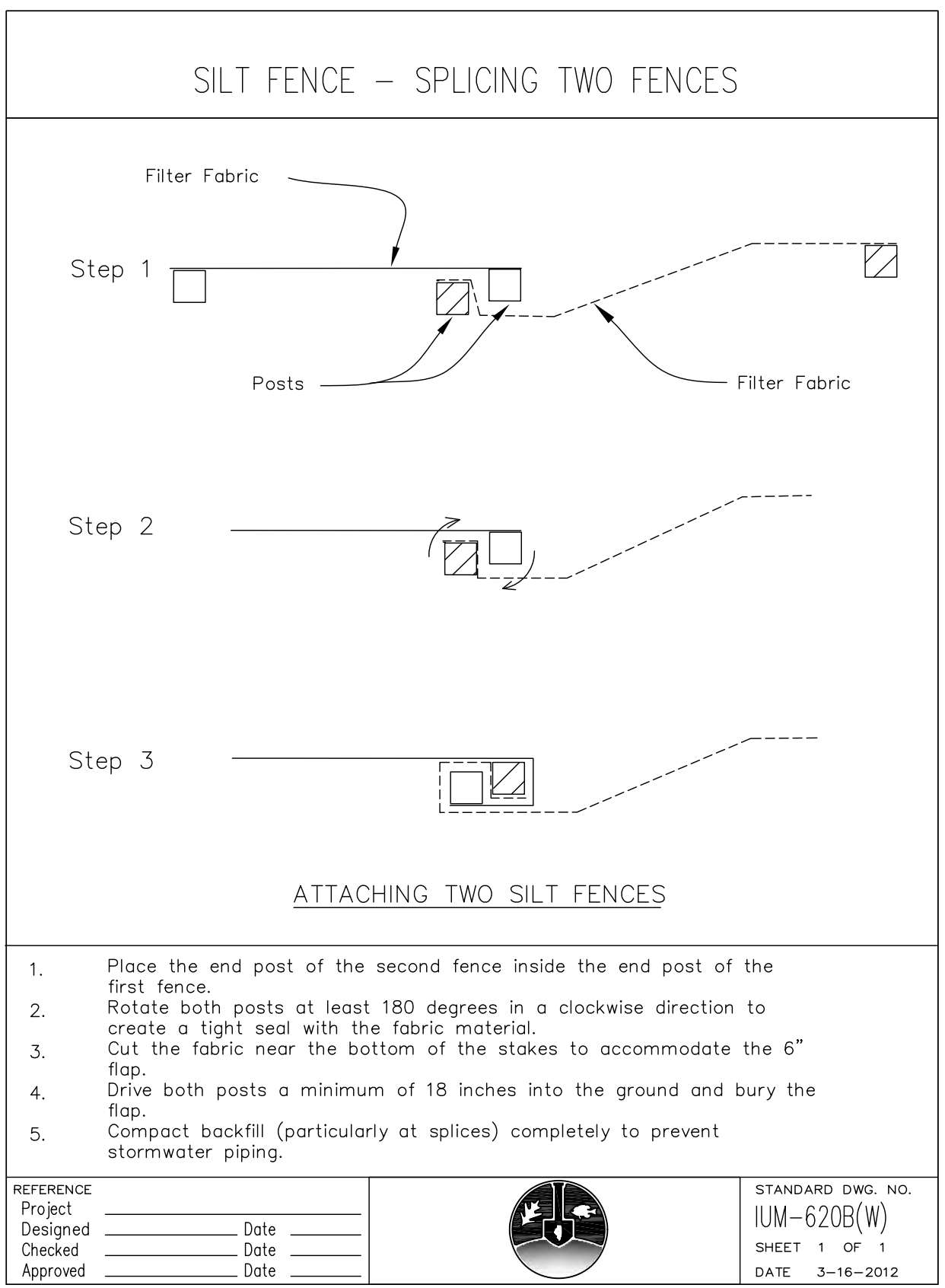
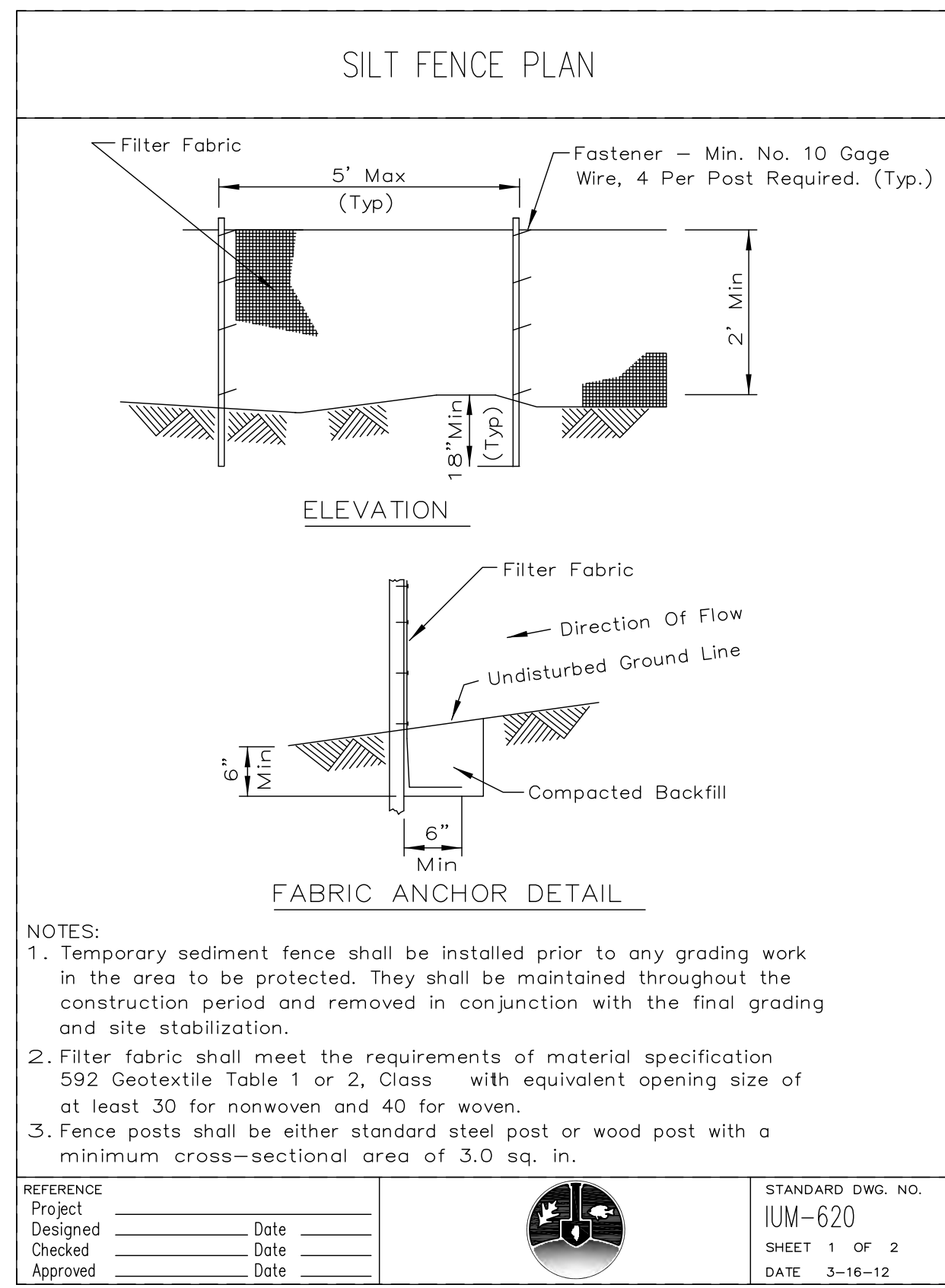
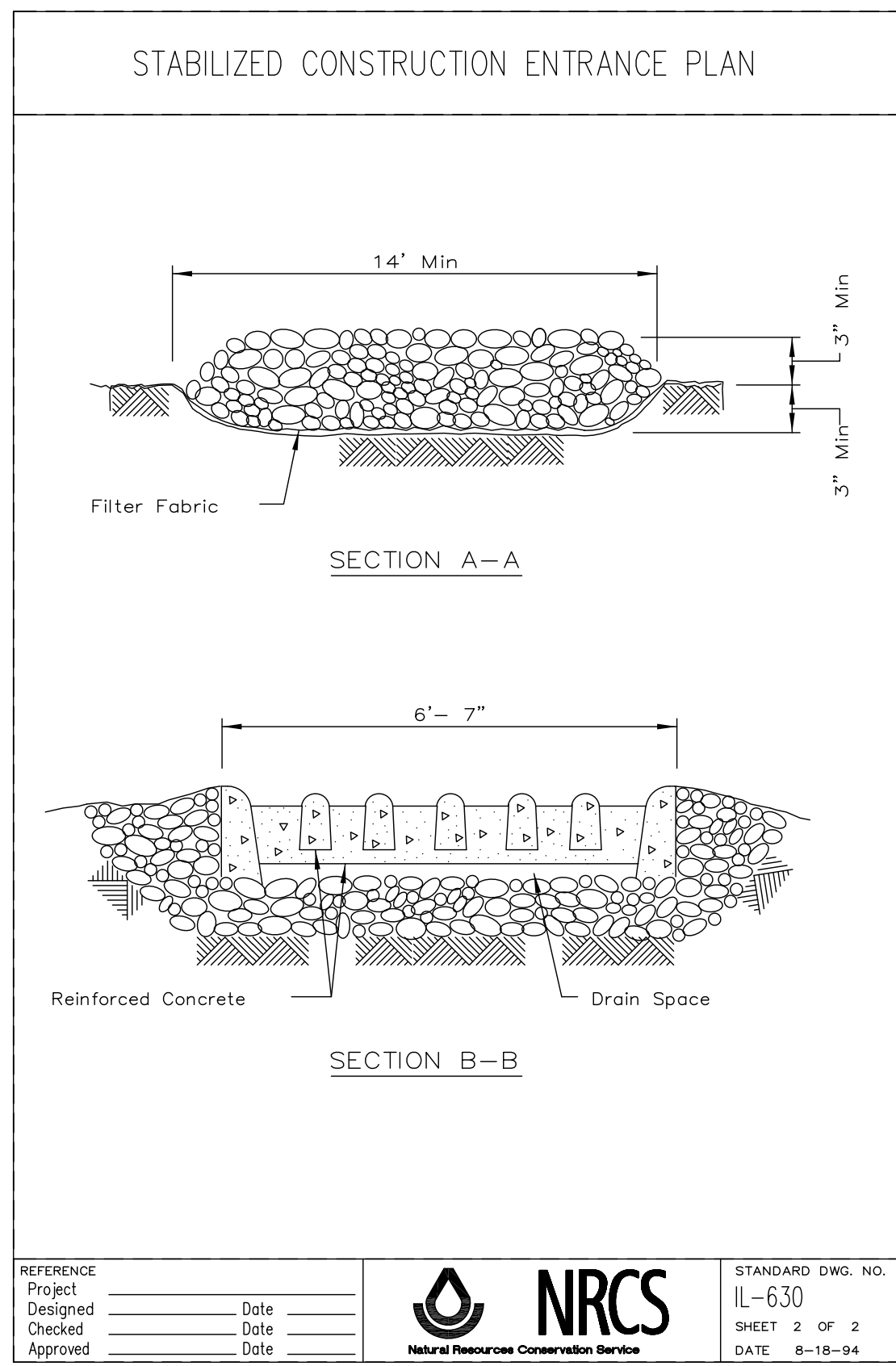
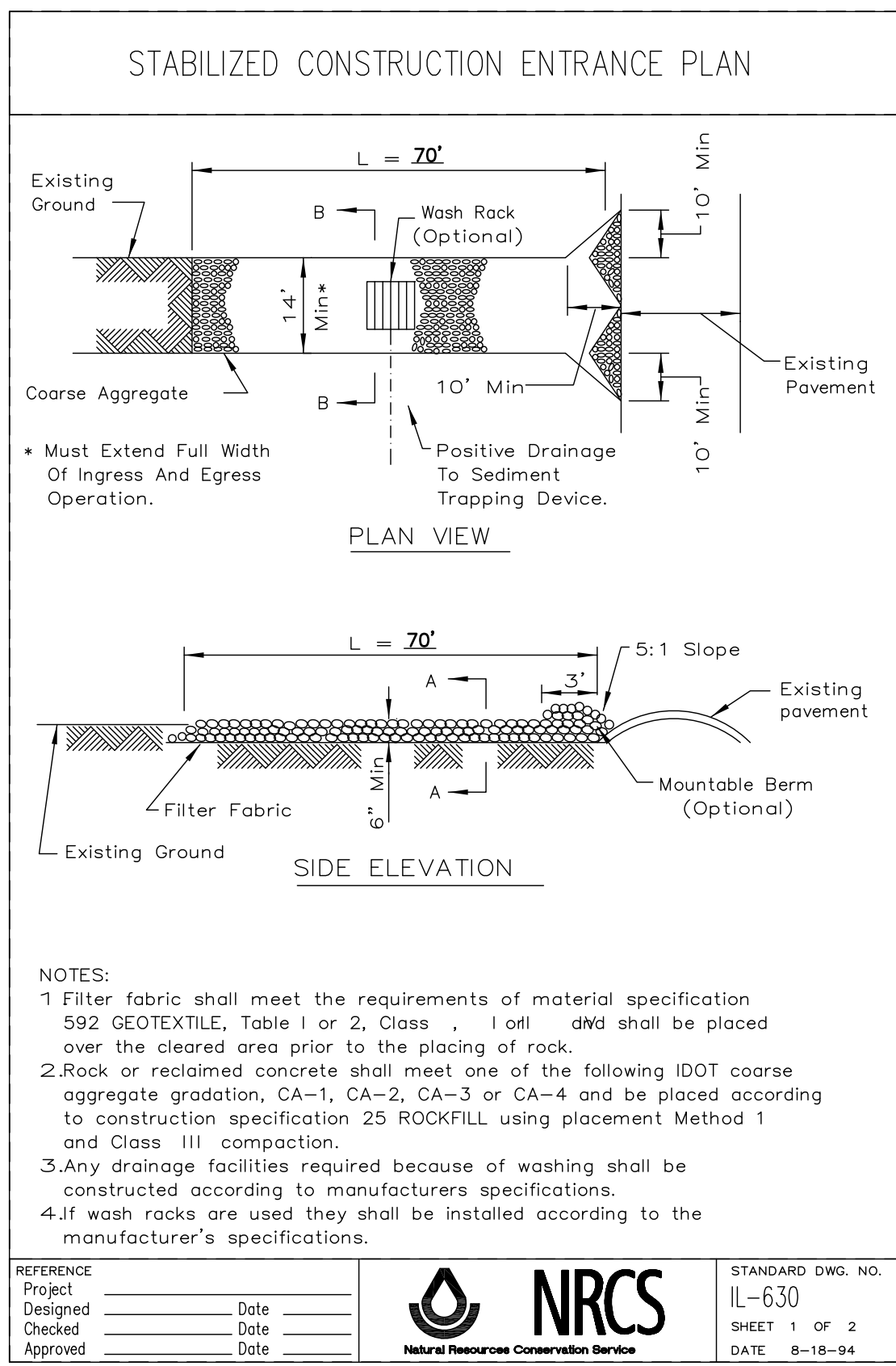
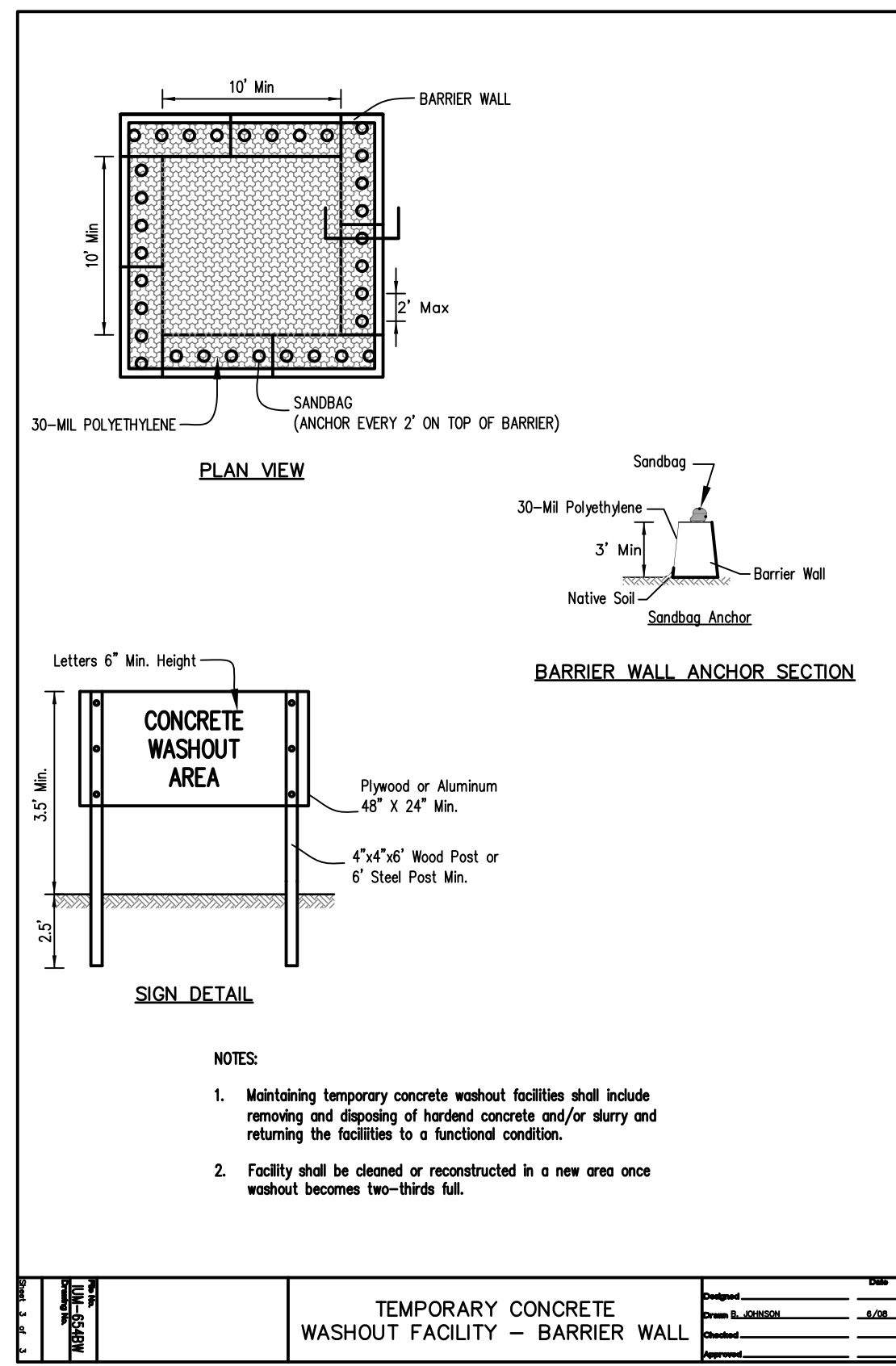
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER COA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	3/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

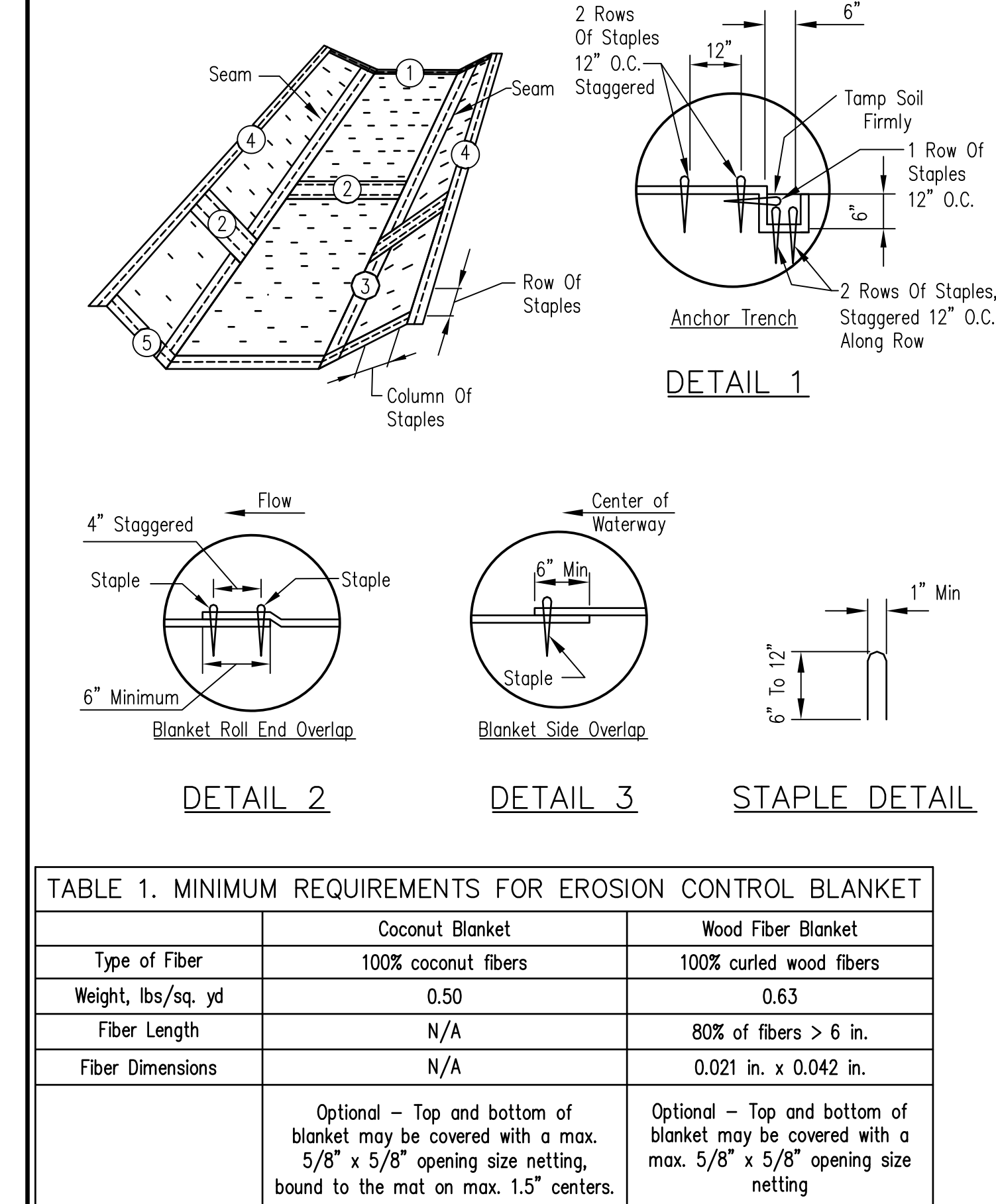
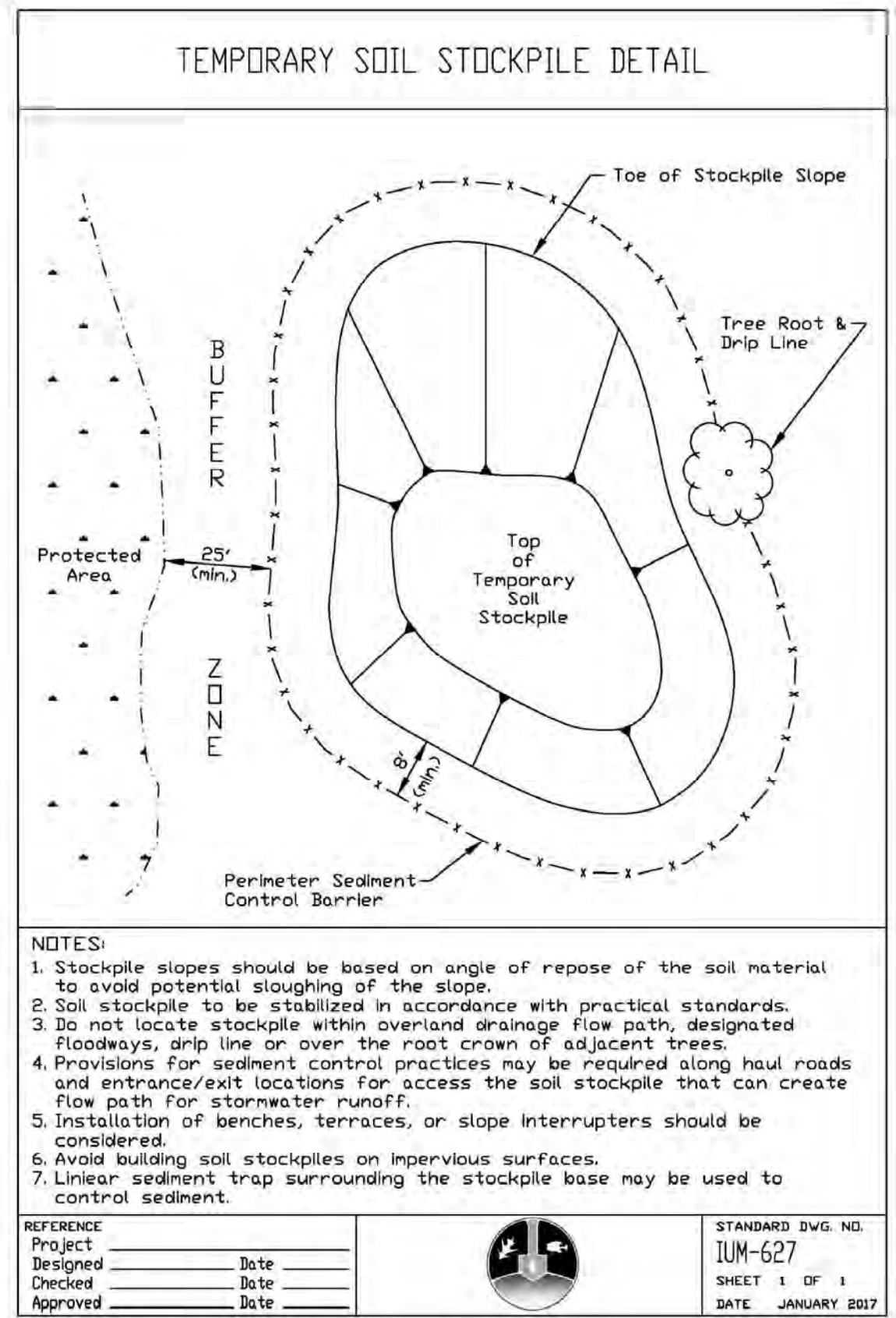
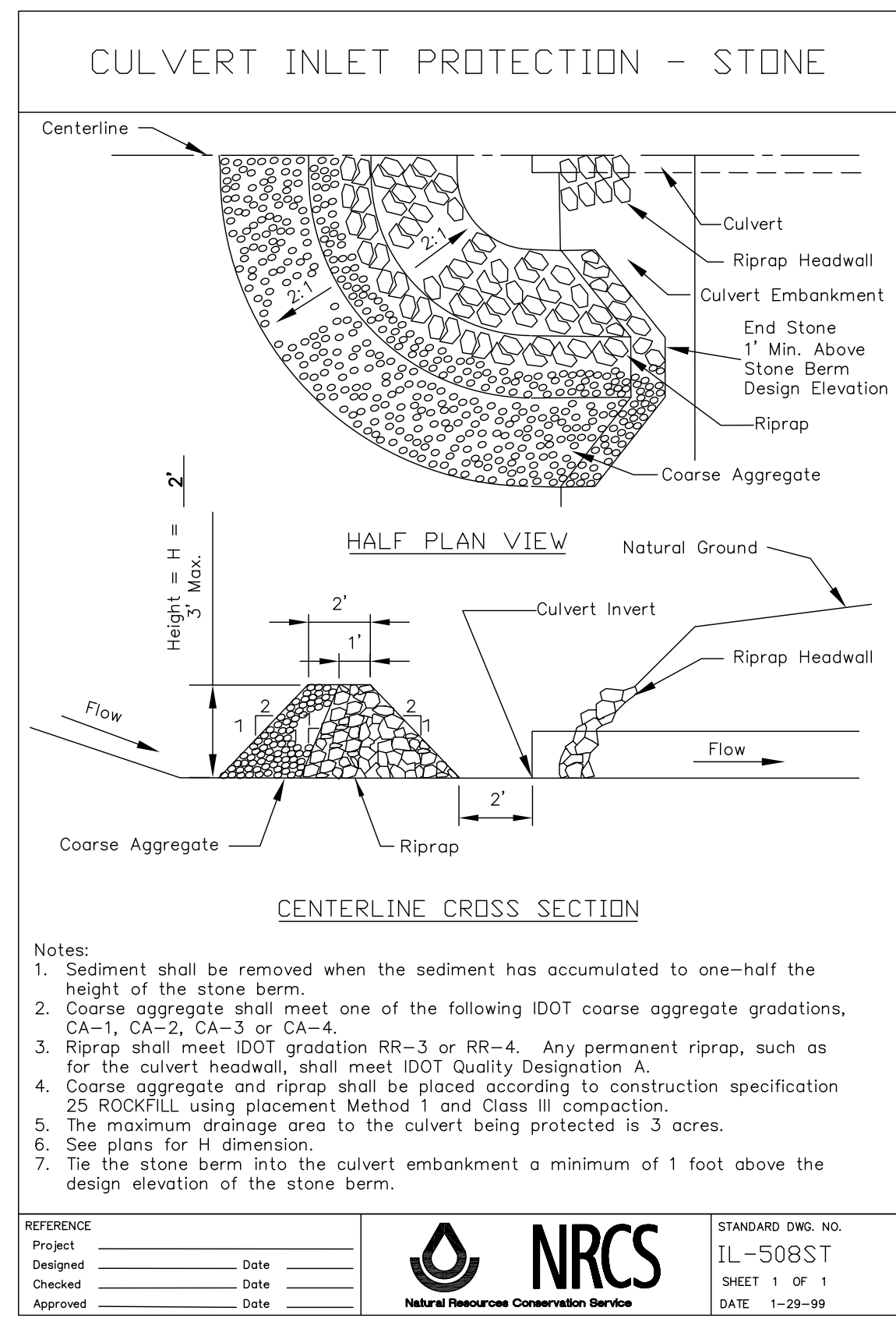
**STORM WATER POLLUTION PREVENTION PLAN**

DATE: DECEMBER 2018  
PROJECT NO: P16039  
FILE: P16039-COVER  
SHEET **5** OF **25**

Path: \\S05KPC03\APP\60339\DWG\FINAL\ENG\PP16039-COVER



- NOTES:**
1. MANUFACTURED CONCRETE WASHOUT STRUCTURE MAY BE USED IN LIEU OF THIS DETAIL.
  2. IF A MANUFACTURED CONCRETE WASHOUT STRUCTURE IS USED, IT MUST BE PROPERLY MAINTAINED PER THE MANUFACTURER'S RECOMMENDATIONS.



- NOTES:**
1. Install erosion control blanket (ECB) over waterway. Waterway Width \_\_\_\_\_ ft  
ECB width \_\_\_\_\_ ft  
length \_\_\_\_\_ ft  
Sta. \_\_\_\_\_ to \_\_\_\_\_
  2. The erosion control blanket shall consist of a machine produced mat of curled wood or coconut fibers, shall have an expected material life of at least 12 months, shall be new and unused, shall be furnished in rolls, and shall meet the minimum requirements stated in Table 1 below.
  3. Prepare soil prior to installing erosion control blanket, including seeding, fertilizing, and lime application.
  4. The erosion control blanket shall be placed in firm contact with the soil and not be allowed to bridge over surface irregularities. The blanket shall not be stretched.
  5. Start laying the blankets by rolling center blanket in the direction of flow, centered on the centerline of waterway. There shall not be an overlap of blankets at the center of the waterway.
  6. The erosion control blanket shall be anchored, overlapped, and stapled according to manufacturer's instructions. If no manufacturer's instructions are available, install the blanket as follows:
    - a. Staples shall be "U" shaped, 0.12 in diameter wire or greater (#11 gauge). See Staple Detail for dimensions.
    - b. Bury upstream end of blanket in a trench 6 inch wide by 6 inch deep and stapled in staggered rows across the width as shown in Detail 1.
    - c. For joining ends of rolls, overlap end of upslope blanket a minimum of 6 inches over downslope blanket (shingle style). Use a double row of staggered staples 4 inches apart, as shown in Detail 2.
    - d. Blankets on side slopes shall overlap a minimum 6 inches over the blanket below (shingle style). Staple overlap at 12 inch intervals. See Detail 3.
    - e. The outer edge along sides of the blanket shall be stapled every 12 inches. See Detail 4.
    - f. Staples are to be placed alternately in columns (in the direction of the waterway) 2 feet apart and in rows (across the waterway) 3 feet apart, throughout the area covered by erosion blanket.
    - g. Downstream (terminal) end of blanket shall be stapled with a double row of staggered staples 12 inches apart. See Detail 5.

Plotted: November 30, 2018 @ 1:25 PM By: Larry Nolan - Tab: 06 SWPPP Details (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**STORM WATER POLLUTION PREVENTION DETAILS**

DATE:	DECEMBER 2018
PROJECT NO.:	P16039
FILE:	P16039-COVER
SHEET	<b>6</b> OF <b>25</b>

**EROSION CONTROL BLANKET INSTALLATION DETAILS**

NRCSS  
Natural Resources Conservation Service  
United States Department of Agriculture

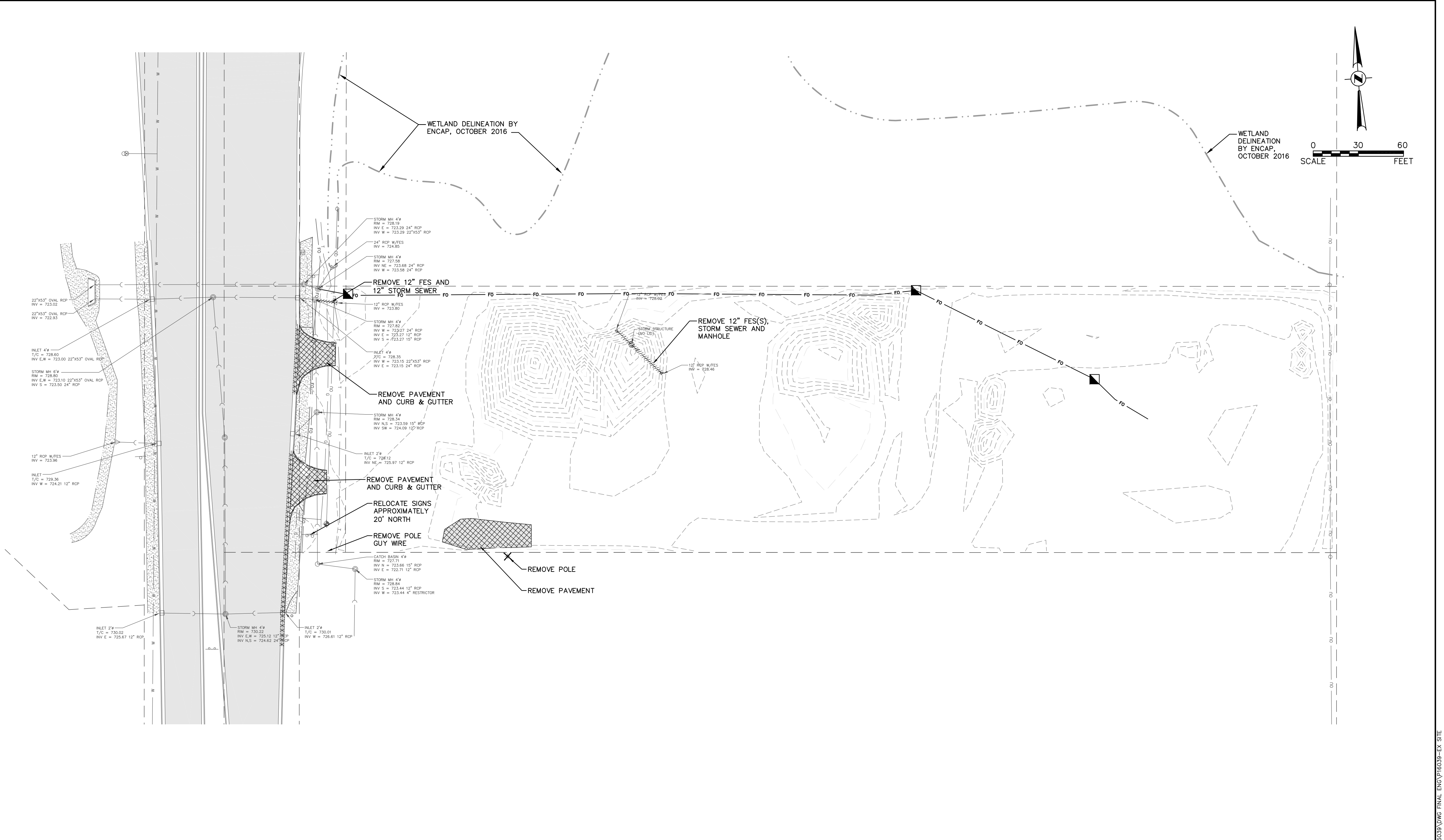
FILE NO. IL-ENG-61  
DRAWING NO.

DATE: 9/10

DESIGNED: M. SUNDINES  
CHECKED: [Signature]  
APPROVED: [Signature]

SHEET 1 OF 1

Plotted: November 30, 2018 @ 1:08 PM By: Larry Nolan - Tab: 07 Ex\_Site (22x34)



COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148**

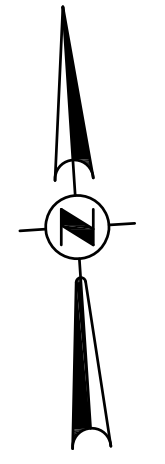
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

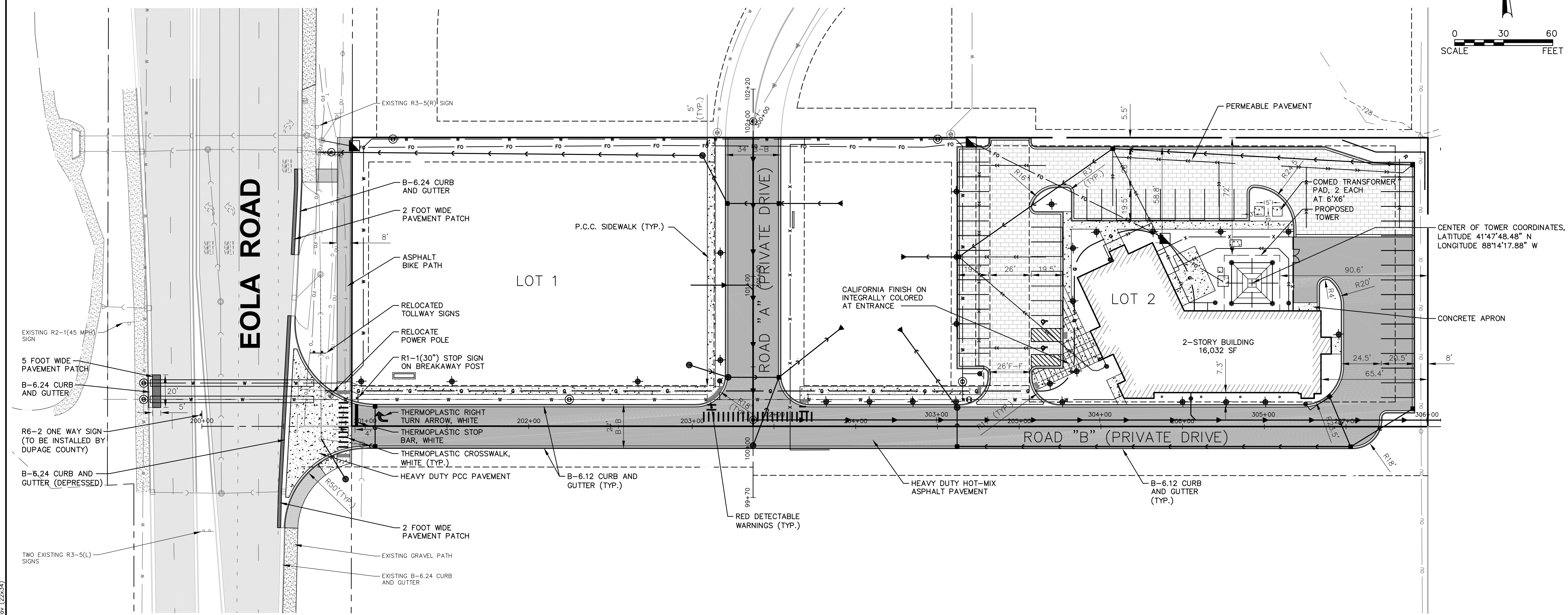
**EXISTING SITE AND DEMOLITION PLAN**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-EX SITE
SHEET	<b>7</b> OF <b>25</b>

Path: H:\S\KSPROJ\N\16039\DWG\FINAL\_ENG\16039-EX SITE



0 30 60  
SCALE FEET



CENTER OF TOWER COORDINATES,  
LATITUDE 41°47'48.48" N  
LONGITUDE 88°14'17.88" W

- NOTES:
1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
  2. ALL DISTURBED STRIPING ON EOLA ROAD IS TO BE REPLACED IN KIND WITH THERMOPLASTIC PAVEMENT MARKINGS

Plotted: December 4, 2018 @ 9:51 AM By: Larry Nolan - Tab: 08 Geom. & Pav. (22x34)  
 COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.


**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

  
**948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148**

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CGA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

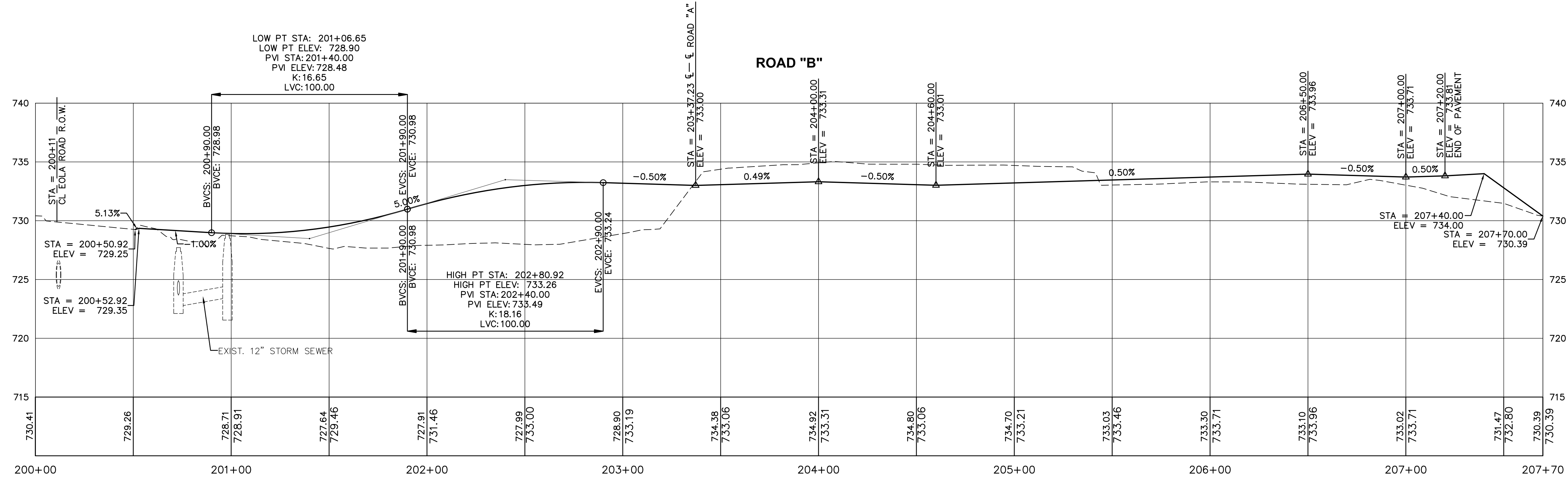
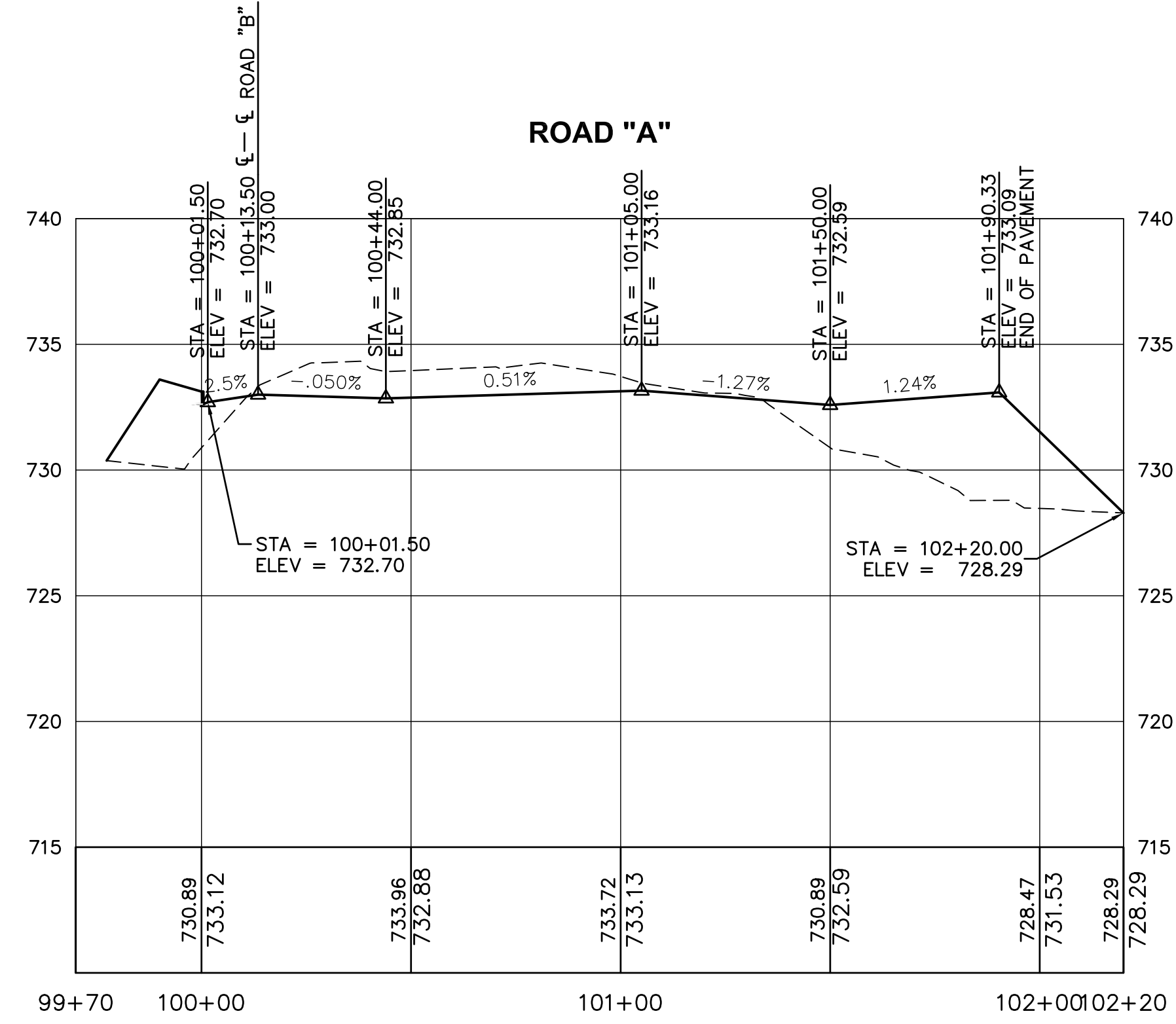
**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**GEOMETRIC AND PAVING PLAN**

DATE: DECEMBER 2018  
 PROJECT NO: P16039  
 FILE: P16039-GEOM & PAV  
 SHEET **8** OF **25**

Path: H:\SUSKPROJ\16039\DWG\FINAL\ENG\16039-GEOM & PAV





SCALE:  
 HORIZONTAL 1" = 30'  
 VERTICAL 1" = 5'

Plotted: December 4, 2018 @ 8:31 AM By: Larry Nolan - Tab: 09 A, B Profile (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**ROAD A PROFILE STA 100 TO STA 102**  
**ROAD B PROFILE STA 200 TO STA 207+50**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-ROADS PROFILE
SHEET	<b>9</b> OF <b>25</b>

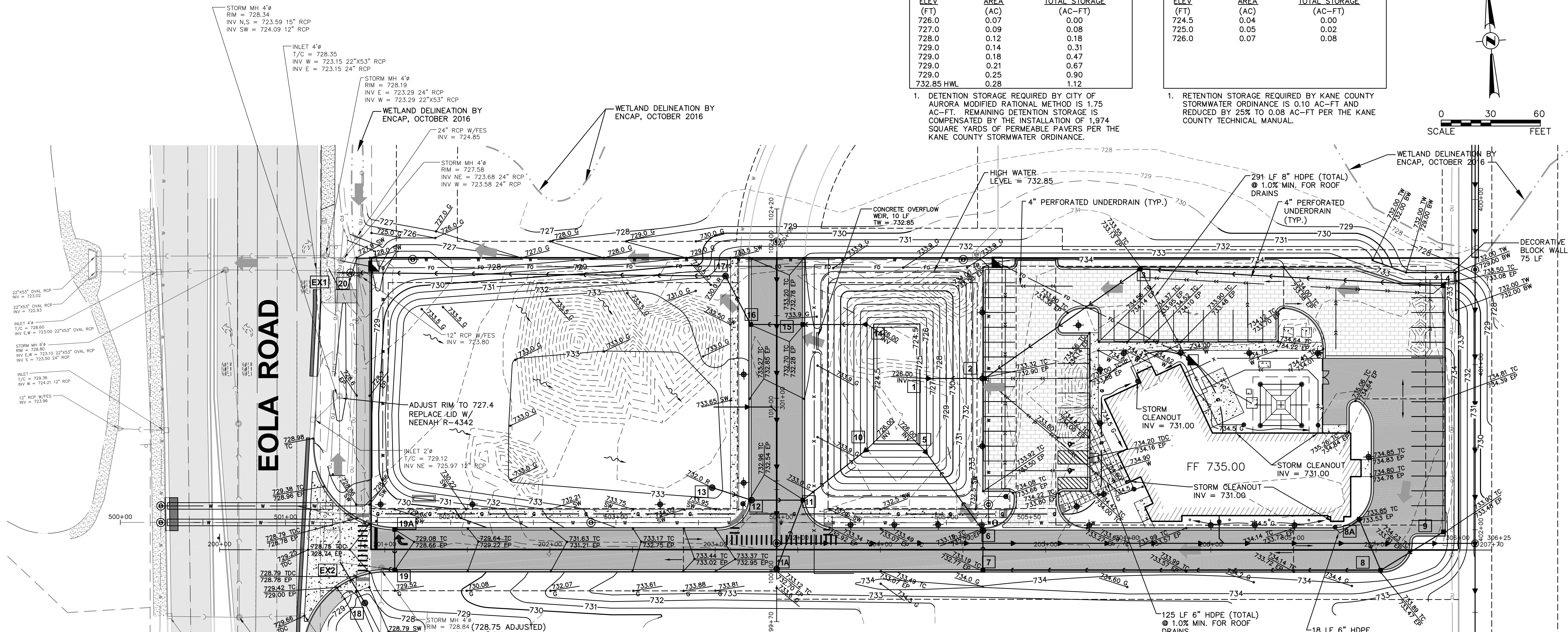
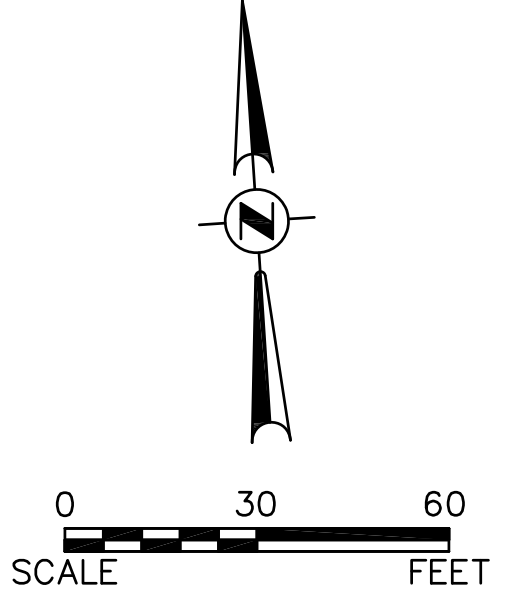
Path: H:\SUSKPROJ\16039\DWG\FINAL\ENG\16039-ROADS PROFILE

ELEV (FT)	AREA (AC)	TOTAL STORAGE (AC-FT)
726.0	0.07	0.00
727.0	0.09	0.08
728.0	0.12	0.18
729.0	0.14	0.31
729.0	0.18	0.47
729.0	0.21	0.67
729.0	0.25	0.90
732.85 HWL	0.28	1.12

ELEV (FT)	AREA (AC)	TOTAL STORAGE (AC-FT)
724.5	0.04	0.00
725.0	0.05	0.02
726.0	0.07	0.08

1. DETENTION STORAGE REQUIRED BY CITY OF AURORA MODIFIED RATIONAL METHOD IS 1.75 AC-FT. REMAINING DETENTION STORAGE IS COMPENSATED BY THE INSTALLATION OF 1,974 SQUARE YARDS OF PERMEABLE PAVERS PER THE KANE COUNTY STORMWATER ORDINANCE.

1. RETENTION STORAGE REQUIRED BY KANE COUNTY STORMWATER ORDINANCE IS 0.10 AC-FT AND REDUCED BY 25% TO 0.08 AC-FT PER THE KANE COUNTY TECHNICAL MANUAL.



SCHEDULE OF PROPOSED STORM SEWER STRUCTURES

- 1 STORM F.E.S. NO. 1  
12" RCP W/ GRATE  
INV = 726.00
- 2 STORM CATCH BASIN NO. 2  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.32  
INV = 727.00, 12" RCP NE  
INV = 727.00, 12" RCP W  
12" RCP STORM SEWER  
39 LF @ 2.56%
- 3 STORM CATCH BASIN NO. 3  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.55  
INV = 728.15, 12" RCP E  
INV = 728.15, 12" RCP SW  
12" RCP STORM SEWER  
115 LF @ 1.00%
- 4 STORM INLET NO. 4  
TYPE A, 2' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.39  
INV = 729.62, 12" RCP W  
12" RCP STORM SEWER  
184 LF @ 0.80%
- 5 STORM F.E.S. NO. 5  
12" RCP W/ GRATE  
INV = 726.00
- 6 STORM CATCH BASIN NO. 6  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.37  
INV = 727.09, 12" RCP S  
INV = 727.09, 12" RCP NW  
12" RCP STORM SEWER  
65 LF @ 1.68%
- 7 STORM CATCH BASIN NO. 7  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.37  
INV = 727.33, 12" RCP E  
INV = 727.33, 12" RCP N  
12" RCP STORM SEWER  
24 LF @ 1.00%
- 8 STORM CATCH BASIN NO. 8  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.39  
INV = 729.26, 12" RCP NE  
INV = 729.26, 12" RCP NW  
12" RCP STORM SEWER  
241 LF @ 0.80%
- 9 STORM INLET NO. 9  
TYPE A, 2' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.21  
INV = 729.62, 12" RCP SW  
12" RCP STORM SEWER  
45 LF @ 0.80%
- 10 STORM F.E.S. NO. 10  
12" RCP W/ GRATE  
INV = 726.00
- 11 STORM CATCH BASIN NO. 11  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.10  
INV = 726.83, 12" RCP W  
INV = 726.83, 12" RCP NE  
12" RCP STORM SEWER  
55 LF @ 1.51%
- 12 STORM CATCH BASIN NO. 12  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 733.10  
INV = 727.24, 12" RCP W  
INV = 727.24, 12" RCP E  
12" RCP STORM SEWER  
34 LF @ 1.21%
- 13 STORM CATCH BASIN NO. 13  
TYPE A, 4' DIA.  
W/ NEENAH R-4340-B  
RIM = 732.00  
INV = 727.49, 12" RCP E  
12" RCP STORM SEWER  
25 LF @ 1.00%
- 14 STORM F.E.S. NO. 14  
12" RCP W/ GRATE  
INV = 726.00
- 15 STORM CATCH BASIN NO. 15  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 732.42  
INV = 725.66, 12" RCP E  
INV = 725.66, 12" RCP W  
12" RCP STORM SEWER  
32 LF @ 0.80%
- 16 STORM INLET NO. 16  
TYPE A, 2' DIA.  
W/ NEENAH R-3015-R  
T/C = 732.42  
INV = 725.41, 12" RCP E  
INV = 725.41, 12" RCP NW  
12" RCP STORM SEWER  
33 LF @ 0.80%
- 17 STORM CATCH BASIN NO. 17  
TYPE A, 4' DIA.  
W/ NEENAH R-1772-B  
RIM = 733.00  
INV = 725.15, 12" RCP SE  
INV = 725.15, 12" RCP W  
12" RCP STORM SEWER  
231 LF @ 0.80%
- 18 STORM CATCH BASIN NO. 18  
TYPE A, 4' DIA.  
W/ NEENAH R-4340-B  
RIM = 727.50  
INV = 724.00, 12" RCP NW  
12" RCP STORM SEWER  
29 LF @ 1.00%
- 19 STORM CATCH BASIN NO. 19  
TYPE A, 4' DIA.  
W/ NEENAH R-3015-R  
T/C = 729.08  
INV = 725.17, 12" RCP N  
INV = 725.17, 12" RCP W  
12" RCP STORM SEWER  
8 LF @ 1.00%
- 19A STORM INLET NO. 19A  
TYPE A, 2' DIA.  
W/ NEENAH R-3015-R  
T/C = 729.08  
INV = 725.41, 12" RCP S  
12" RCP STORM SEWER  
24 LF @ 1.00%
- 20 STORM CATCH BASIN NO. 20  
TYPE A, 4' DIA.  
W/ NEENAH R-1772-B  
RIM = 728.00  
INV = 723.31, 12" RCP E  
INV = 723.31, 12" RCP W  
2" SCH. 40 RESTRICTOR (4 LF) W  
12" RCP STORM SEWER  
4 LF @ 1.00%

EXISTING SEWER STRUCTURES

- EX1 Ex. 4" STORM MANHOLE NO. 1  
RIM = 727.62  
INV = 723.27, 12" RCP E (REM.)  
INV = 723.27, 12" RCP E (PROP.)  
INV = 723.27, 15" RCP S  
INV = 723.27, 24" RCP W
- EX2 Ex. 4" STORM MANHOLE NO. 2  
RIM = 727.71 (729.03 ADJUSTED)  
INV = 723.66, 15" RCP N  
INV = 723.71, 12" RCP E  
INV = 723.71, 12" RCP SE (PROP.)  
INSTALL TYPE 1 FRAME AND CLOSED LID

Plotted: December 4, 2018 @ 1:21 PM By: Larry Nolan - Tab: 10 Grading (22x34)  
 COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

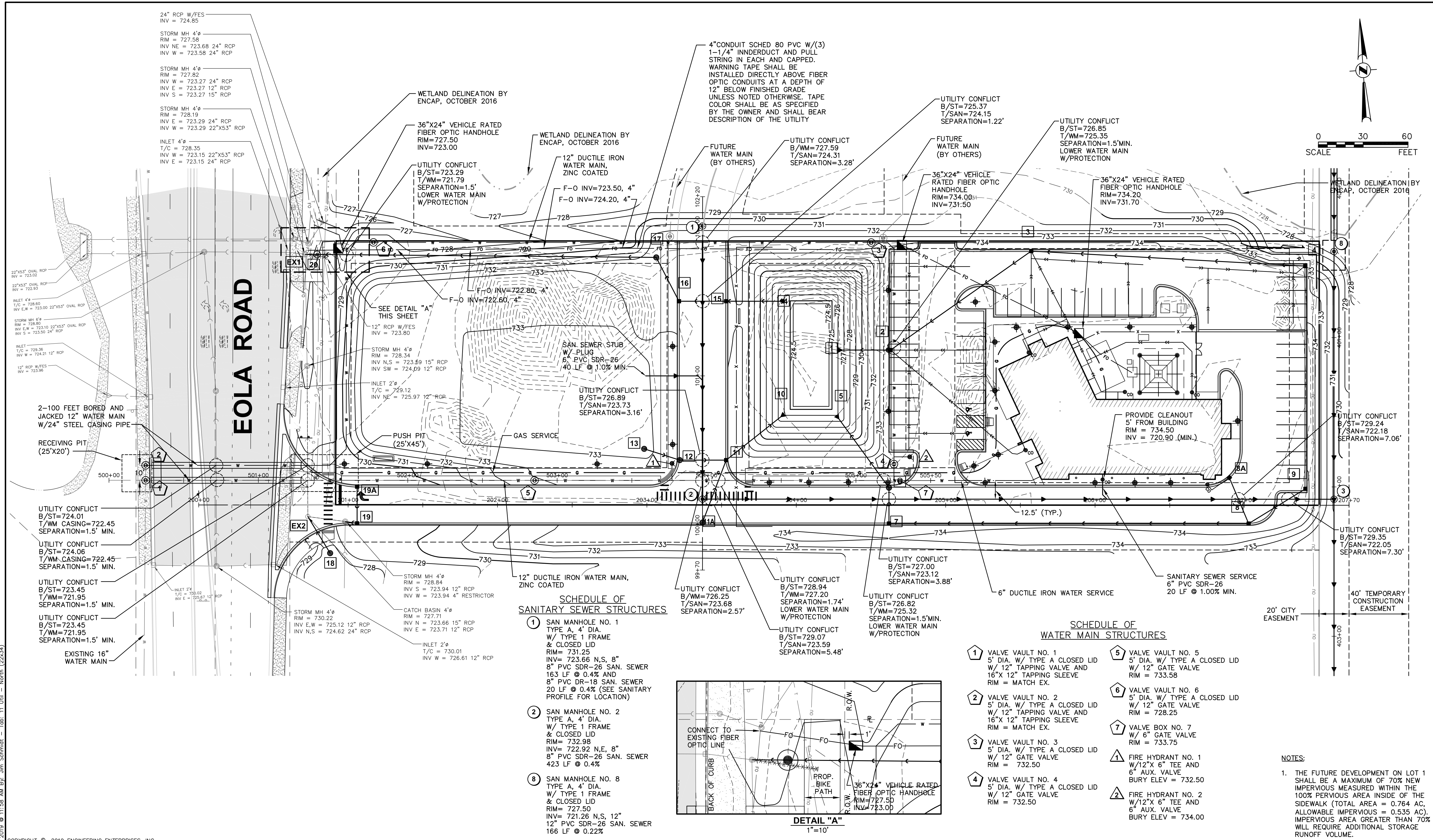
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER COA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
 EOLA ROAD SITE  
 AURORA, ILLINOIS

**GRADING AND DRAINAGE PLAN**

DATE:	DECEMBER 2018
PROJECT NO.:	P16039
FILE:	P16039-GRADING
SHEET	10 OF 25

Path: H:\SUSKRO\N\16039\DWG\FINAL\ENG\16039-GRADING

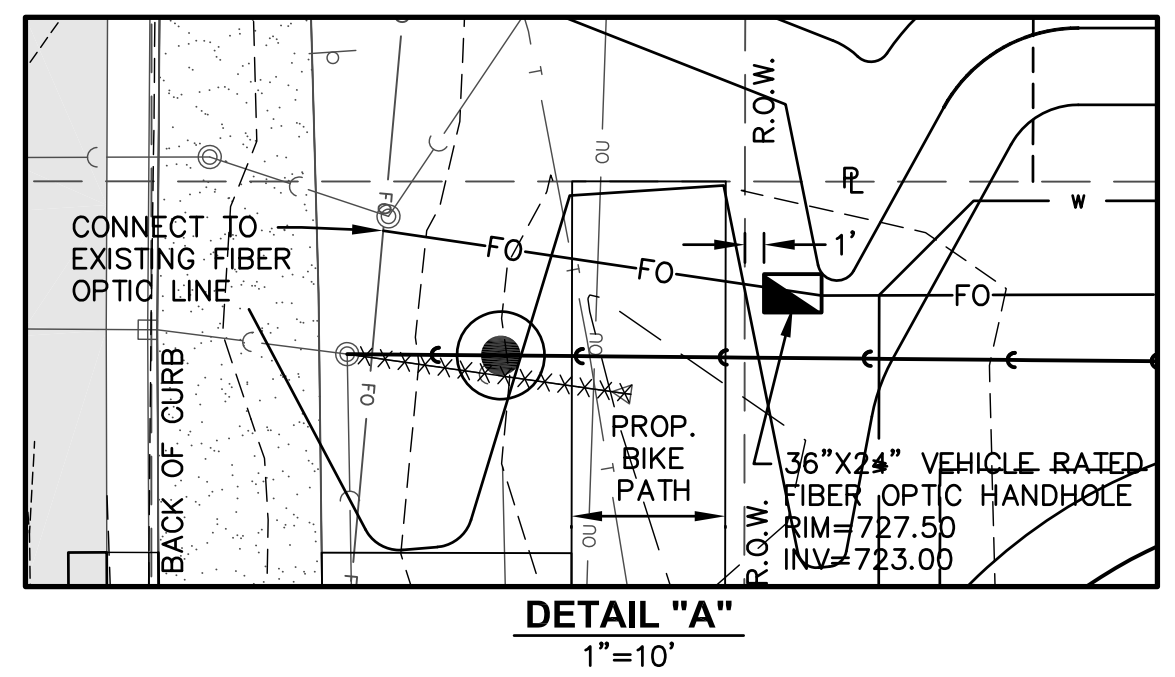


**SCHEDULE OF SANITARY SEWER STRUCTURES**

- 1 SAN MANHOLE NO. 1  
TYPE A, 4' DIA.  
W/ TYPE 1 FRAME  
& CLOSED LID  
RIM = 731.25  
INV = 723.66 N.S., 8"  
8" PVC SDR-26 SAN. SEWER  
163 LF @ 0.4% AND  
8" PVC DR-18 SAN. SEWER  
20 LF @ 0.4% (SEE SANITARY  
PROFILE FOR LOCATION)
- 2 SAN MANHOLE NO. 2  
TYPE A, 4' DIA.  
W/ TYPE 1 FRAME  
& CLOSED LID  
RIM = 732.98  
INV = 722.92 N.E., 8"  
8" PVC SDR-26 SAN. SEWER  
423 LF @ 0.4%
- 8 SAN MANHOLE NO. 8  
TYPE A, 4' DIA.  
W/ TYPE 1 FRAME  
& CLOSED LID  
RIM = 727.50  
INV = 721.26 N.S., 12"  
12" PVC SDR-26 SAN. SEWER  
166 LF @ 0.22%

**SCHEDULE OF WATER MAIN STRUCTURES**

- 1 VALVE VAULT NO. 1  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE AND  
16" X 12" TAPPING SLEEVE  
RIM = MATCH EX.
- 2 VALVE VAULT NO. 2  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE AND  
16" X 12" TAPPING SLEEVE  
RIM = MATCH EX.
- 3 VALVE VAULT NO. 3  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE  
RIM = 732.50
- 4 VALVE VAULT NO. 4  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE  
RIM = 732.50
- 5 VALVE VAULT NO. 5  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE  
RIM = 733.58
- 6 VALVE VAULT NO. 6  
5' DIA. W/ TYPE A CLOSED LID  
W/ 12" TAPPING VALVE  
RIM = 728.25
- 7 VALVE BOX NO. 7  
W/ 6" GATE VALVE  
RIM = 733.75
- 1 FIRE HYDRANT NO. 1  
W/ 12" X 6" TEE AND  
6" AUX. VALVE  
BURY ELEV = 732.50
- 2 FIRE HYDRANT NO. 2  
W/ 12" X 6" TEE AND  
6" AUX. VALVE  
BURY ELEV = 734.00



**NOTES:**

- THE FUTURE DEVELOPMENT ON LOT 1 SHALL BE A MAXIMUM OF 70% NEW IMPERVIOUS MEASURED WITHIN THE 100% PERVIOUS AREA INSIDE OF THE SIDEWALK (TOTAL AREA = 0.764 AC, ALLOWABLE IMPERVIOUS = 0.535 AC). IMPERVIOUS AREA GREATER THAN 70% WILL REQUIRE ADDITIONAL STORAGE RUNOFF VOLUME.

Printed: January 30, 2019 @ 11:58 AM By: Jim Schmidt - Tab: 11 UTIL - North (22x34)  
 COPYRIGHT © 2019 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

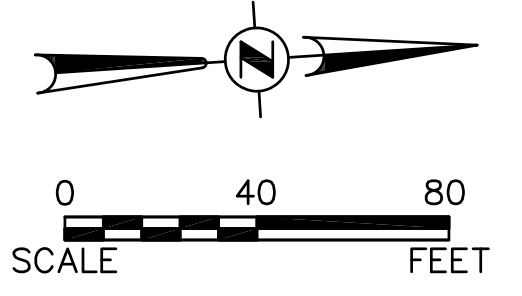
**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
11	1/29/19	PER FOX METRO COMMENTS
10	1/23/19	PER COMED COMMENTS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

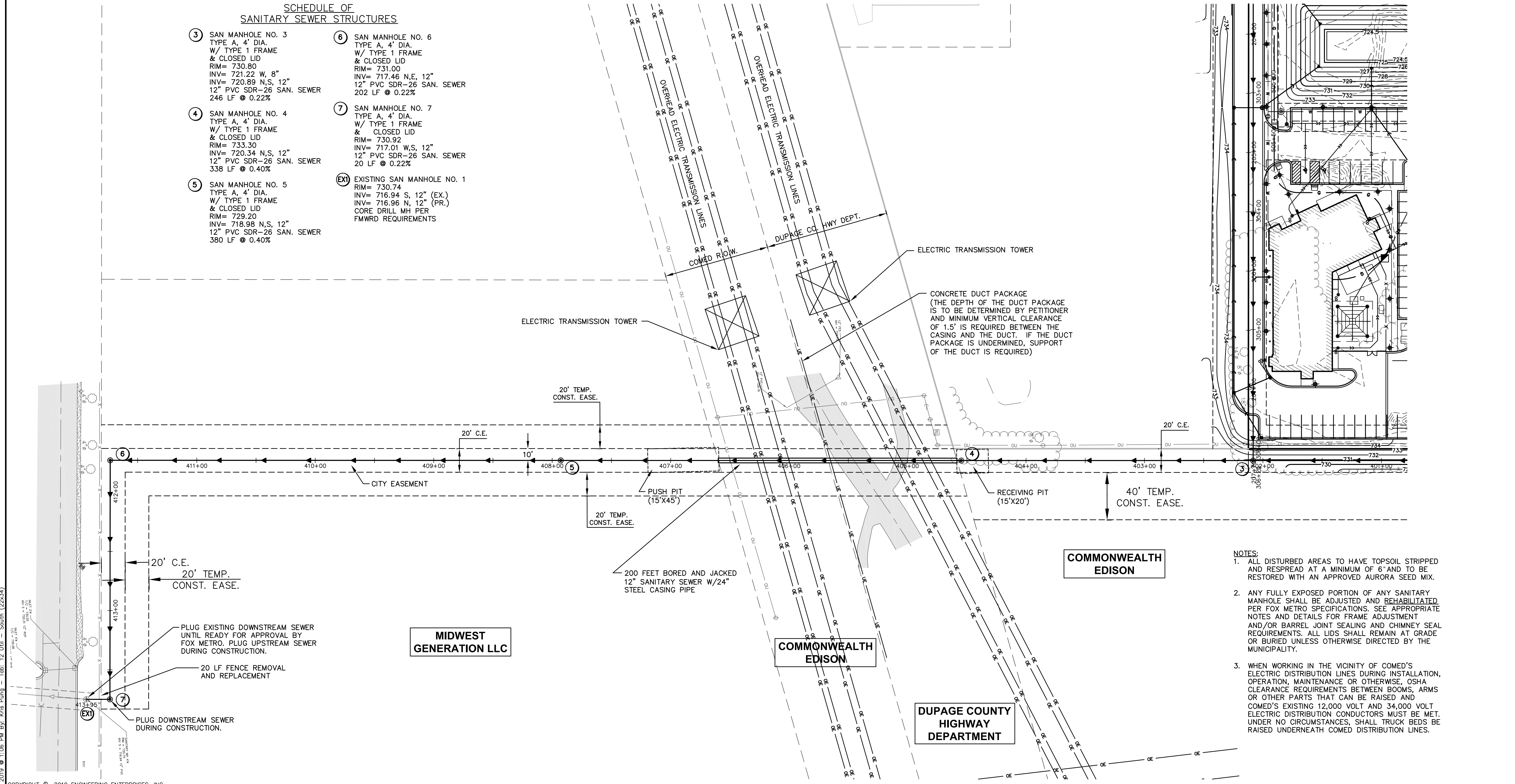
**UTILITY PLAN - NORTH**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-UTIL - NORTH
SHEET	11 OF 25



**SCHEDULE OF  
SANITARY SEWER STRUCTURES**

- |   |   |
|---|---|
| <p>③ SAN MANHOLE NO. 3<br/>TYPE A, 4' DIA.<br/>W/ TYPE 1 FRAME<br/>&amp; CLOSED LID<br/>RIM= 730.80<br/>INV= 721.22 W, 8"<br/>INV= 720.89 N,S, 12"<br/>12" PVC SDR-26 SAN. SEWER<br/>246 LF @ 0.22%</p> | <p>⑥ SAN MANHOLE NO. 6<br/>TYPE A, 4' DIA.<br/>W/ TYPE 1 FRAME<br/>&amp; CLOSED LID<br/>RIM= 731.00<br/>INV= 717.46 N.E, 12"<br/>12" PVC SDR-26 SAN. SEWER<br/>202 LF @ 0.22%</p> |
| <p>④ SAN MANHOLE NO. 4<br/>TYPE A, 4' DIA.<br/>W/ TYPE 1 FRAME<br/>&amp; CLOSED LID<br/>RIM= 733.30<br/>INV= 720.34 N,S, 12"<br/>12" PVC SDR-26 SAN. SEWER<br/>338 LF @ 0.40%</p>                       | <p>⑦ SAN MANHOLE NO. 7<br/>TYPE A, 4' DIA.<br/>W/ TYPE 1 FRAME<br/>&amp; CLOSED LID<br/>RIM= 730.92<br/>INV= 717.01 W,S, 12"<br/>12" PVC SDR-26 SAN. SEWER<br/>20 LF @ 0.22%</p>  |
| <p>⑤ SAN MANHOLE NO. 5<br/>TYPE A, 4' DIA.<br/>W/ TYPE 1 FRAME<br/>&amp; CLOSED LID<br/>RIM= 729.20<br/>INV= 718.98 N,S, 12"<br/>12" PVC SDR-26 SAN. SEWER<br/>380 LF @ 0.40%</p>                       | <p>① EXISTING SAN MANHOLE NO. 1<br/>RIM= 730.74<br/>INV= 716.94 S, 12" (EX.)<br/>INV= 716.96 N, 12" (PR.)<br/>CORE DRILL MH PER<br/>FMWRD REQUIREMENTS</p>                        |



- NOTES:**
1. ALL DISTURBED AREAS TO HAVE TOPSOIL STRIPPED AND RESPAD AT A MINIMUM OF 6" AND TO BE RESTORED WITH AN APPROVED AURORA SEED MIX.
  2. ANY FULLY EXPOSED PORTION OF ANY SANITARY MANHOLE SHALL BE ADJUSTED AND REHABILITATED PER FOX METRO SPECIFICATIONS. SEE APPROPRIATE NOTES AND DETAILS FOR FRAME ADJUSTMENT AND/OR BARREL JOINT SEALING AND CHIMNEY SEAL REQUIREMENTS. ALL LIDS SHALL REMAIN AT GRADE OR BURIED UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY.
  3. WHEN WORKING IN THE VICINITY OF COMED'S ELECTRIC DISTRIBUTION LINES DURING INSTALLATION, OPERATION, MAINTENANCE OR OTHERWISE, OSHA CLEARANCE REQUIREMENTS BETWEEN BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED AND COMED'S EXISTING 12,000 VOLT AND 34,000 VOLT ELECTRIC DISTRIBUTION CONDUCTORS MUST BE MET. UNDER NO CIRCUMSTANCES, SHALL TRUCK BEDS BE RAISED UNDERNEATH COMED DISTRIBUTION LINES.

Plotted: January 23, 2019 @ 1:06 PM By: Kide Pung - Tab: 12 Util - South (22x34)  
 COPYRIGHT © 2019 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
10	1/23/19	PER COMED COMMENTS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS

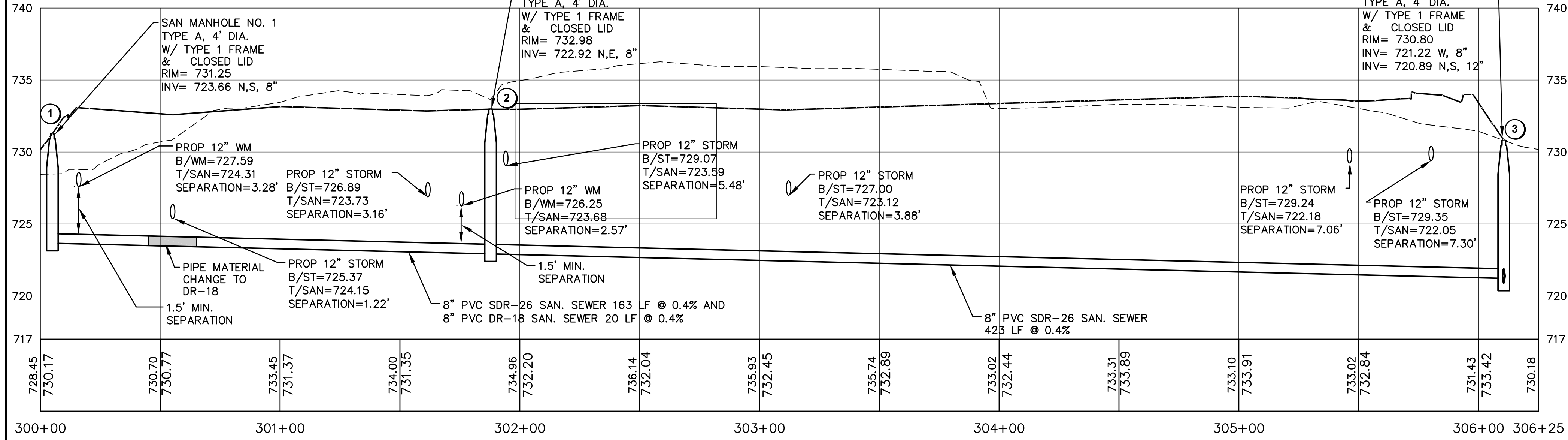
**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**UTILITY PLAN - SOUTH**

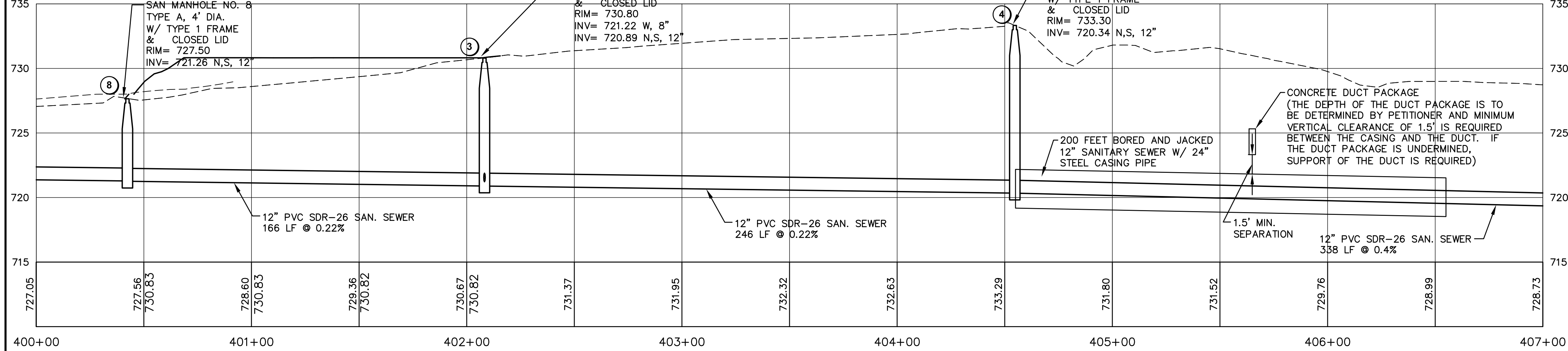
DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-UTIL - SOUTH
SHEET	<b>12</b> OF <b>25</b>

Path: H:\S05KPROJ\16039\DWG\FINAL\ENG\16039-UTIL - SOUTH

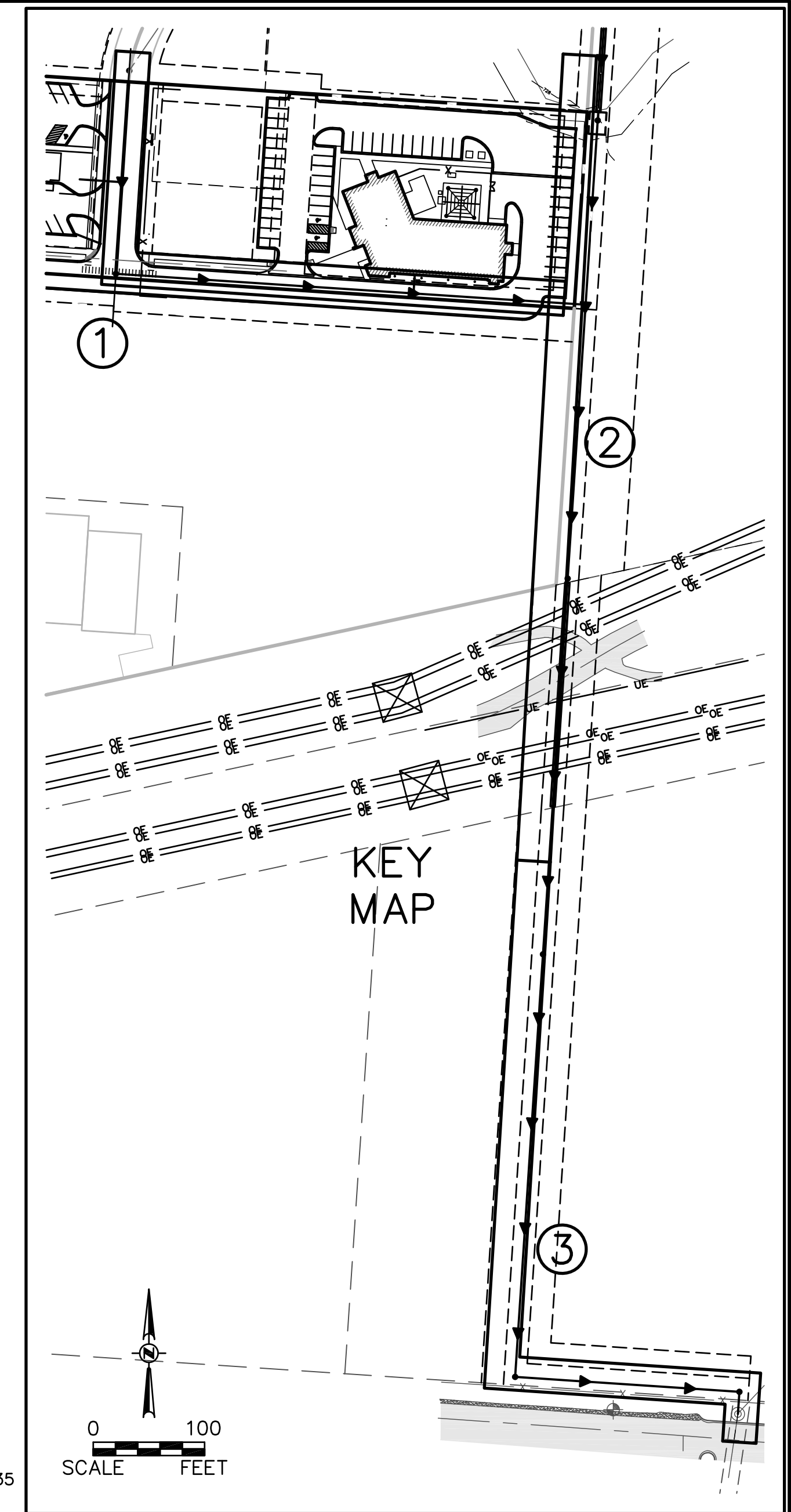
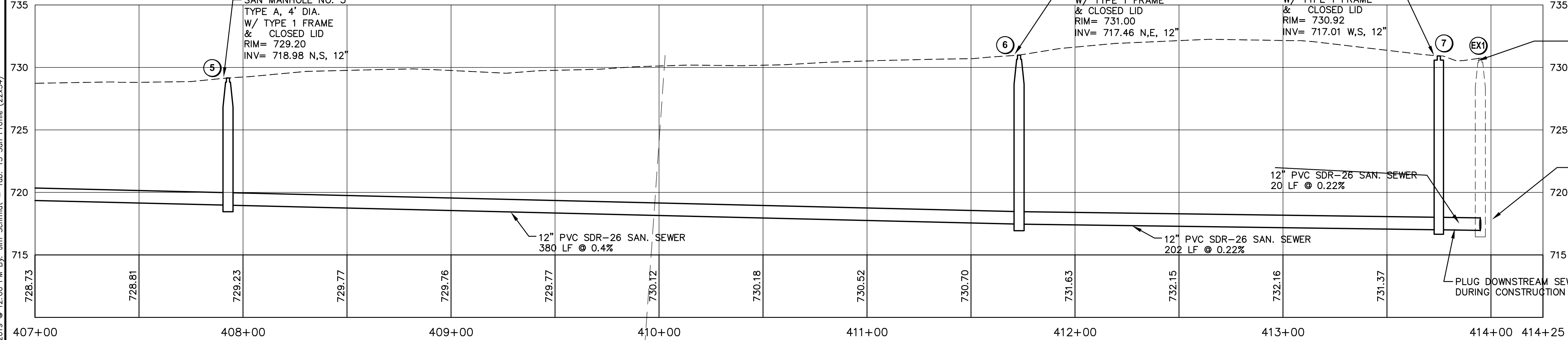
**PROFILE NO. 1**



**PROFILE NO. 2**



**PROFILE NO. 3**



**NOTES:**

- ANY FULLY EXPOSED PORTION OF ANY SANITARY MANHOLE SHALL BE ADJUSTED AND REHABILITATED PER FOX METRO SPECIFICATIONS. SEE APPROPRIATE NOTES AND DETAILS FOR FRAME ADJUSTMENT AND/OR BARREL JOINT SEALING AND CHIMNEY SEAL REQUIREMENTS. ALL LIDS SHALL REMAIN AT GRADE OR BURIED UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY.
- WHEN WORKING IN THE VICINITY OF COMED'S ELECTRIC DISTRIBUTION LINES DURING INSTALLATION, OPERATION, MAINTENANCE OR OTHERWISE, OSHA CLEARANCE REQUIREMENTS BETWEEN BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED AND COMED'S EXISTING 12,000 VOLT AND 34,000 VOLT ELECTRIC DISTRIBUTION CONDUCTORS MUST BE MET. UNDER NO CIRCUMSTANCES, SHALL TRUCK BEDS BE RAISED UNDERNEATH COMED DISTRIBUTION LINES.

EXISTING SAN MANHOLE NO. 1  
RIM= 730.74  
INV= 716.94 S, 12" (EX.)  
INV= 716.96 N, 12" (PR.)  
CORE DRILL MH PER FMWRD REQUIREMENTS

PLUG EXISTING UPSTREAM INVERT OF EXISTING MANHOLE UNTIL READY FOR APPROVAL BY FOX METRO. PLUG DOWNSTREAM INVERT OF PROPOSED MANHOLE 7 DURING CONSTRUCTION

PLUG DOWNSTREAM SEWER DURING CONSTRUCTION

SCALE:  
HORIZONTAL 1" = 30'  
VERTICAL 1" = 5'

Plotted: January 30, 2019 @ 12:00 PM By: Jim Schmidt - Tab: 13 San Profile (22x34)  
 COPYRIGHT © 2019 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

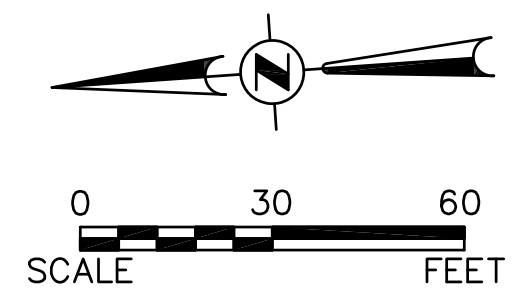
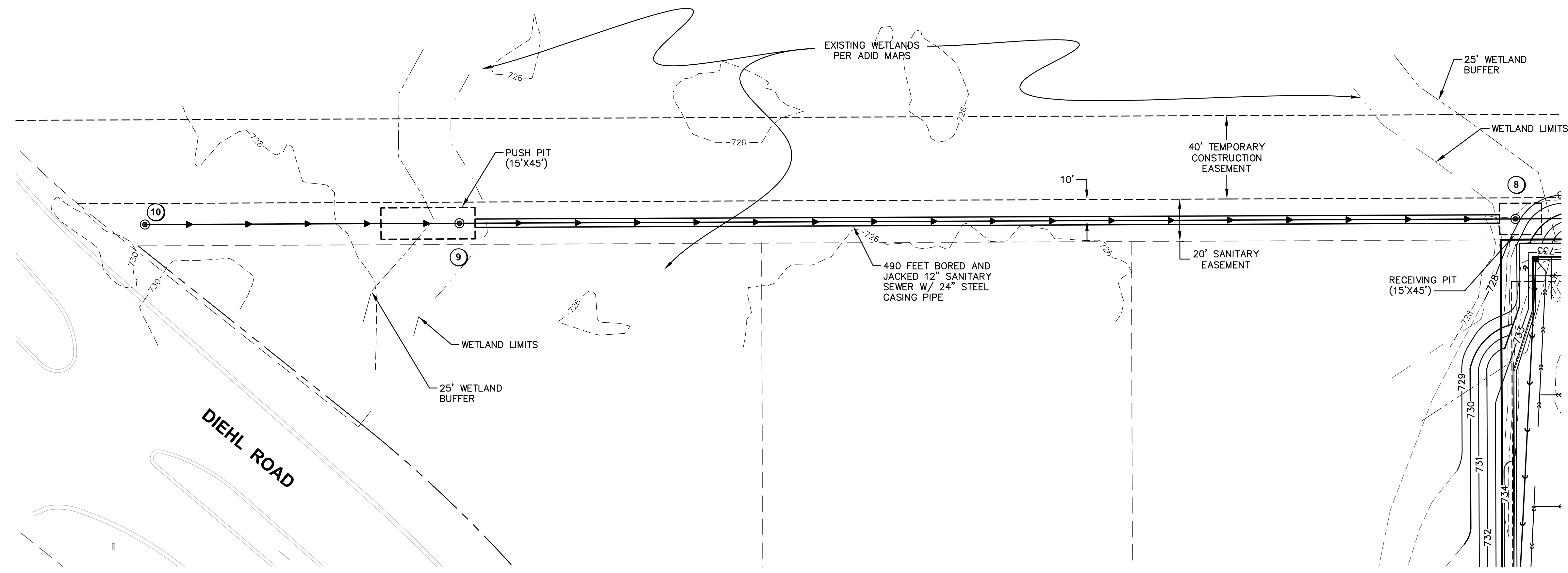
NO.	DATE	REVISIONS
11	1/29/19	PER FOX METRO COMMENTS
10	1/23/19	PER COMED COMMENTS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT

**SCIENTEL SOLUTIONS**  
 EOLA ROAD SITE  
 AURORA, ILLINOIS

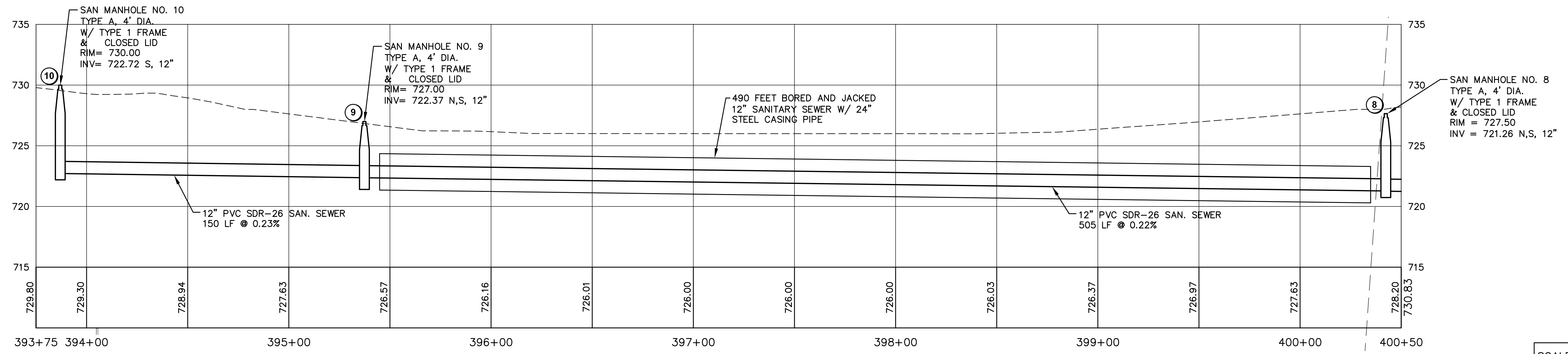
**SANITARY PROFILE**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039--SAN PROFILE
SHEET	13 OF 25

Path: H:\SUSKPROJ\16039\DWG\FINAL\ENG\16039--SAN PROFILE



NOTE:  
 THE 12" SANITARY SEWER FROM SAN. MH 10 TO SAN. MH 8 IS PART OF PHASE 2 OF THE PROJECT AND WILL BE CONSTRUCTED AT A LATER DATE.



SCALE:  
 HORIZONTAL 1" = 30'  
 VERTICAL 1" = 5'

Plotted: December 14, 2018 @ 9:28 AM By: Kris Pung - Tab: 14\_San Profile (22x34)  
 COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

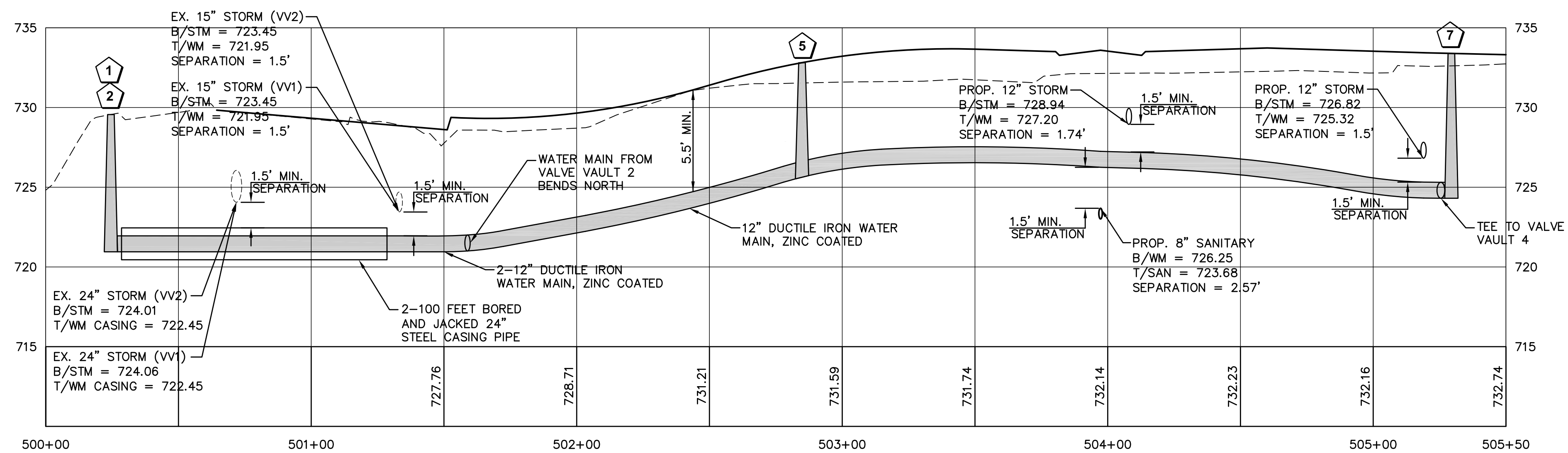
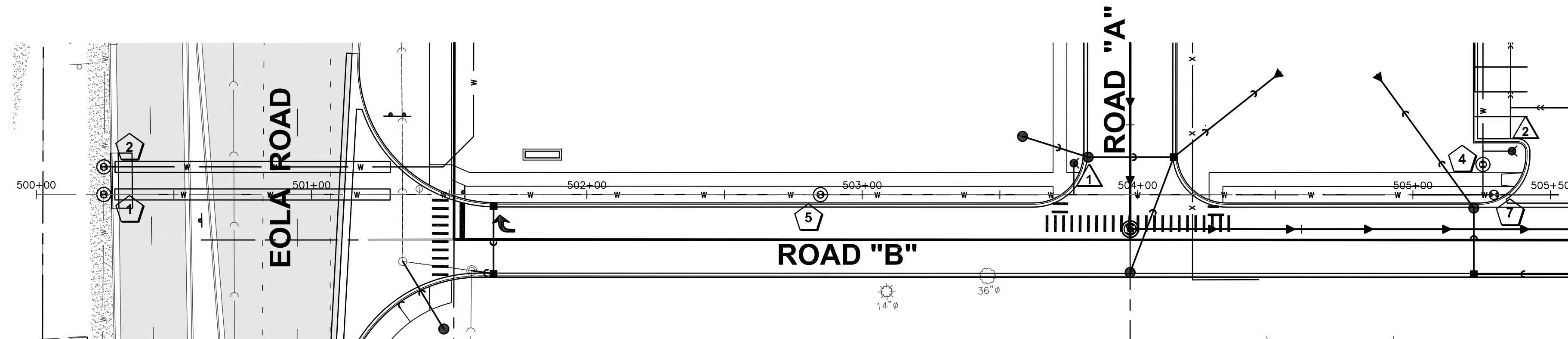
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**SANITARY PROFILE**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039--SAN PROFILE
SHEET	<b>14</b> OF <b>25</b>

Path: H:\SUSKPROJ\16039\DWG\_FINAL\_ENG\16039--SAN\_PROFILE



SCALE:  
 HORIZONTAL 1" = 30'  
 VERTICAL 1" = 5'

Printed: December 4, 2018 @ 2:44 PM By: Larry Nolan - Tab: 15 WM Profile (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
**EOLA ROAD SITE**  
**AURORA, ILLINOIS**

**WATER MAIN PROFILE**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-WM PROFILE
SHEET	<b>15</b> OF <b>25</b>

Path: H:\SUSKPROJ\16039\DWG FINAL ENG\16039-WM PROFILE

**CONTRACTOR NOTICE**  
Fox Metro Water Reclamation District  
IMPORTANT- PLEASE READ!

Rev. 3/15/17

The following list represents costly problems or violations that commonly occur during or after construction. Our goal is to make everyone aware of these problems and hopefully reduce unnecessary delays, expenses, and fines.

In order to perform new construction or repair work on any private sanitary or water service, the following must be completed before work may commence:

A \$25,000 license & permit bond made out to "Fox Metro Water Reclamation District" must be received and approved for new construction or repair work.

A District permit for new construction or a repair permit is required.

An inspection is required by the District. To save a \$50 same day inspection fee, please provide twenty four (24) notice.

1. All public sanitary sewer construction must have an IEPA permit and plan approval letter on file at the District prior to commencing. Please provide our office with 48-hour notification to verify this before starting construction. If construction does not commence within two (2) days of the initial notice, start notification must be resubmitted.

2. To prevent unnecessary flow or discharge into the existing sanitary system, all new sanitary construction must be securely plugged and maintained by the contractor. The plug(s) may only be removed after permission has been obtained from the municipality or the District's engineering department. All construction drainage must be properly removed from the new sanitary sewer system.

3. All private building sewer connections must have a connection permit from the District. In addition, this work shall be inspected by the District. Please call (630) 301-6811 to schedule inspections twenty-four (24) hours from starting construction. No building sewers shall be installed until all proposed public sewers have been tested and approved by the District and a final recorded subdivision plat is submitted.

4. All domestic water service installations (except for the Village of Oswego and the United City of Yorkville) are to be inspected by the District. Any/all final connections to any building, made by any plumber or excavator, shall also be inspected by the District. Do not backfill this connection before this inspection is completed.

5. All sanitary manholes are to be sealed (exterior of chimney & barrels) and vacuum tested. Any disruption of these manholes will break the seal(s), requiring a costly resealing and retesting process. Please stay clear of all manholes.

6. Ductile iron & cast iron pipe is not allowed for the use of gravity sewers in the District.

For questions regarding permitting and construction, call the District's engineering department at (630) 301-6882. For questions regarding inspections or to report violations, open manholes, or other issues please call (630) 301-6811.

**FOX METRO WATER RECLAMATION DISTRICT  
SANITARY SEWER INSTALLATION RULES AND REGULATIONS**

Rev. 3/15/17

The Fox Metro Water Reclamation District has first jurisdiction in the tributary metropolitan sewer area as per Sewer Use Ordinance #659, and all discharges to the sanitary system will be controlled and monitored by the Fox Metro Water Reclamation District.

**Bonding**

1. To perform sanitary sewer service installation or repairs you must provide a twenty five thousand dollar (\$25,000.00) license & permit bond to Fox Metro Water Reclamation District (District), as the obligee. On this bond, it shall be indicated that the contractor performs work such as sanitary sewer excavation, sanitary sewer construction. The bonded contractor is required to install or repair according to District specifications (also refer to Standard Specifications for Water and Sewer Main Construction in Illinois and '77 Illinois Administrative Code, part 890, Illinois Plumbing Code', latest edition).

**Illegal discharges**

2. Failure to comply with District Ordinances may result in penalties not to exceed three thousand dollars for each violation. These fines may double with each occurrence by the same company, individual or contractor. The following represent some of the most common violations that are subject to fines as required by the Sewer Use Ordinance of the District:

- a. Release of ground water, aggregates or mud into the public sewer system.
- b. Mainline sewer construction without 48 hour notice.
- c. Construction of sanitary or water service or repair without inspection and/or license and permit bond.
- d. Unsecured system (no plug per approved plans).
- e. Construction using unapproved plans.
- f. Construction of sewers without required I.E.P.A. permit and District approval letter.

PLEASE PAY PARTICULAR ATTENTION TO THIS ITEM. UNDER NO CIRCUMSTANCES WILL FOX METRO ALLOW ANY AGGREGATES, MUD, CLAY OR GROUND WATER TO ENTER THE SANITARY SEWER SYSTEM. FAILURE TO COMPLY WILL RESULT IN MAXIMUM FINES, AS WELL AS POSSIBLE CLEANING AND TREATMENT COSTS. REPEAT OFFENDERS MAY BECOME SUBJECT TO HAVING THEIR BOND REVOKED AND DENIED FUTURE WORK IN FOX METRO'S SERVICE AREA. CALL THE ENGINEERING DEPARTMENT AT (630) 301-6882 WITH QUESTIONS.

3. All new sanitary construction must be securely plugged per the approved plans. This plug must be maintained to prevent unnecessary flow or discharge into the existing sanitary system. This plug may only be removed after all construction drainage has been properly removed.

4. No ground water, run off, or surface water is allowed to enter any sanitary sewer system before, during or after any sanitary sewer service or mainline construction installation or repair. In addition, draining or pumping ground or surface water into any sanitary sewer system is strictly prohibited.

5. No aggregate, dirt, clay, debris, or foreign material is allowed to enter any sanitary sewer system. Any individual, contractor or company causing said material to enter an existing sanitary sewer system shall clean and remove this debris from the system at their expense, and under the supervision of the District and/or the governing municipality. Furthermore, should it be determined that this material caused a system surcharge or backup resulting in property loss or damage, this same responsible party, individual or company shall make proper restitution, restoration, clean up and disinfection as may be required for proper health and safety.

6. Footing tile, sump pumps, under floor drains, down spouts, yard drains or any other connections for draining ground water, run off, or surface water directly or indirectly into sanitary sewers are expressly prohibited and subject to fines and treatment costs.

**GENERAL NOTES FOR SANITARY SEWER  
CONSTRUCTION IN THE FOX METRO WATER RECLAMATION DISTRICT**

Rev. 3/26/18

1. All sanitary sewer construction shall be performed in accordance with the Fox Metro Water Reclamation District Sewer Use Ordinance No. 859, the Standard Specifications for Water and Sewer Main Construction in Illinois, and '77 Illinois Administrative Code, part 890, Illinois Plumbing Code', latest edition.

2. Final approved set of plans and specifications must be kept on the job site. Failure to do this may result in a fine and/or be considered cause to stop the job.

3. Contractors for all sanitary sewer main extension projects shall notify the District's Engineering Department twenty-four (24) hours prior to the start of work. Notification shall be done via telephone at (630) 301-6882, fax at (630) 897-6094 or email (smedrana@foxmetro.org or mfrankino@foxmetro.org).

4. For service connection inspections, call twenty-four (24) hours in advance to schedule an inspection at (630) 301-6811.

5. To prevent any possible infiltration, inflow or debris from entering the downstream sanitary system, a factory-made plug shall be placed in the manhole by the contractor, as indicated on the final approved plans. The placement of the plug(s) shall not interrupt the service of any user. This plug is to be removed only upon approval by the District or the city/village and only after any construction drainage and/or debris has been properly removed. Under no circumstances is overlaid surface drainage allowed to drain into the sanitary system.

6. All sanitary sewers shall be tested in accordance with Section 31-1.12 of the Standard Specifications for Water and Sewer Main Construction in Illinois. In addition, all manholes shall be vacuum tested (manhole testing will be in accordance with ASTM-1244-93 or in accordance with District requirements). In case of testing specification conflict, where deeper manholes are constructed, the more stringent requirement will apply.

7. When connecting to an existing sanitary main when a tee or wye is not provided, an 'Inserta Tee' fitting must be installed. The minimum distance between fittings is four (4) feet center to center. Installation of a wye/tee on an existing main is prohibited. The angle of any new connection shall not exceed 1/1 or 45 degrees.

8. Only 'Infi-Shield', 'Adaptor-Seal', and 'Wrapid Seal' or approved equal chimney seals shall be installed on all manholes and grease removal systems.

9. Only PVC transition fittings shall be used in all new construction when joining PVC pipes which are damaged, disturbed during construction or have different outside diameters. Refer to Fox Metro 'Manhole/Sewer Pipe Specifications' for information relating to repairs of mains damaged during construction.

10. All existing sanitary interceptor (mains 15" in diameter or greater) manhole frames located within any proposed development will be required to be adjusted to grade. Under no circumstances may the vertical height of the adjusting rings (two total) rings exceed eight (8) inches. Extreme care should be taken when working near all sanitary manholes.

11. Cast iron cleanout covers are required in areas receiving traffic loads.

12. Ductile iron and cast iron pipe is not allowed for the use of gravity sewers in the District.

13. Landscaping within any District easement is prohibited without review and subsequent plan approval. The easement shall be graded so that the ground surface does not exceed a six (6) percent gradient in all directions.

14. All building drains/sewers shall be overhead or 'hung' through the basement wall of any new building. All sanitary risers shall be required to be constructed to a depth of no greater than six (6) to seven (7) feet at the right of way. If a conflict arises between a sanitary sewer and a water line, IEPA water & sewer separation requirements take precedent.

15. Whether any grease removal system is newly constructed or 'retrofitted' to an existing building, a minimum each of 1% slope and 3.5 of cover for pipes are required.

16. Minimum design slopes shall be 1.00% for six (6) inch building sewers, .40% for eight (8) inch sewers, and .28% for ten (10) inch sewers with all other design slopes conforming to the requirements of the 'Standard Specifications for Water and Sewer Main Construction in Illinois'.

17. All manhole barrel sections (including those sections of existing manholes which have been exposed during construction) shall be required to be externally sealed with a #6" or #9" wide (min.) sealing band of rubber and mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, \*\*type II or \*type III.

18. All signs, leaks, pipe defects, or other related issues with any newly televised sewer shall be required by the contractor at the discretion of the District. For approval of repairs, these areas will need to be confirmed in writing as completed by the appropriate municipality or re-televised by the District. At the District's discretion, connection permits may be withheld if confirmation of completed repairs cannot be obtained.

19. Any contractor, who consistently fails to perform in accordance with the District's standards and specifications as provided on the plans, may be prohibited from performing work in the District. The District reserves the right to revoke or disallow any contractor's bond.

20. The District shall televise all sewers eight (8) inches in diameter or greater. In order to access each manhole, the developer is responsible for providing a smooth, level area of sufficient width along the sanitary sewer system. If the sewers are found not to be clean during televising, the developer may incur additional charges if proper access to all manholes is not provided and/or for 'heavy cleaning' of sewers by the District's contractor.

21. Full-sized cleanouts are required on all building sewers and shall be installed at a minimum depth of four (4) feet rim to invert.

**Inspections**

7. All sanitary building sewers, including new construction and repairs, shall be inspected by the District.

8. The District performs all water service inspections for the City of Aurora and Villages of Montgomery, Sugar Grove and North Aurora and shall consist of the following:

a. All domestic water connections shall be a minimum of one (1) inch in diameter and shall be Type K copper. All domestic water connections larger than two (2) inches in diameter may require D.I.P., as well as an inspection by a Professional Engineer representing the municipality in which the service is being constructed.

b. Each water service shall be in its own trench with ten (10) feet (minimum) of horizontal separation from the sanitary service or main, and be at a minimum depth of five (5) feet. Where this is not possible, refer to the District's sewer and water separation detail and the Illinois Plumbing Code.

c. Water shut-offs shall be placed outside of driveways, curbs, sidewalks, or any surfaced area.

d. Fire lines, usually made of D.I.P., shall not be inspected by Fox Metro W.R.D.

9. The sanitary sewer contractors for all public sewer extension projects shall notify the District twenty-four (24) hours prior to the start of work. Notification shall be done via telephone at (630) 301-6882. For service connections, call twenty-four (24) hours in advance to schedule an inspection at (630) 301-6811 during the hours of 7:00 a.m. -3:00 p.m.

10. Inspections scheduled on the same day will be charged a fifty dollar (\$50) fee. To avoid additional fees, a one hour notification is required if you are running late or wish to cancel an inspection.

11. A fifty (50) dollar fee will be charged for return inspections (not including multifamily), failed inspections, failure to cancel, or incomplete at appointed time. Holiday and weekend inspections are available at the discretion of the District and are subject to a minimum fee of \$150.00, which is due prior to the inspection. Please call 630-301-6811 during the hours of 7:00 a.m. -3:00 p.m.

12. Exterior sanitary sewer repairs require a no charge repair permit. Schedule your inspection after you receive this permit. For after-hours emergency repairs, call 630-327-6811.

13. When calling for an inspection, a District permit number is required. An inspection cannot be scheduled without this number.

**Construction**

14. Full sized exterior cleanouts are required for all new building sewers.

15. Any building constructed with a basement shall have overhead building drains and sewers.

16. All construction, including bedding stone, fittings, pipe, chimney & manhole seals and testing must meet District specifications.

17. If any public water or sewer mainline is damaged or broken during excavation, you must notify the municipality having first jurisdiction immediately. Any broken or damaged municipal utility will require repair approval and inspection by that municipality. In addition, a repair permit and inspection by the District shall be required for any damaged water or sanitary service.

18. All sanitary sewer main construction must have an IEPA permit and plan approval letter on file with the District's engineering department prior to commencing with any construction. Please call our office at 630-301-6882 to verify that these items are on file.

19. A Final approved set of plans and specifications must be kept on the job site. Failure to comply with this provision may result in a fine and/or be considered cause to stop the job.

20. Any change from approved plans, specifications, or additions must be requested and become subject to approval by the District and governing municipality.

21. Where a new home is constructed on any lot where the building sewer is made of materials other than PVC, said service will be required to be removed and replaced to the public main or lined using only methods approved by the District.

22. The use of ductile or cast iron pipe is not allowed for the use of gravity sewers in the District. If D.I.P. or C.I.P. is proposed on your plans marked as 'FOR CONSTRUCTION', please contact the District's engineering department at (630) 301-6882.

23. No solvent-welded joints shall be allowed outside of the foundation wall.

24. The District must be contacted to check the sewer main before any individual or company rods a building sewer. This only applies in 'back up' situations to insure the main sewer is not surcharged.

25. Prior to core-drilling into any interceptor, the contractor shall call the District's Field Maintenance Department to verify the proper point at which to drill. Absolutely no 'crown' connections are allowed. All new connections are to be located on the interceptor at a point or angle no higher than forty-five (45) degrees or 1/1 from the horizontal point of the existing sewer.

26. All sanitary sewers shall be tested in accordance with Section 31-1.11 of the Standard Specifications for Water and Sewer Main Construction in Illinois. In addition, all manholes shall be vacuum tested (Manhole testing will be in accordance with ASTM-1244-93 or in accordance with the District's requirements). In case of testing specification conflict, where deeper manholes are constructed, the more stringent requirement will apply.

27. All existing sanitary interceptor (mains 15" in diameter or greater) manhole frames located within any proposed development will be required to be adjusted to grade. Under no circumstances may the amount of adjusting rings (two total) exceed eight (8) inches. Extreme care should be taken when working near all sanitary manholes.

28. Landscaping within any District easement is prohibited without review and subsequent plan approval by the District. It is vital for all Field Department personnel to be able to access the entire length of any interceptor easement for the purpose of maintaining the integrity of the sanitary sewer system or dealing with emergencies. Unless approved by the District, the easement shall be graded so that the ground surface does not exceed a six (6) percent gradient in any direction.

Questions relating to any District specification, rule or regulation, or those regarding a specific project, should be directed to either the engineering or field department at 630-301-6882.

**FOX METRO WATER RECLAMATION DISTRICT  
MANHOLE / SEWER PIPE MATERIALS AND INSTALLATION SPECIFICATIONS MATERIALS**

Rev. 3/26/18

**1. PIPE & FITTINGS**

Pipe and fittings used in sanitary sewer construction shall be polyvinyl chloride (PVC) pipe. PVC pipe and fittings dated over one-year-old shall not be permitted for use. No solvent-welded joints shall be allowed outside of the foundation wall of any building.

The types of PVC pipe and fittings that shall be used in the District include:

- Poly Vinyl Chloride (PVC) Sewer Pipe and Fittings (ASTM -SDR series), conforming to ASTM Numbers D-1784 (cell classification), D-3034, D-3212 (joint spec), and F-477 (gaskets).
- Poly Vinyl Chloride (PVC) Pressure Rated Pipe and Fittings (ASTM - SDR series), conforming to ASTM Numbers D-1784 (cell classification), D-2241, D-3139 (joint spec), and F-477 (gaskets).
- Poly Vinyl Chloride (PVC) Pressure Rated Pipe and Fittings (AWWA DR-series) conforming to AWWA C-900, AWWA C-905, and ASTM Numbers D-1784 (cell classification), D-3139 (joint spec), F-477 & F-913 (gaskets).

All PVC plastic pipe and fittings shall have a cell classification of 12454 as defined in ASTM D-1784 and shall have minimum pipe stiffness as shown below in Table 1. The required Standard Dimension Ratio (SDR) or Dimension Ratio (DR) for PVC pipe and fittings shall be selected based upon the depth of cover, as also shown in the table below:

DEPTH OF COVER	PIPE DIAMETER	MINIMUM THICKNESS	NATIONAL STANDARD	MINIMUM PIPE STIFFNESS
3.5'-<15'	6" - 12"	SDR 26	ASTM D-3034	115
3.5'-<20'	6" - 12"	SDR 21	ASTM D-2241	224
3.5'-<30'	6" - 12"	DR-18	AWWA C-900	364
3.5'-<30'	14"	DR 18	AWWA C-905	364

Fittings in sizes through twelve (12) inches shall have elastomeric joints and minimum socket depths as specified in each respective section. Fittings above twelve (12) inches shall be molded or fabricated with elastomeric joints in accordance with ASTM standards D-1784 and D-3139 incorporating the manufacturer's standard pipe bells and gaskets. Gaskets shall conform to ASTM F-477 and ASTM F-913.

The District reserves the right to approve/reject all pipe and fittings on a case-by-case basis.

**2. BEDDING, HAUNCHING, AND INITIAL BACKFILL**

Bedding material shall be CA-7 Class 1A, as outlined in ASTM D-2321 and shall be certified by the manufacturer and approved by the District prior to installation, to have the following characteristics:

- Description: Shall be crushed stone or crushed gravel, as produced from crushing by mechanical means.
- Gradation: Shall meet the IDOT gradation of CA-7, Class 1A.
- Plasticity Index: Shall meet a plasticity index of 0 to 4 percent as determined by the method given in AASHTO T 90.
- Specific Gravity: Shall have a specific gravity (dry) of greater than 2.45.

**LABORATORY TEST**

The District reserves the right to require a contractor to submit certified copies of all reports of tests conducted by an independent laboratory before installation of PVC plastic pipe. Tests shall be conducted in accordance with Standard Method of Test for 'External Loading Properties of Plastic Pipe by Parallel-Plate Loading' per ASTM D2412.

**PIPE INSTALLATION AND FIELD TESTING**

**1. INSTALLATION**

If the invert of any overhead sewer exceeds two (2) feet above the footing, plate compaction of the CA-7 Class 1A aggregate shall be required in twelve (12) inch lifts.

Trench widths should be stable or supported, provide a width sufficient, but no greater than necessary to ensure working room to properly and safely place haunching and other embedment materials. The minimum trench width shall be 32 plus the outside diameter of the pipe and the maximum trench width shall be 48 plus the outside diameter of the pipe.

Pipe size shall be a minimum of eight (8) inches for public sewers and six (6) inches for building sewers.

Pipes shall be laid in a manner which provides uniform support over the entire length. No blocking of any kind shall be used to adjust the pipe to grade except when embedment concrete is used. Bedding shall be a minimum of six (6) inches in depth. The bedding material shall be placed and worked in around pipe by hand to provide uniform support, then around and over the crown of the pipe by a minimum of twelve (12) inches. The granular embedment material shall be placed and consolidated along the full width of the trench. The contractor shall be required to install the pipe in such a manner that the diametric deflection of the pipe shall not exceed five (5) percent.

PVC transition fittings shall be used in all new construction when joining PVC pipes of different outside dimensions.

Service connections to new mains shall be with a tee/wye fitting with a six (6) inch branch and shall connect to the main at a (max.) forty-five (45) degree angle. Where no tee/wye exists, an Inserta Tee brand fitting shall be required.

Cast iron clean out covers conforming to ASTM A-48 Class 30 or equivalent shall be required for all sanitary sewer services located in any paved surface. Locations of said covers shall be limited to a spacing of no greater than one hundred (100) feet or that constructed per the approved engineering plan.

The use of ductile iron & cast iron pipe is not allowed for the use of gravity sewers in the District.

Either 4" X 6" rubber or non-shear couplings shall be used to connect the building drain to the building sewer. If using a rubber fitting, the four-inch pipe shall be inserted six to twelve inches inside of the six inch building sewer.

Whether any grease removal system (GRS) is newly constructed or retrofitted to an existing building, all District guidelines pertaining to minimum slope and cover depth for sanitary construction shall be strictly adhered to.

All building drains/sewers shall be overhead or 'hung' through the wall of any basement.

Full-sized cleanouts shall be installed five (5) feet from the foundation wall.

**2. TESTING**

Before final acceptance, all public sewers shall be tested in accordance with Section 31-1.12 of the Standard Specifications for Water and Sewer Main Construction in Illinois' (see item #2 under 'Manhole Installation and Field Testing' below for vacuum testing).

All pipelines constructed of polyvinyl chloride (PVC) shall be subject to air exfiltration, deflection, vacuum and televising tests.

The deflection test shall be performed no sooner than thirty (30) days of the backfilling operation and shall consist of measuring the pipe for vertical ring deflection. Maximum ring deflection of the pipeline under load shall be limited to five (5) percent of the internal pipe diameter. All pipes exceeding this deflection shall be considered to have reached the limit of its serviceability and shall be re-laid or replaced by the contractor at their sole expense.

The cost of all deflection testing shall be borne by the contractor and shall be accomplished by pulling a mandrel, sphere, or pin-type 'go / no go' device, with a diameter equal to ninety-five (95) percent of the flexible pipe inside diameter of the flexible pipe through the pipeline. Pipe shall be constructed so that the internal diameter does not decrease by more than five (5) percent.

All sanitary sewer (public or private) having a diameter of eight (8) inches or greater shall be televised by the District. Said televising work is scheduled once all sanitary testing (air & vacuum) has been received by the District. Any defects in said sewer shall be required to be excavated and repaired at the contractor's or developer's sole expense. Caution should be taken before constructing roads, curbs, sidewalks or any other infrastructure, whether it is above or below the ground surface. It is the responsibility of the utility contractor and the developer to contact the District prior to installing any of these utilities or infrastructure. Repairs to defective sanitary sewers shall be performed regardless of the status of other construction or extraneous expenses.

**MANHOLE INSTALLATION AND FIELD TESTING**

**1. INSTALLATION**

All manhole castings, adjusting rings and manhole sections shall be set in butyl rope or approved equal. The inside joints of manhole sections, adjusting rings, and frame shall not be mortared. However, the area between the pipe and flow channel shall be filled with cement mortar to provide a flush smooth surface.

Each manhole cone and barrel section joint shall also be externally sealed with a #6" or #9" wide (min.) sealing band of rubber and mastic (see 'REPAIRS' below). The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, \*\*type II or \*type III.

Pipe connections to all manholes through openings (cast or core-drilled) shall be provided with a flange rubber water-tight gasket conforming to ASTM C-923, 'Standard Specifications for Resilient Connectors between Reinforced Concrete Manhole Structures and Pipes'.

A maximum of eight (8) inches of adjusting rings (2 total rings) is allowed. The frame, chimney, and top 'lip' of the cone section shall be required to be sealed with a chimney seal.

Only 'Adaptor-Seal', 'Infi-Shield', Canusa (Wrapid Seal), or an approved equal will be allowed. Do not use unapproved seals.

When a new manhole is approved to be constructed on an existing public sewer, only Cascade brand (CR style), or approved equal, stainless steel repair clamps shall be installed. Only repair clamps conforming to ANSI/NSF-61 shall be allowed. This work shall be inspected by the District.

**2. TESTING**

Each new manhole shall be vacuum tested after manhole is at finished grade. All lift holes shall be plugged with a non-shearing gasket. The manhole frame, adjusting rings and chimney seals shall be in place when testing. No grout shall be placed in the horizontal joints before, after or during testing in order to achieve a passing test result. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole. A vacuum of ten (10) inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to nine (9) inches of mercury (Hg) for the following time periods for each size manhole:

\*Forty-eight (48) inches Diameter - sixty (60) seconds

\*Sixty (60) inches Diameter - seventy-five (75) seconds

\*Seventy-two (72) inches Diameter - ninety (90) seconds

\*Manhole testing will be in accordance with ASTM-1244-93 or in accordance with District requirements. In case of conflict, the more stringent requirement will apply (e.g. where deeper manholes are constructed).

The contractor shall provide all material and equipment necessary for testing. Should the manhole fail the vacuum test, the structure shall be disassembled to a point that said leak can be repaired with butyl rope. After the repair is complete, the manhole shall be re-tested until a satisfactory result is obtained.

**REPAIRS & REHABILITATION OF EXISTING PIPES AND MANHOLES**

**1. PIPES**

Pipe connections of dissimilar materials where no hub exists shall be made with a non-shear connector.

Where a new home is constructed on any lot where the sanitary service is made of rigid materials such as vitrified clay, cast iron, or ductile iron, said service will be required to be removed or lined to the public main. Any existing sanitary sewer main or service, which is required to be lined, shall be repaired with a cured-in-place pipe (CIPP) meeting the requirements of ASTM F1216, D5813, D790 and D2990. Said CIPP shall be installed using the inversion method only. Hot water or steam shall be used to cure all liners.

Building sewers shall be permanently abandoned using one of following two methods.

1. Removed to within one (1) foot of the public sewer and plugged using a mechanical plug and mortar. This is the required method. If this is not feasible, see item two below.
2. The incoming building sewer shall be sealed within the public sewer with a four (4) foot minimum length cured in place pipe (C.I.P.P.) liner with hydrophobic gaskets.

Where a newly constructed public sewer needs to be repaired due to damage having occurred during construction, Cascade brand (CR style), or approved equal, stainless steel repair clamps shall be required. Only repair clamps conforming to ANSI/NSF-61 shall be allowed. When the damage occurs within thirty (30) feet of a manhole, the contractor shall remove and replace the damaged main from the nearest joint to the manhole.

**2. MANHOLES**

Each manhole, which has been disturbed in any way, including being raised or lowered, should be cleaned and dried before re-sealing. Each cone and barrel section joint shall require a double-layer of butyl rope and also be externally sealed with a #6" or #9" wide (min.) sealing band of rubber and mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, \*\*type II or \*type III.

A maximum of eight (8) inches of adjusting rings (2 total rings) is allowed in any repair. The frame and chimney of the cone section shall be required to be sealed with a chimney seal. Only 'Adaptor-Seal', 'Infi-Shield', Canusa (Wrapid Seal), or approved equal will be allowed.

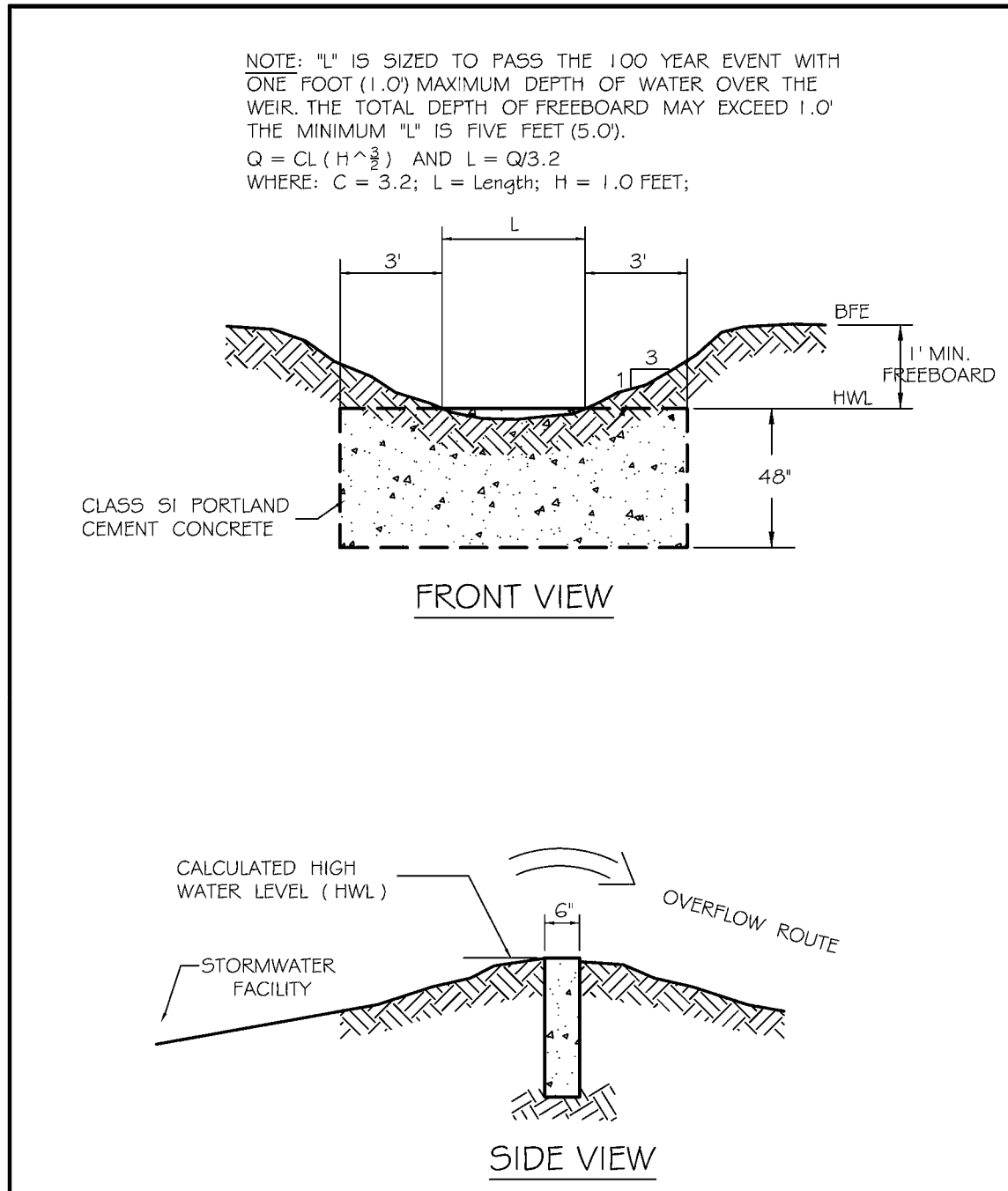
Printed: November 30, 2018 @ 1:25 PM By: Larry Nolan - Tab: 16 - FM Gen Notes (22x34)

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

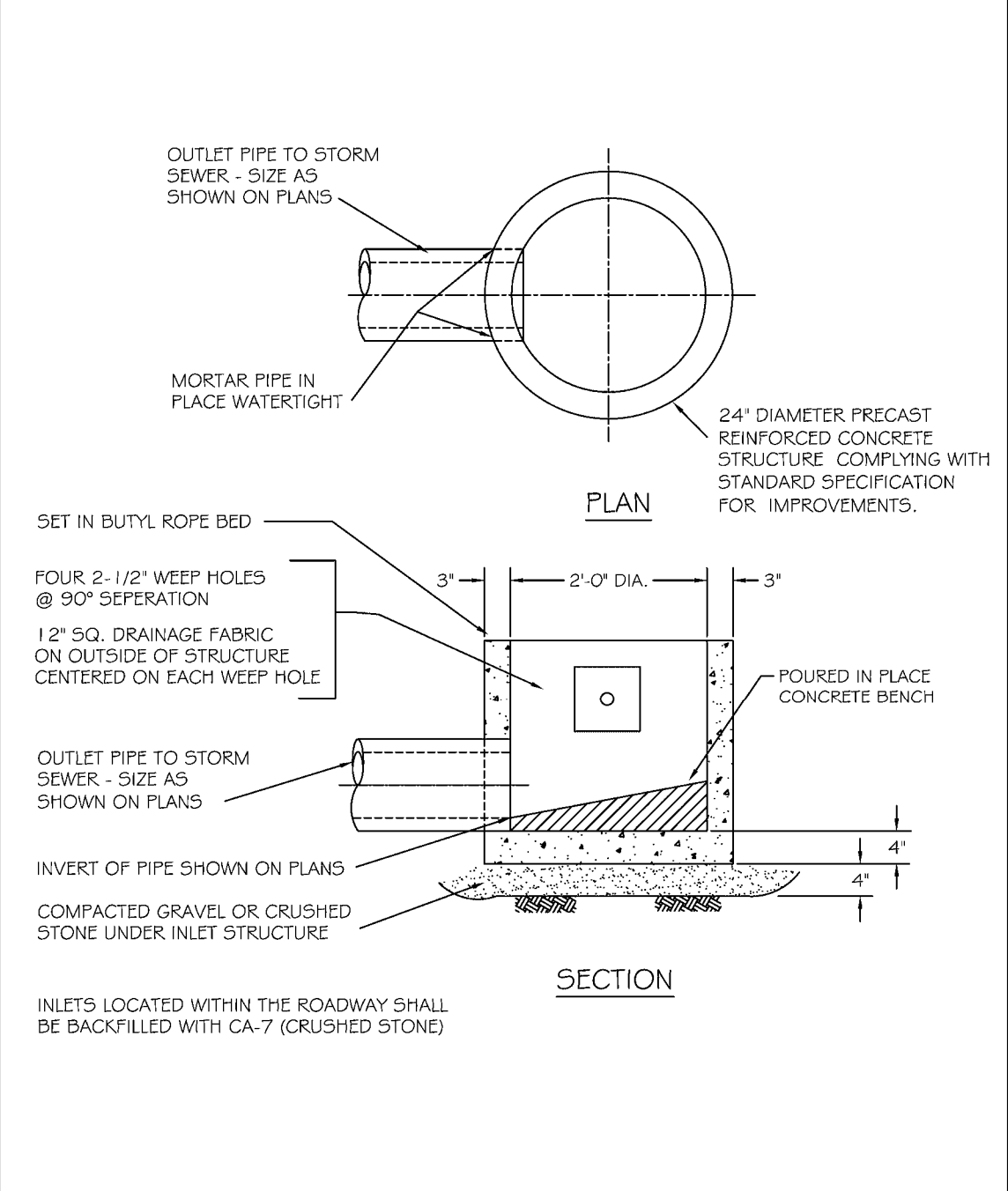
NO.	DATE	REVISIONS
9	11/30/18	PER DUPLICATE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER COA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS</





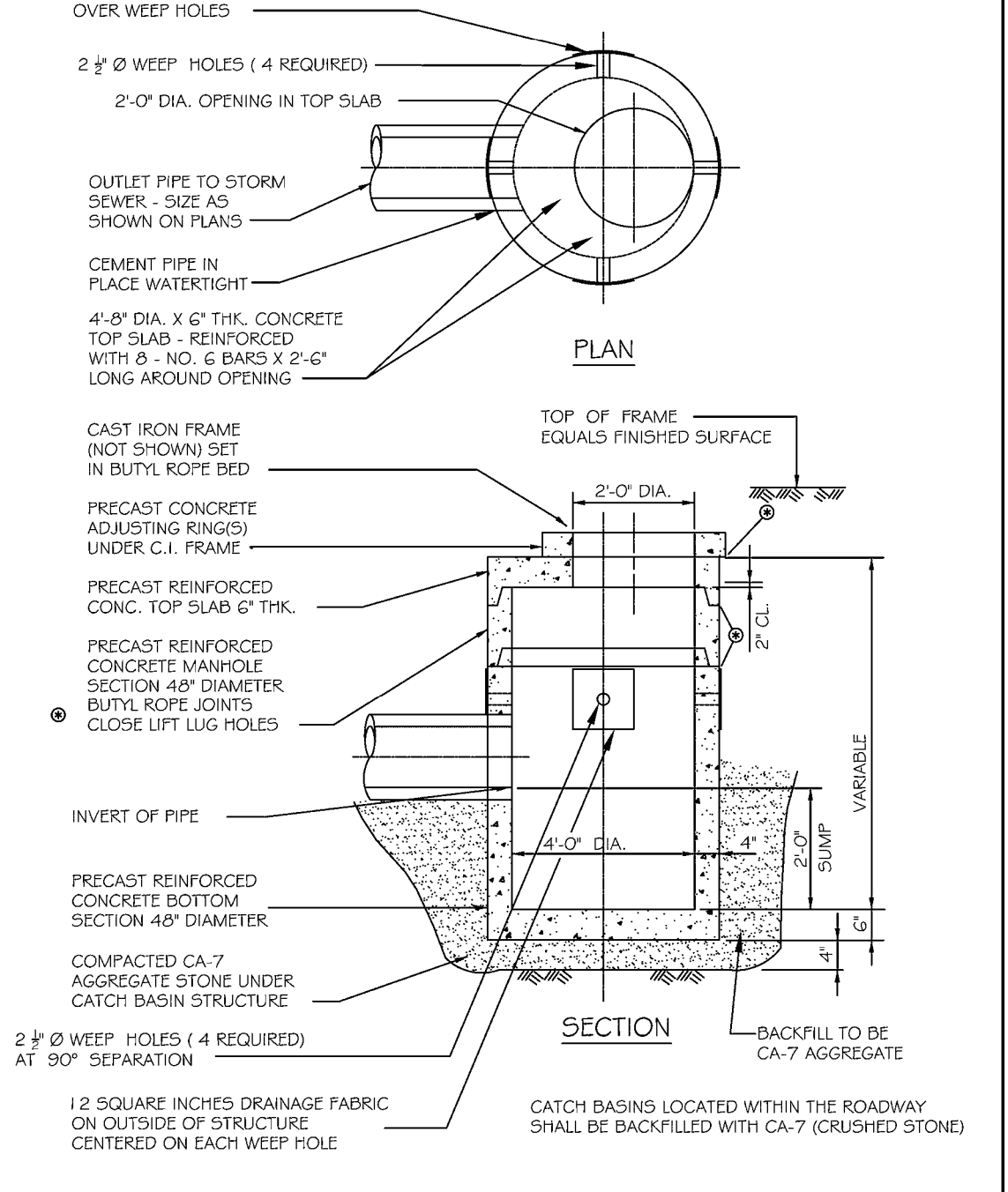
REVISIONS		CONCRETE OVERFLOW WEIR	
DATE	BY	SCALE	CHECKED
02/26/13	DG	NOT TO SCALE	DF
DATE	DRAWN	DATE	DRAWN
1/04	SAZ	1/04	SAZ

EXHIBIT IV-C-3



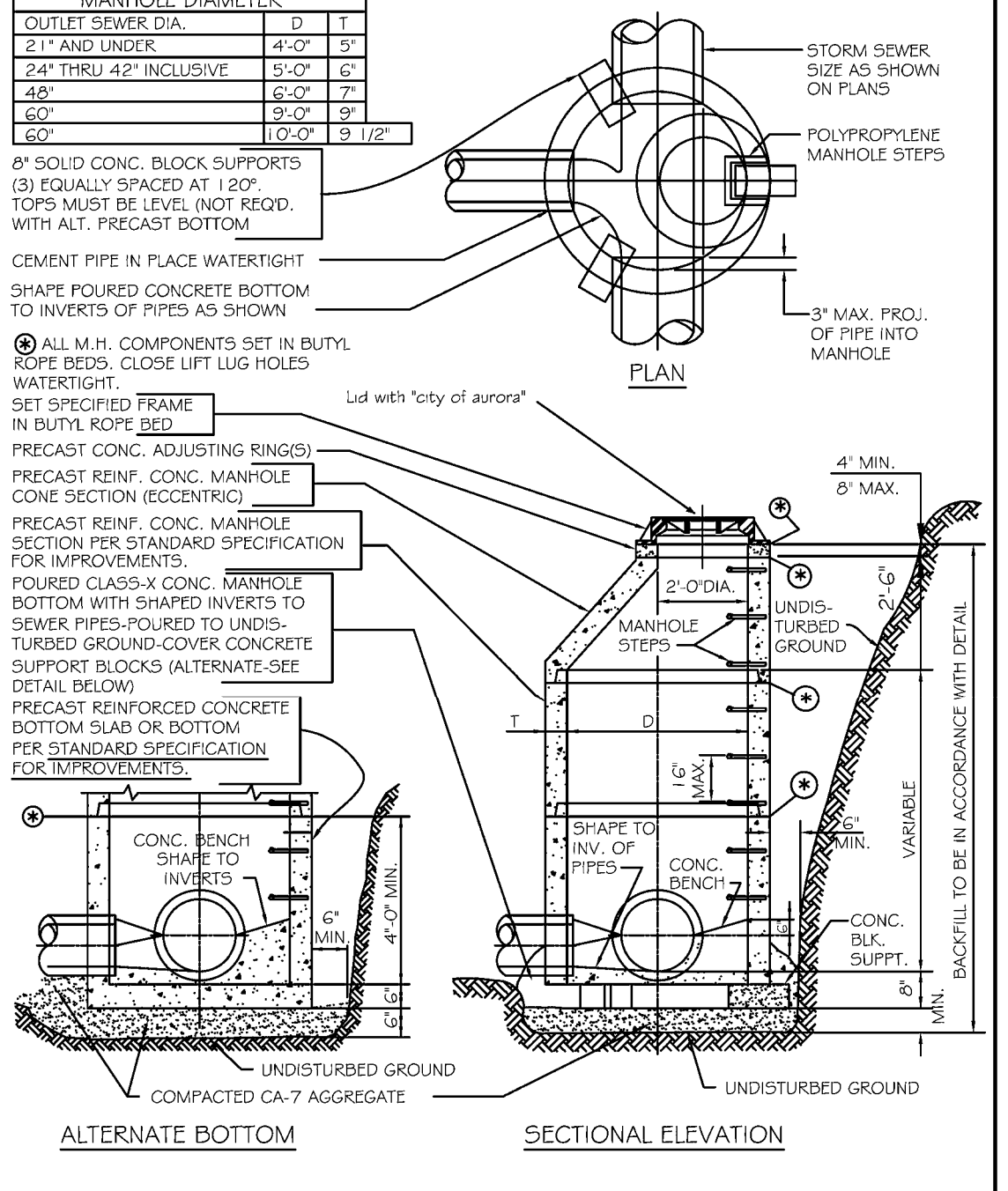
REVISIONS		STORM INLET, TYPE A DETAIL	
DATE	BY	SCALE	CHECKED
03/26/11	JTD	NOT TO SCALE	DF
DATE	DRAWN	DATE	DRAWN
1/04	NM	1/04	NM

EXHIBIT III-A-5



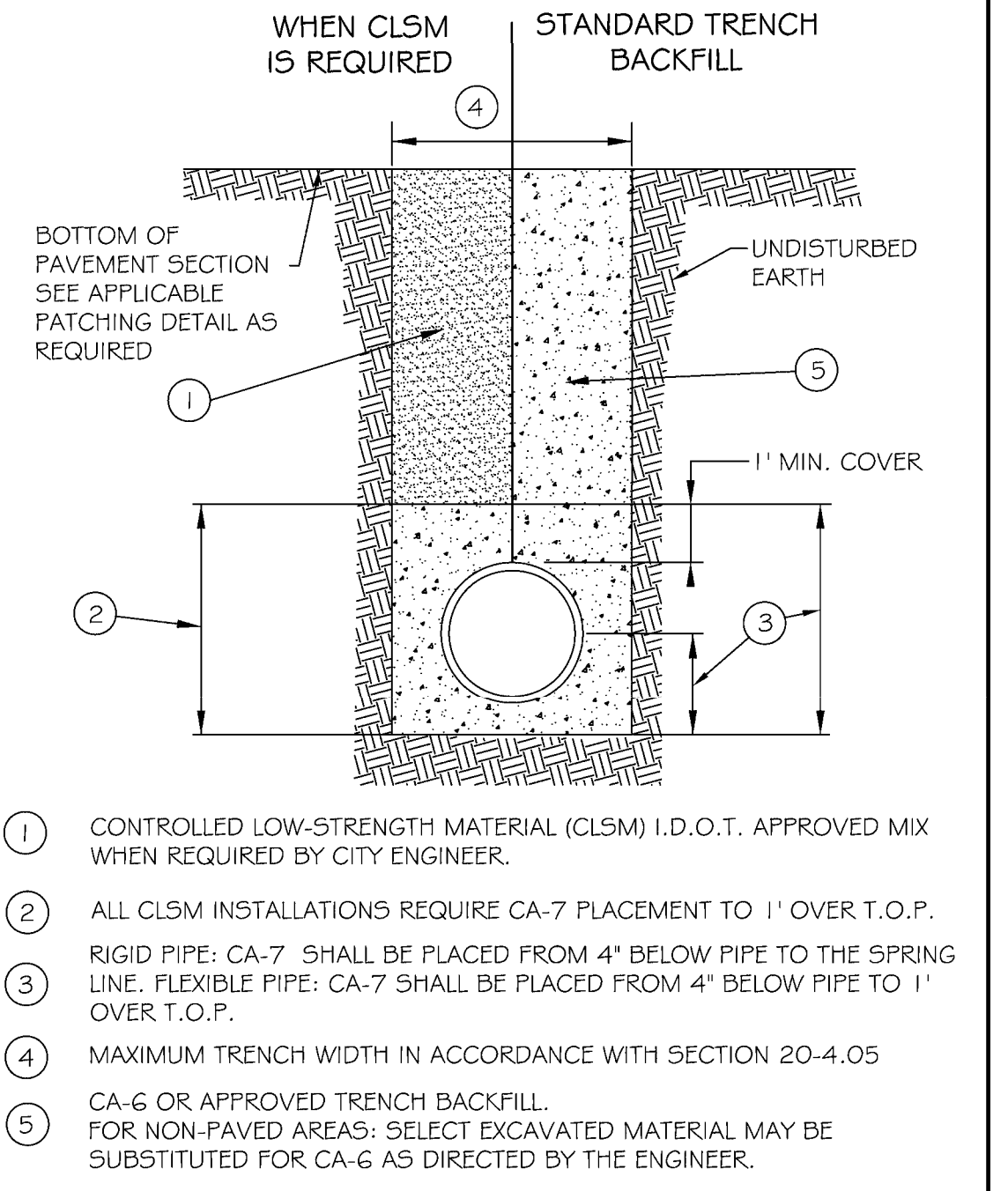
REVISIONS		CATCH BASIN TYPE B	
DATE	BY	SCALE	CHECKED
03/26/11	JTD	NOT TO SCALE	DF
DATE	DRAWN	DATE	DRAWN
1/04	NM	1/04	NM

EXHIBIT III-A-4



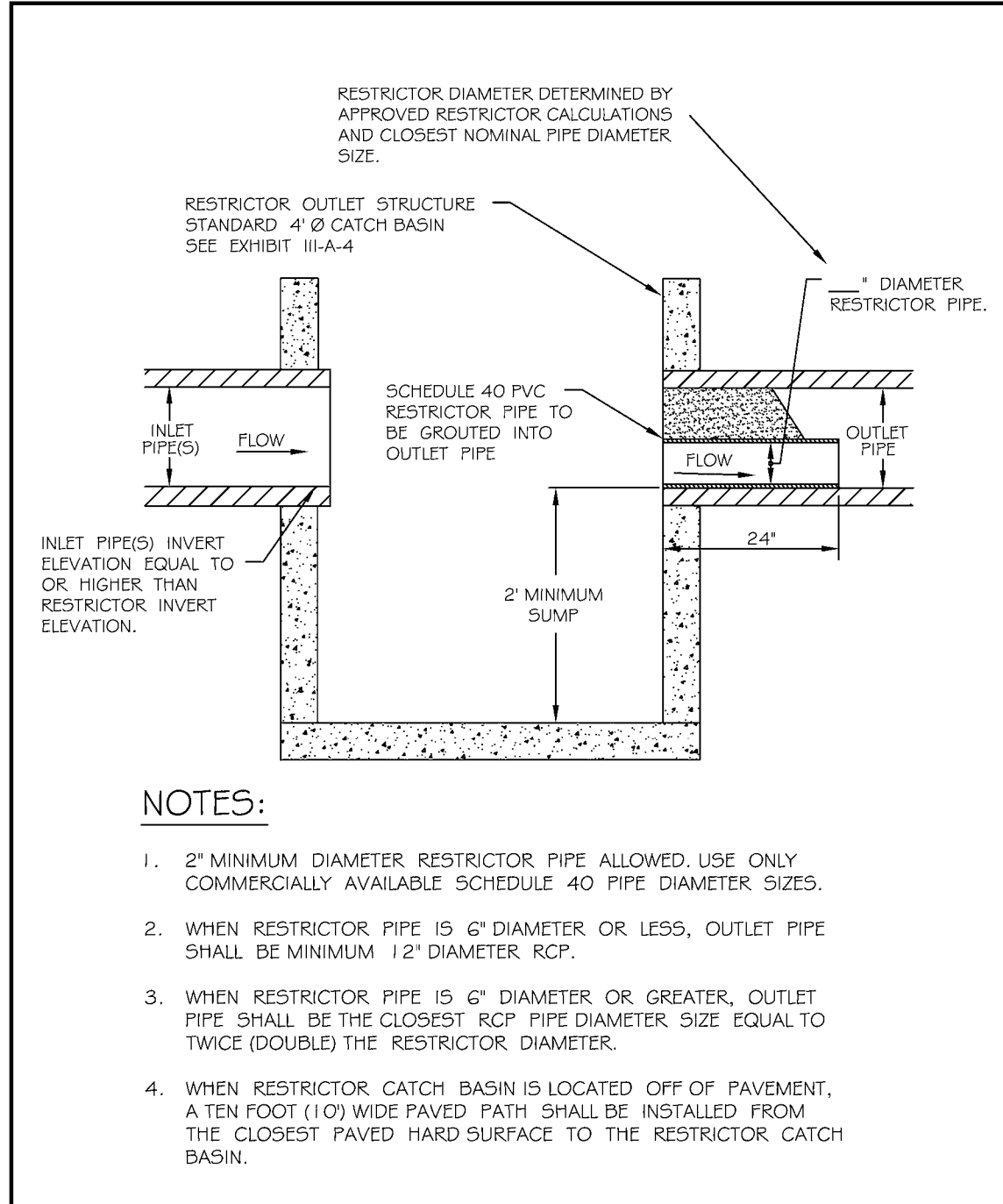
REVISIONS		STORM MANHOLE, TYPE A DETAIL	
DATE	BY	SCALE	CHECKED
01/20/14	dg	NOT TO SCALE	DF
DATE	DRAWN	DATE	DRAWN
1/04	NM	1/04	NM

EXHIBIT III-A-3



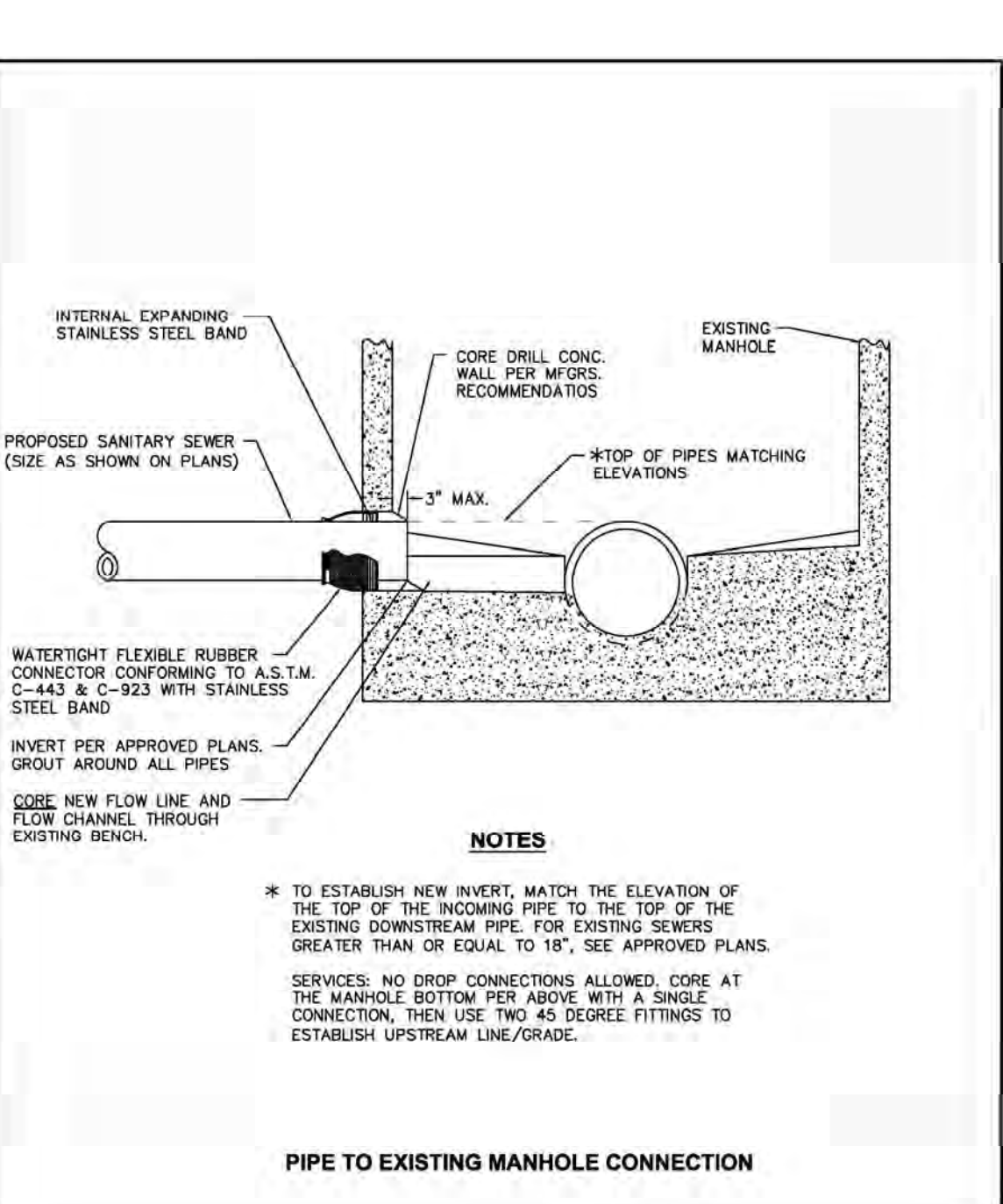
REVISIONS		SEWER TRENCH DETAIL PAVED & UNPAVED	
DATE	BY	SCALE	CHECKED
01/20/14	dg	NOT TO SCALE	LA
DATE	DRAWN	DATE	DRAWN
1/04	DG	1/04	DG

EXHIBIT III-A-1



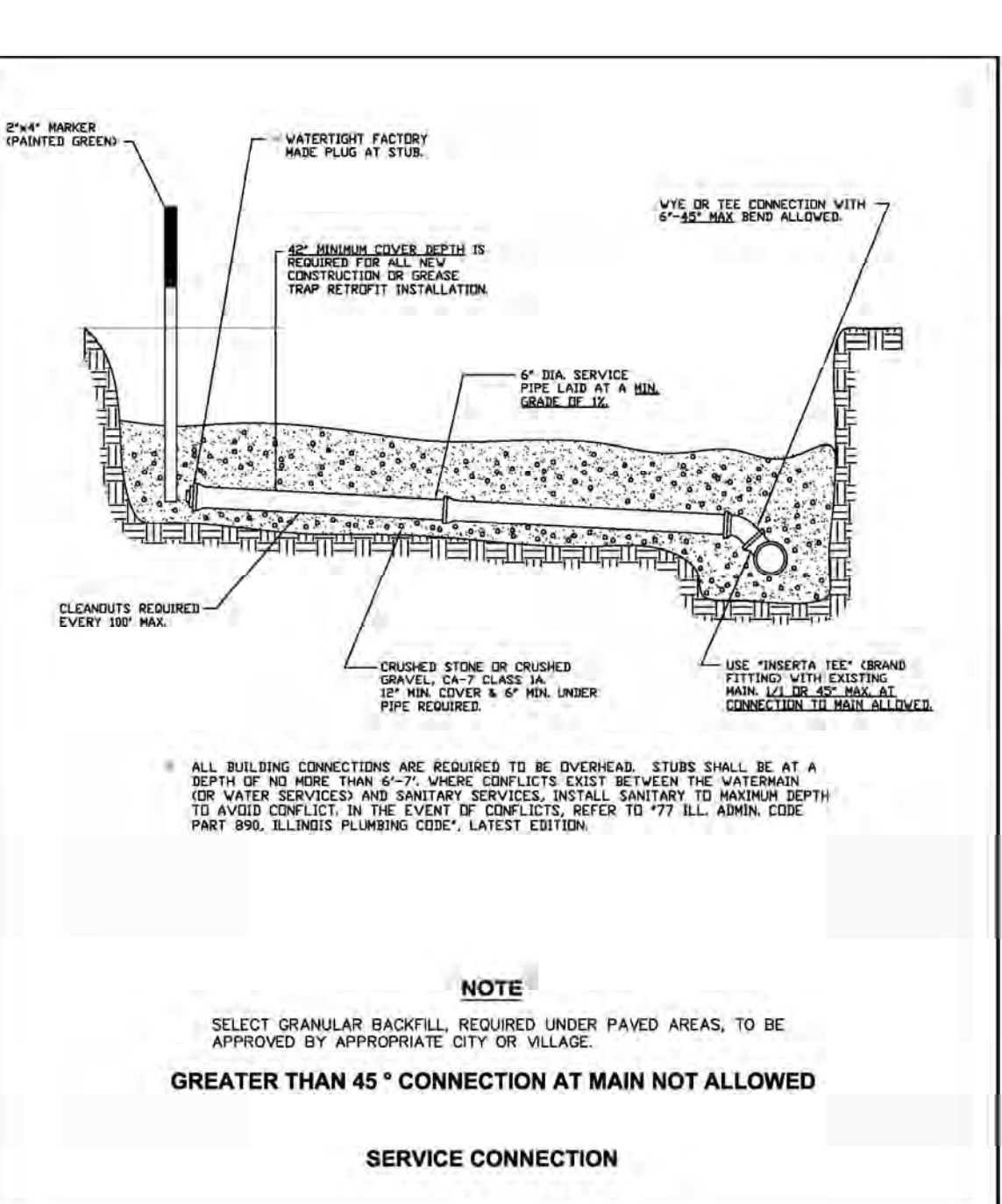
REVISIONS		RESTRICTOR CATCH BASIN	
DATE	BY	SCALE	CHECKED
11/20/10	ST	NONE	DF
01/20/11	JTD	DATE	DRAWN
01/23/13	DS	1/20/04	NM

EXHIBIT IV-C-4



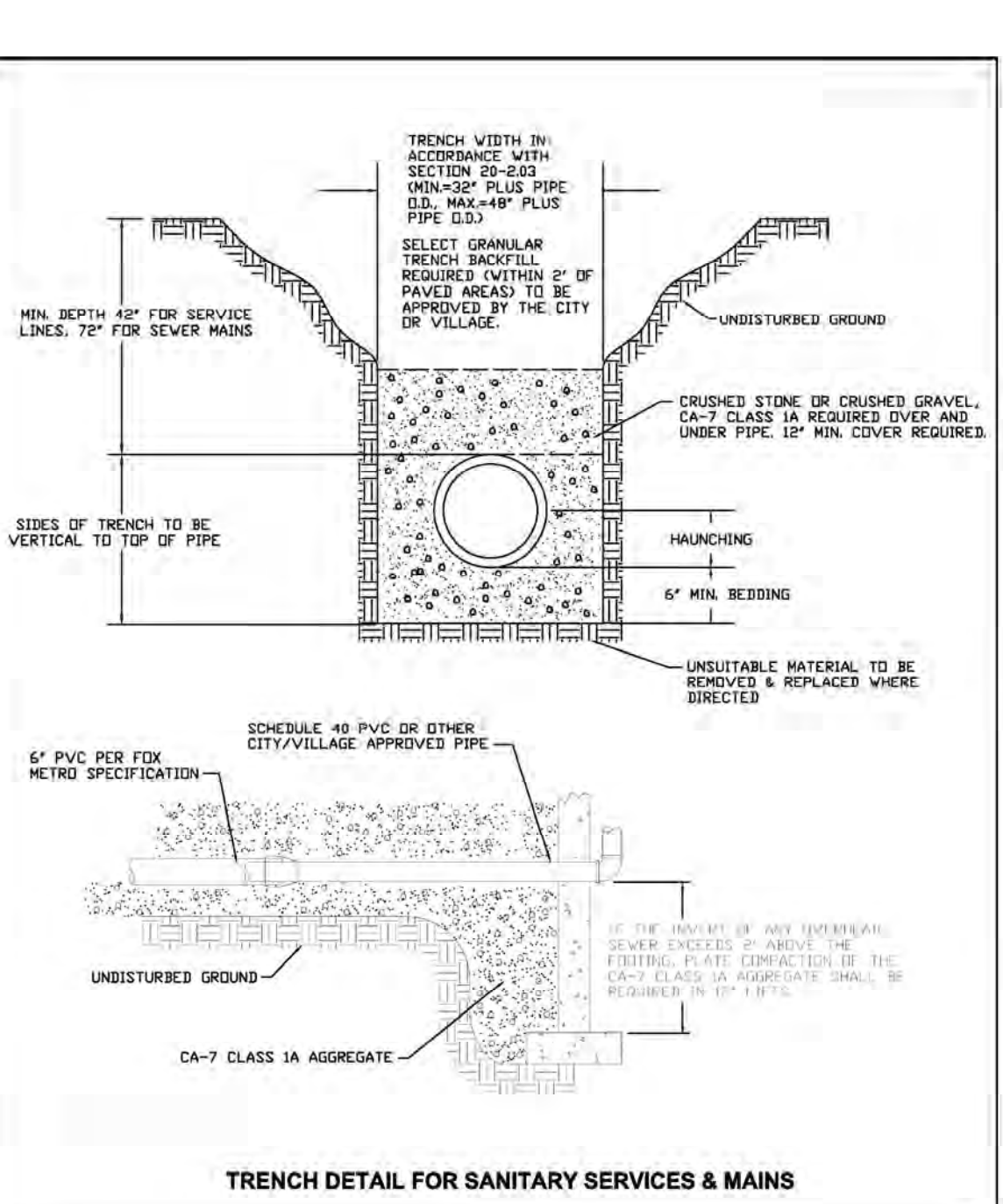
DESIGNED		REVISION	
FMWRD	K2	11/30/18	PER DUPAGE D.O.T. COMMENTS
DRAWN	K2	11/08/18	REVISED SITE PLAN PER COA COMMENTS
APPROVED	KZ, MF	10/01/18	REVISED SANITARY ALIGNMENT
DATE	05-15-00	5/30/18	PER CITY COMMENTS
SCALE	NIS	5/16/18	PER CITY AND FOX METRO COMMENTS
SHEET	1	CAD DWG.	REVISION
OF	1	JOB NO.	G

Fox Metro Water Reclamation District



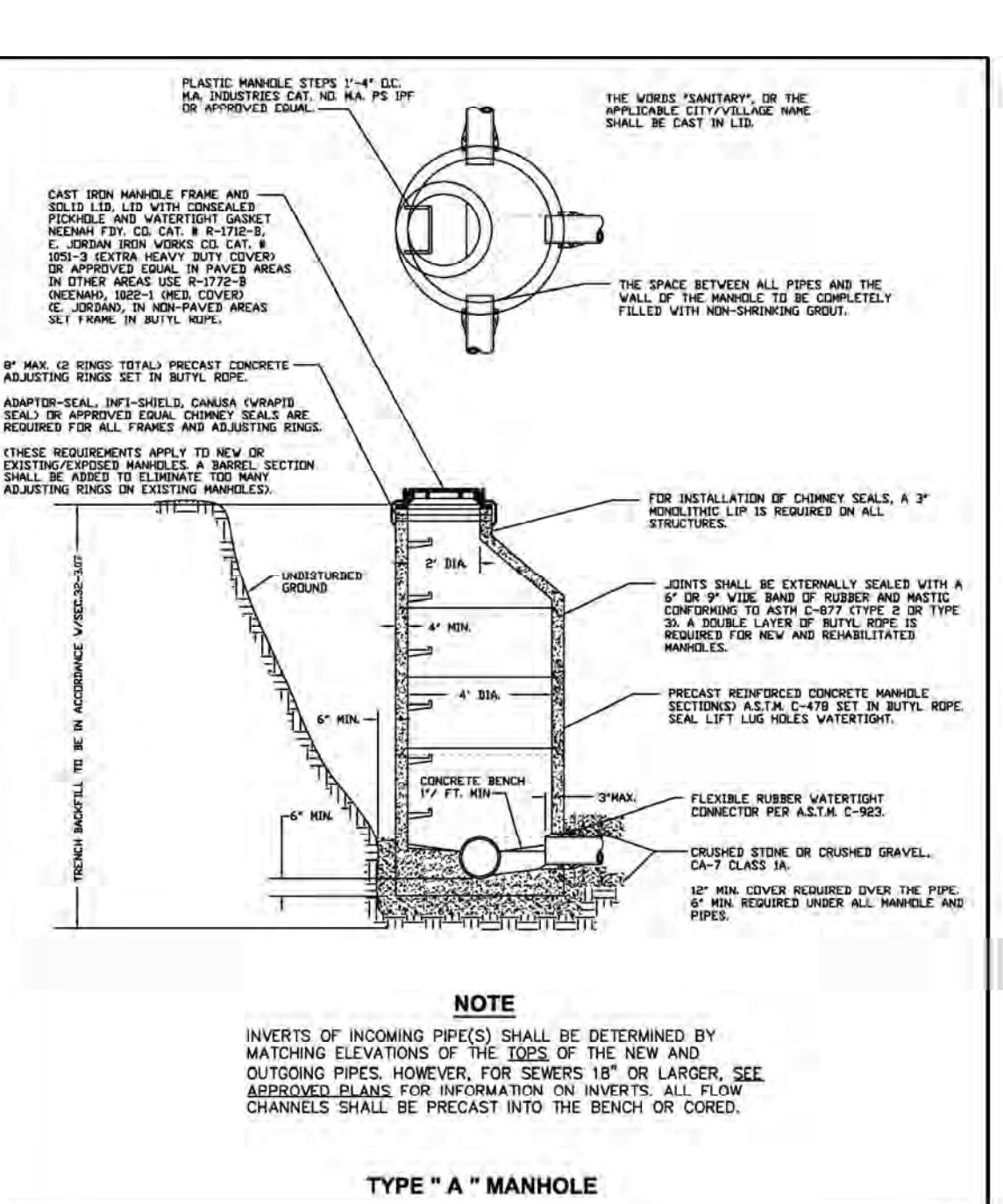
DESIGNED		REVISION	
FMWRD	K2	11/30/18	PER DUPAGE D.O.T. COMMENTS
DRAWN	K2	11/08/18	REVISED SITE PLAN PER COA COMMENTS
APPROVED	KZ, MF	10/01/18	REVISED SANITARY ALIGNMENT
DATE	05-12-00	5/30/18	PER CITY COMMENTS
SCALE	NIS	5/16/18	PER CITY AND FOX METRO COMMENTS
SHEET	1	CAD DWG.	REVISION
OF	1	JOB NO.	H

Fox Metro Water Reclamation District



DESIGNED		REVISION	
FMWRD	K2	11/30/18	PER DUPAGE D.O.T. COMMENTS
DRAWN	K2	11/08/18	REVISED SITE PLAN PER COA COMMENTS
APPROVED	KZ, MF	10/01/18	REVISED SANITARY ALIGNMENT
DATE	05-12-00	5/30/18	PER CITY COMMENTS
SCALE	NIS	5/16/18	PER CITY AND FOX METRO COMMENTS
SHEET	1	CAD DWG.	REVISION
OF	1	JOB NO.	F

Fox Metro Water Reclamation District



DESIGNED		REVISION	
FMWRD	K2	11/30/18	PER DUPAGE D.O.T. COMMENTS
DRAWN	K2	11/08/18	REVISED SITE PLAN PER COA COMMENTS
APPROVED	KZ, MF	10/01/18	REVISED SANITARY ALIGNMENT
DATE	05-12-00	5/30/18	PER CITY COMMENTS
SCALE	NIS	5/16/18	PER CITY AND FOX METRO COMMENTS
SHEET	1	CAD DWG.	REVISION
OF	1	JOB NO.	I

Fox Metro Water Reclamation District

30, 2018 @ 1:26 PM By: Larry Nolan - Tab: 17 - FM Details (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

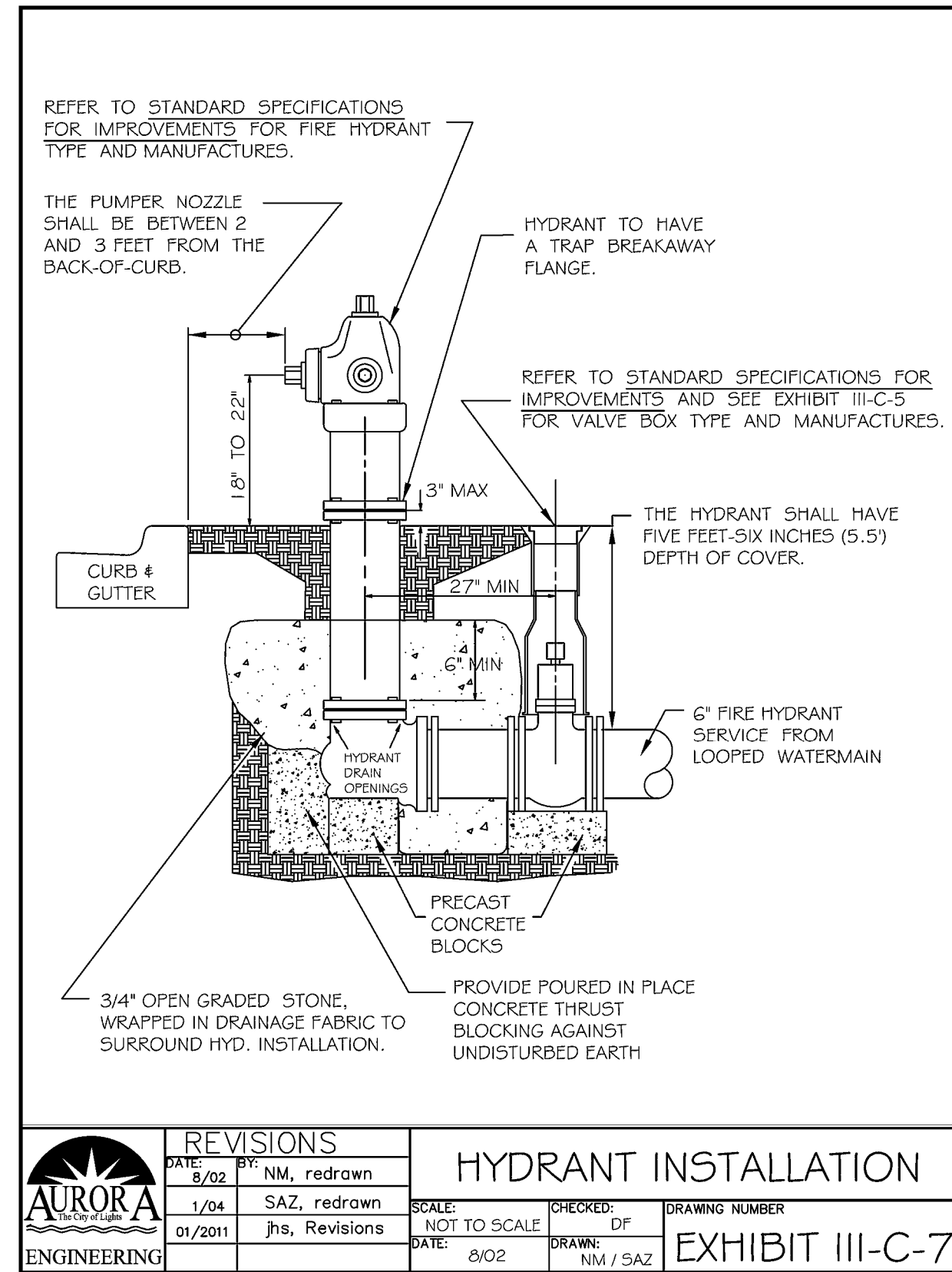
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER COA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
 EO LA ROAD SITE  
 AURORA, ILLINOIS

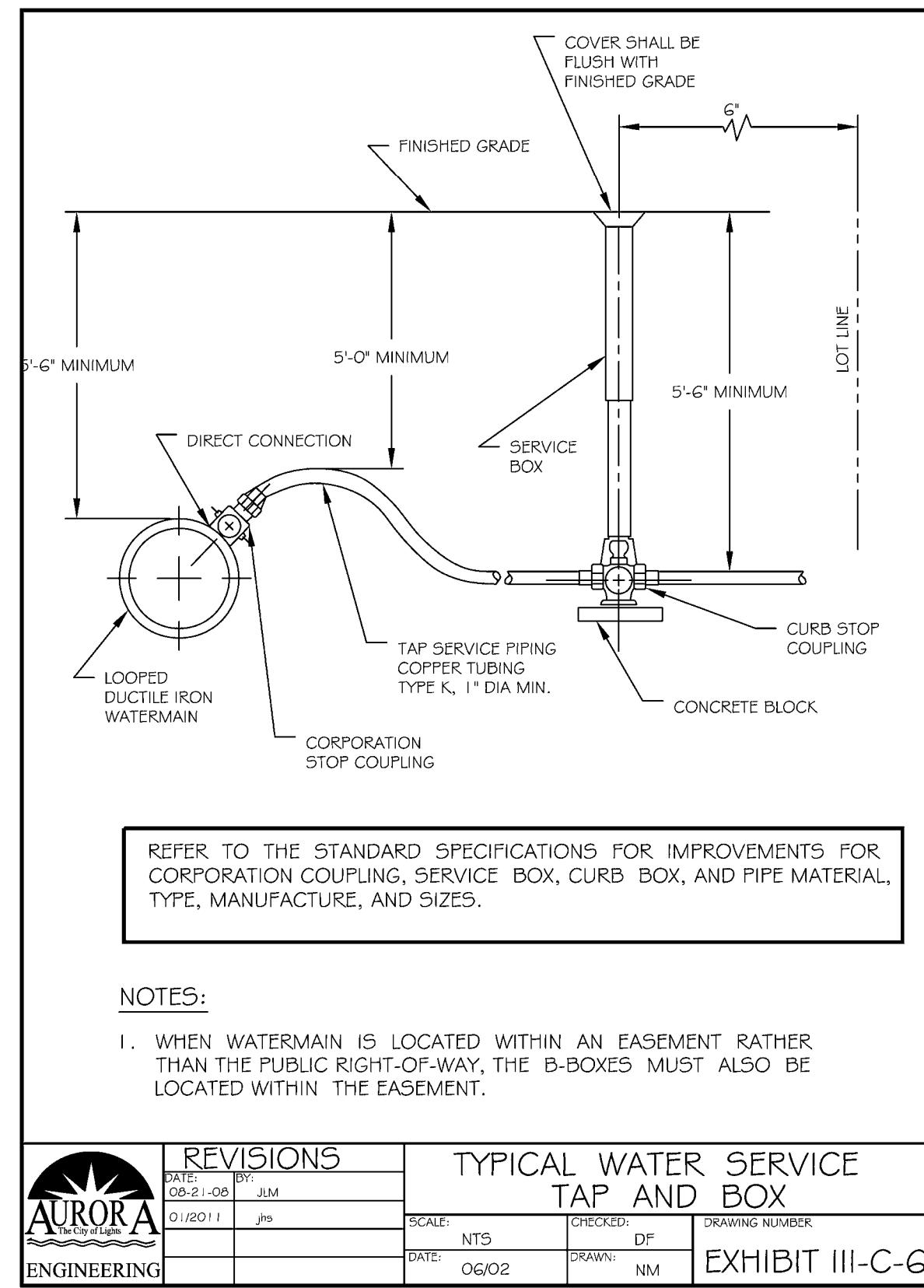
**FOX METRO AND SITE DETAILS**

DATE:	DECEMBER 2018
PROJECT NO.:	P16039
FILE:	P16039-COVER
SHEET	17 OF 25

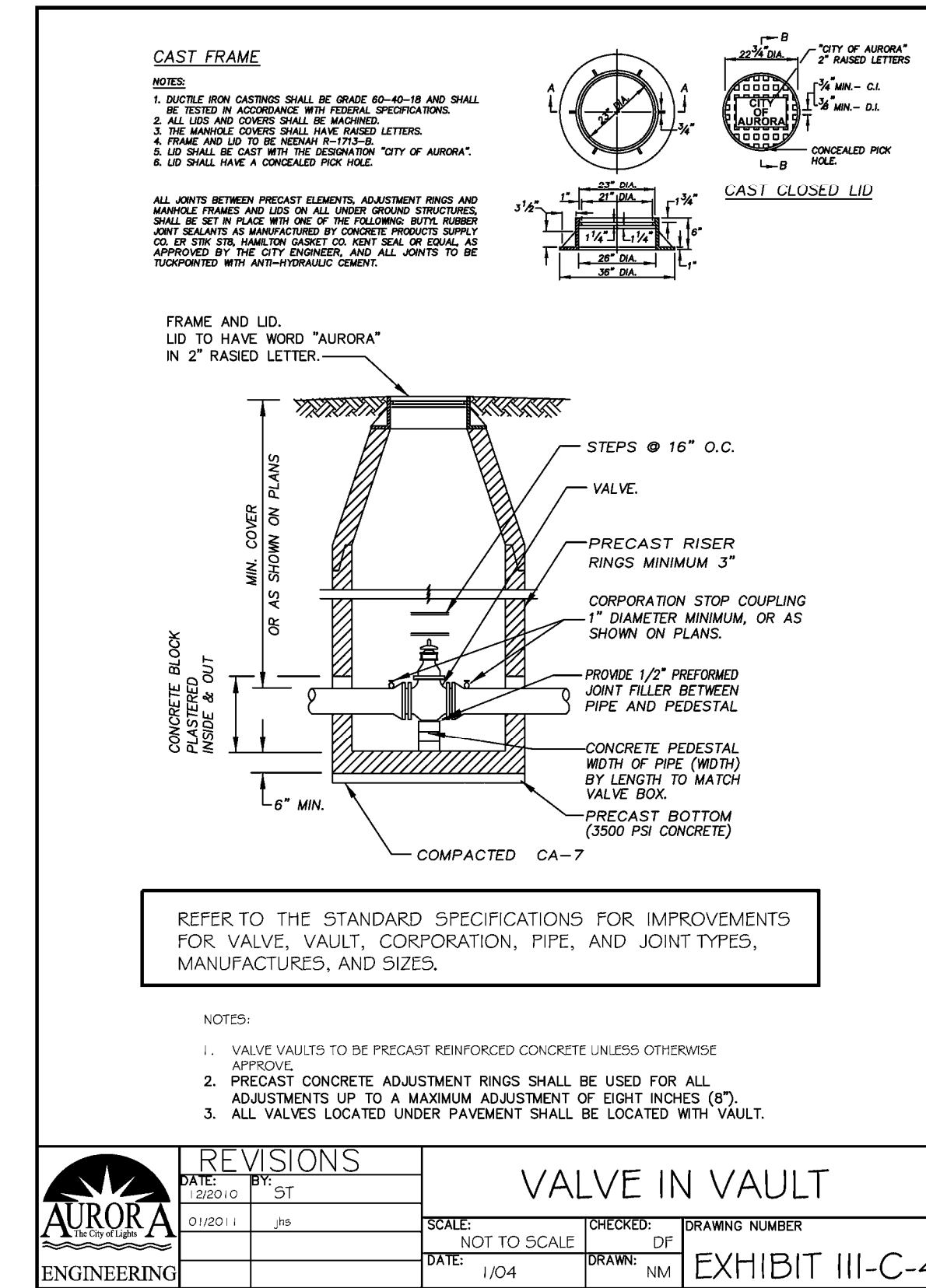
Path: \\S05KPR01\FP\_6039\DWG\_FINAL\_ENG\FP\_6039-COVER



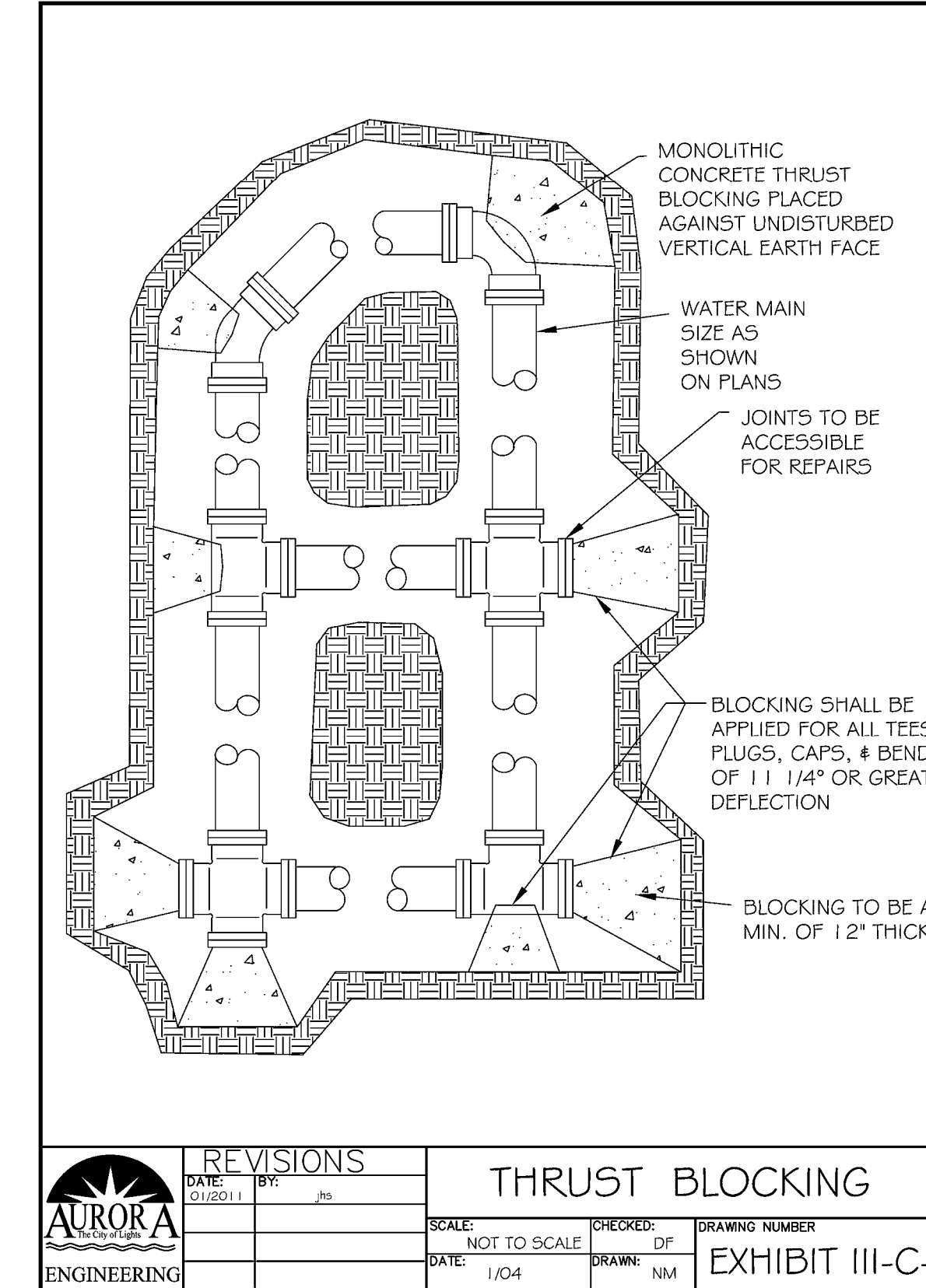
REVISIONS		HYDRANT INSTALLATION	
DATE: 9/02	BY: NM, redrawn	SCALE: NOT TO SCALE	CHECKED: DF
DATE: 1/04	BY: SAZ, redrawn	DATE: 8/02	BY: NM / SAZ
DATE: 07/2011	BY: Jhs, Revisions	DRAWING NUMBER: EXHIBIT III-C-7	



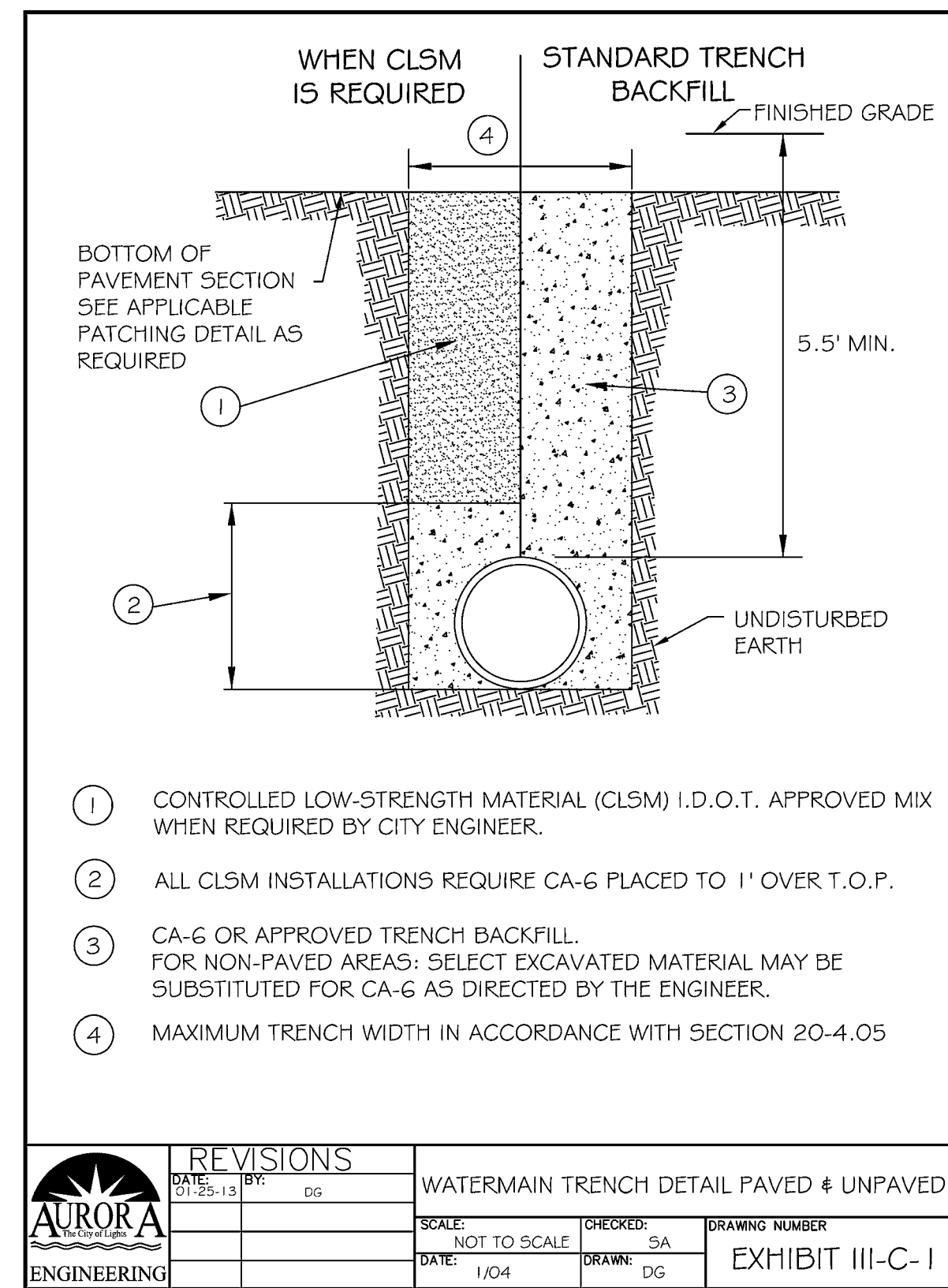
REVISIONS		TYPICAL WATER SERVICE TAP AND BOX	
DATE: 08-21-08	BY: JM	SCALE: NTS	CHECKED: DF
DATE: 01/2011	BY: Jhs	DATE: 06/02	BY: NM
DRAWING NUMBER: EXHIBIT III-C-6			



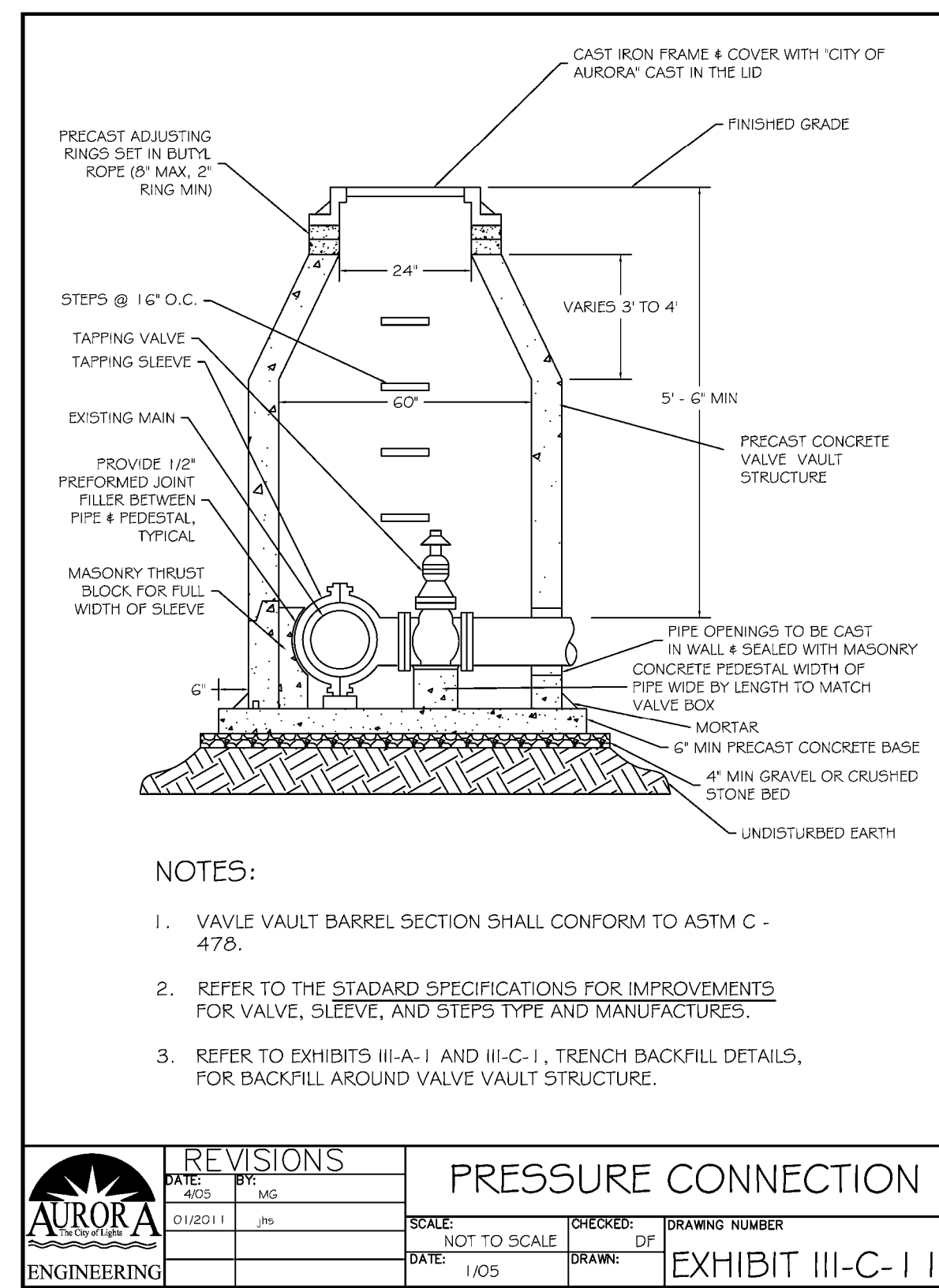
REVISIONS		VALVE IN VAULT	
DATE: 10/2010	BY: ST	SCALE: NOT TO SCALE	CHECKED: DF
DATE: 01/2011	BY: Jhs	DATE: 1/04	BY: NM
DRAWING NUMBER: EXHIBIT III-C-4			



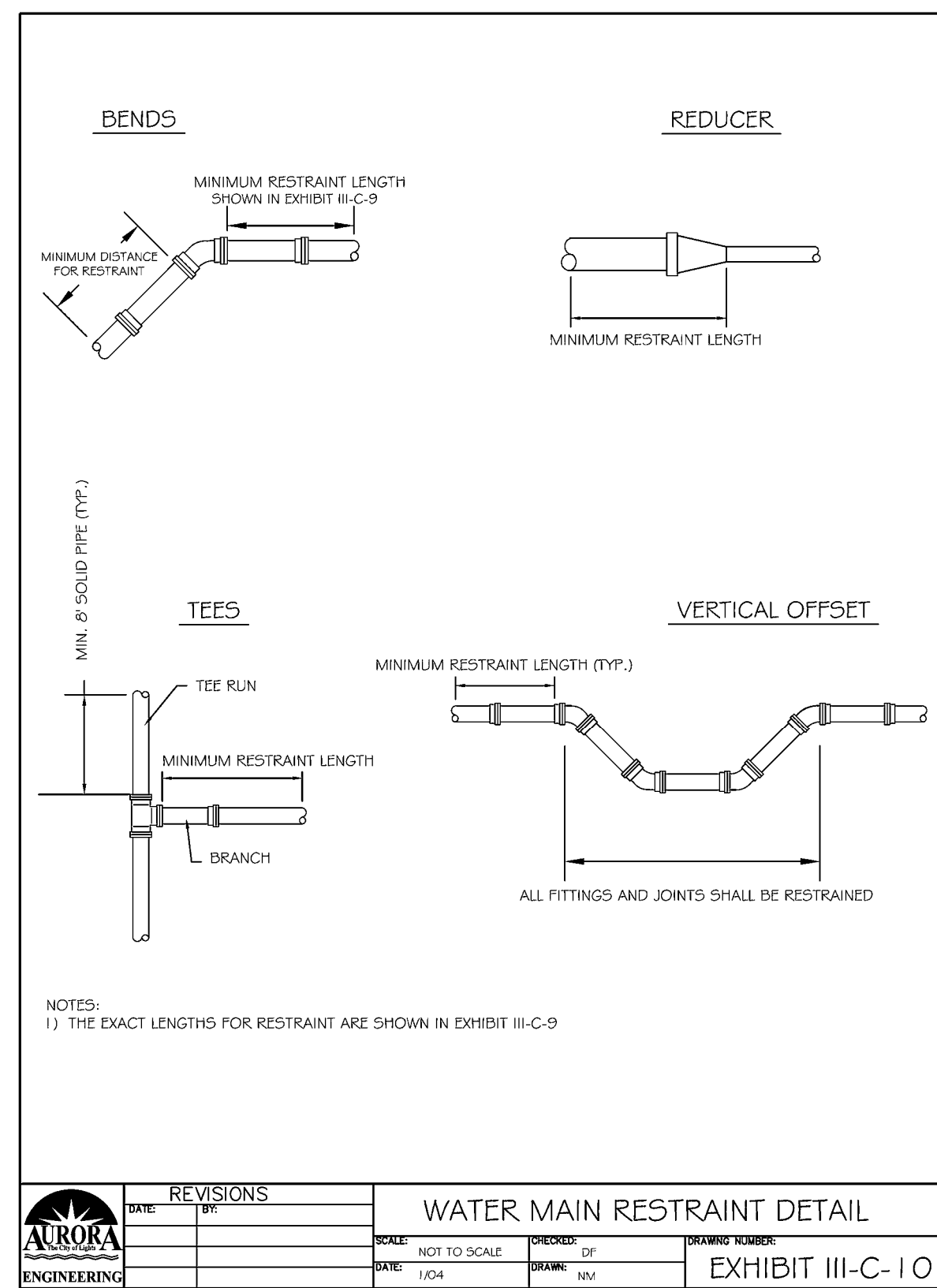
REVISIONS		THRUST BLOCKING	
DATE: 01/2011	BY: Jhs	SCALE: NOT TO SCALE	CHECKED: DF
DATE: 1/04	BY: NM	DRAWING NUMBER: EXHIBIT III-C-3	



REVISIONS		WATERMAIN TRENCH DETAIL PAVED & UNPAVED	
DATE: 11/25-13	BY: DG	SCALE: NOT TO SCALE	CHECKED: SA
DATE: 1/04	BY: DG	DATE: 1/04	BY: DG
DRAWING NUMBER: EXHIBIT III-C-1			



REVISIONS		PRESSURE CONNECTION	
DATE: 01/2011	BY: Jhs	SCALE: NOT TO SCALE	CHECKED: DF
DATE: 1/05	BY: NM	DRAWING NUMBER: EXHIBIT III-C-11	



REVISIONS		WATER MAIN RESTRAINT DETAIL	
DATE: 1/04	BY: NM	SCALE: NOT TO SCALE	CHECKED: DF
DATE: 1/04	BY: NM	DRAWING NUMBER: EXHIBIT III-C-10	

Minimum Restraint Length (ft) on both sides of the Fitting				
Fitting Type/Nominal Size	6"	8"	12"	16"
11 1/4° Bend	2	3	4	6
22 1/2° Bend	5	6	9	11
45° Bend	10	13	18	23
90° Bend	23	30	43	56
Dead End	31	40	57	74
Top Side of a Vertical Offset <sup>1</sup>	19	25	35	46
Tee Run x Branch <sup>2</sup>	6" BY	24		
Tee Run x Branch <sup>2</sup>	8" BY	22	34	
Tee Run x Branch <sup>2</sup>	12" BY	18	31	51
Tee Run x Branch <sup>2</sup>	16" BY	14	28	48
Reducer <sup>3</sup>	8" BY	17		
Reducer <sup>3</sup>	12" BY	42	30	
Reducer <sup>3</sup>	16" BY	62	54	31

<sup>1</sup> All joints within the lowered section of the watermain shall be restrained or shall be solid pipe. The above distances reflect the required restraint distance on the normally elevated watermain either side of the 45° fitting of the vertical offset (or lowering).

<sup>2</sup> Minimum of 8 ft of solid pipe is required on both sides of the fitting on the run side. Distance indicates the length of restraint on the branch side or the side perpendicular to the tee run watermain.

<sup>3</sup> Indicates the distance from the larger end of the reducer.

Notes: 1) All nuts and bolts shall be stainless steel.  
2) The entire restraint system from the fitting to the minimum restraint distance must be inspected by The City of Aurora or it's representative prior to backfilling.

Revisions		Watermain Restraint Length Table	
DATE: 2/04	BY: PJH	SCALE: None	CHECKED: PJH
DATE: 2/04	BY: DF	DATE: 2/04	BY: DF
DRAWING NUMBER: EXHIBIT III-C-9			

Plotted: November 30, 2018 @ 1:25 PM By: Larry Nolan - Tab: 18 Site Details (22x34)

Engineering Enterprises, Inc.  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

scientel SOLUTIONS  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	3/16/18	PER CITY AND FOX METRO COMMENTS

SCIENTEL SOLUTIONS  
EOLA ROAD SITE  
AURORA, ILLINOIS

SITE DETAILS

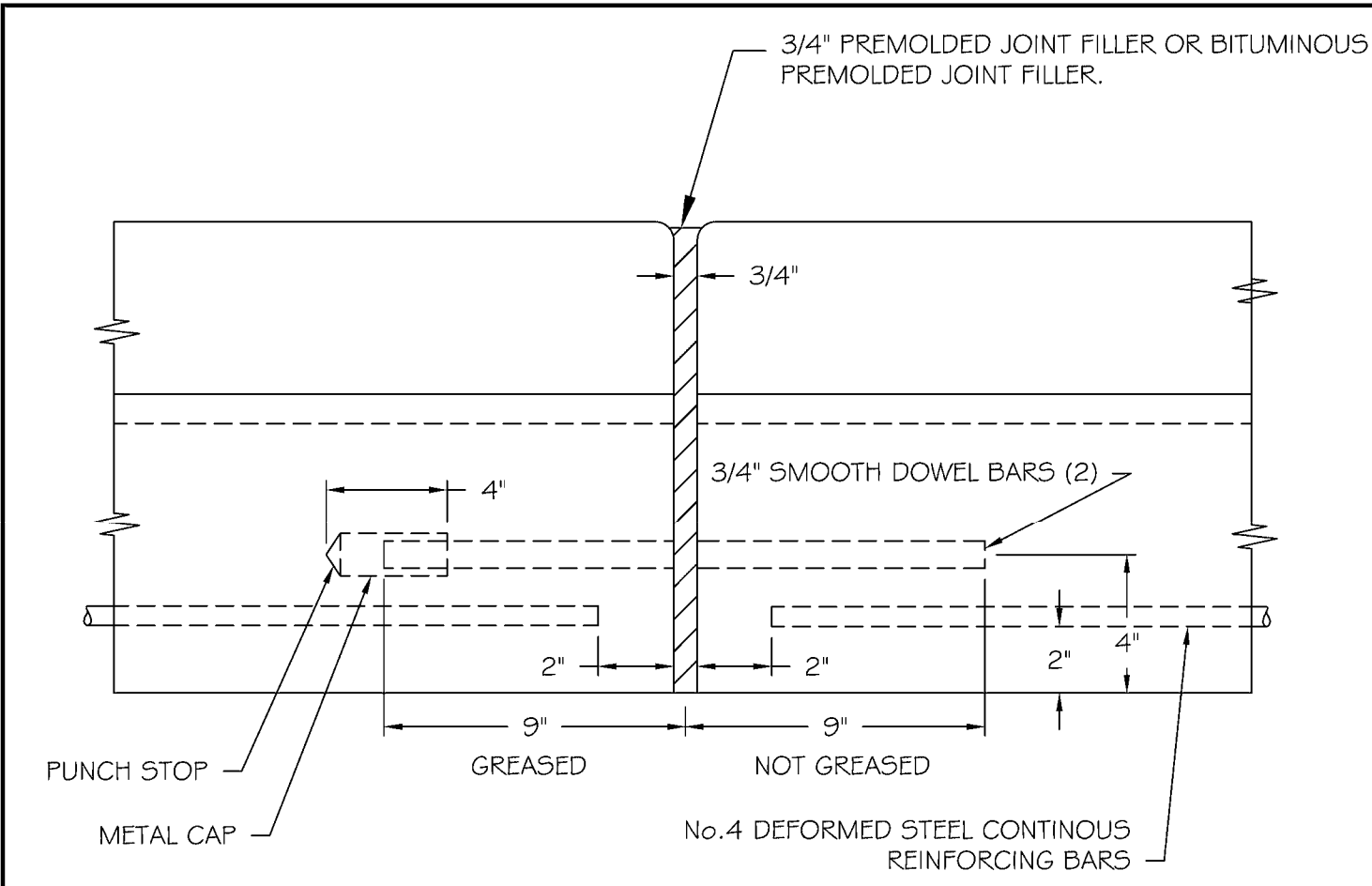
DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	18 OF 25

Path: H:\S05\KPR03\16039.DWG FINAL ENG\16039-COVER

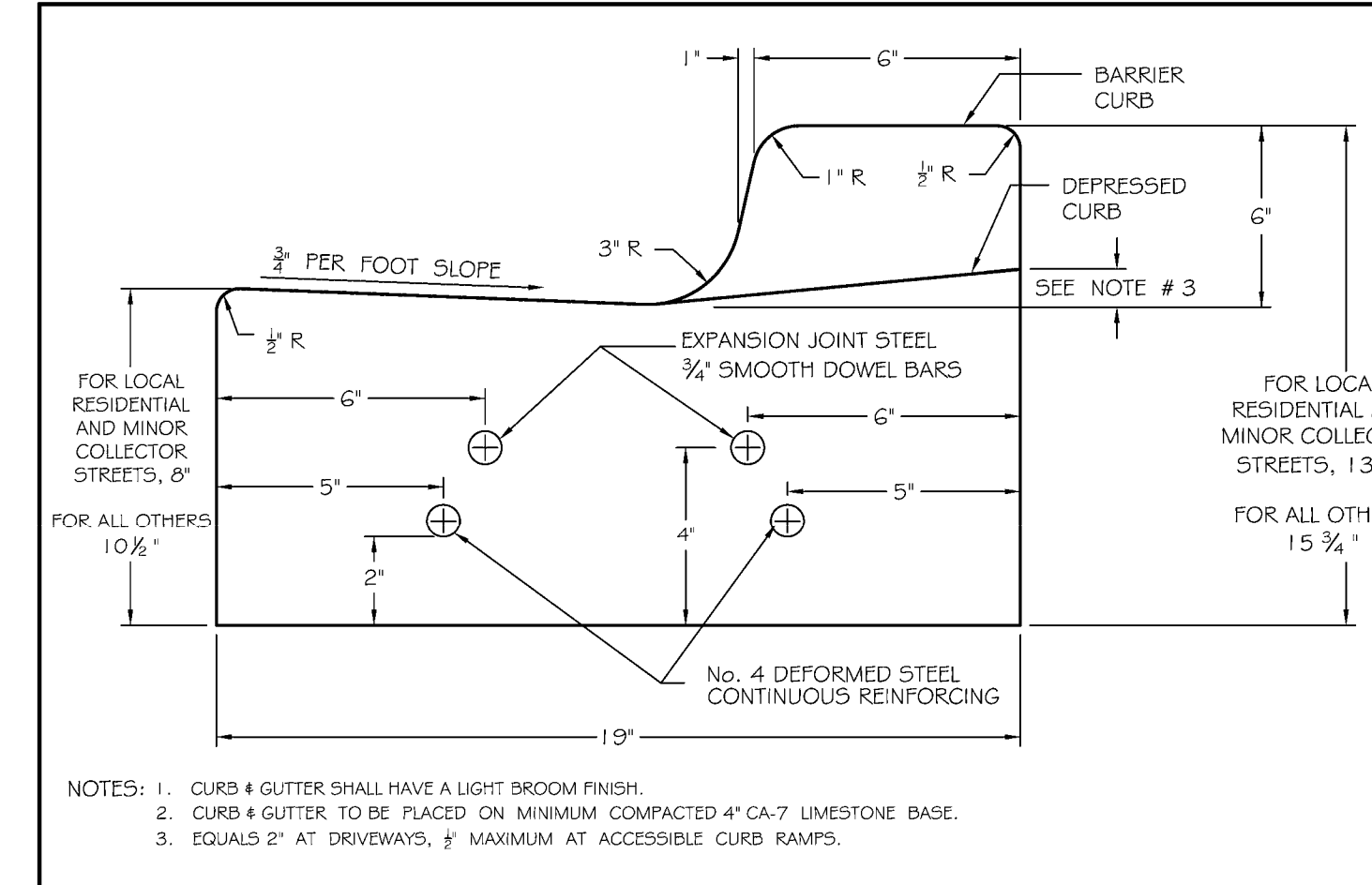
**CURB AND GUTTER GENERAL NOTES:**

1. Contraction joints shall be placed ten (10) feet on centers and shall be saw cut to a minimum depth of two (2) inches from front to back within twenty four (24) hours of concrete placement.
2. The concrete material, curing, protection, and placement for all curb, combination curb and gutter or, depressed curb and gutter shall meet the requirements of Articles 606,1020, 1021, 1022, and 1023 of the State of Illinois "Standard Specifications for Road and Bridge Construction", latest edition. Membrane curing and concrete sealing shall be accompanied by W.R. Meadows CS-309 Cure and Seal or approved equal like Okon S-20. If the forecast indicates temperatures below 32° F, protection methods shall be installed in accordance with the Standard Specifications for Road and Bridge Construction and shall be approved by the City Engineer.
3. The minimum longitudinal curb slope shall be 0.40%.
4. Cuts into the existing curb shall be made full depth with full expansion joints drilled at each per Exhibit II-C-12 herein.

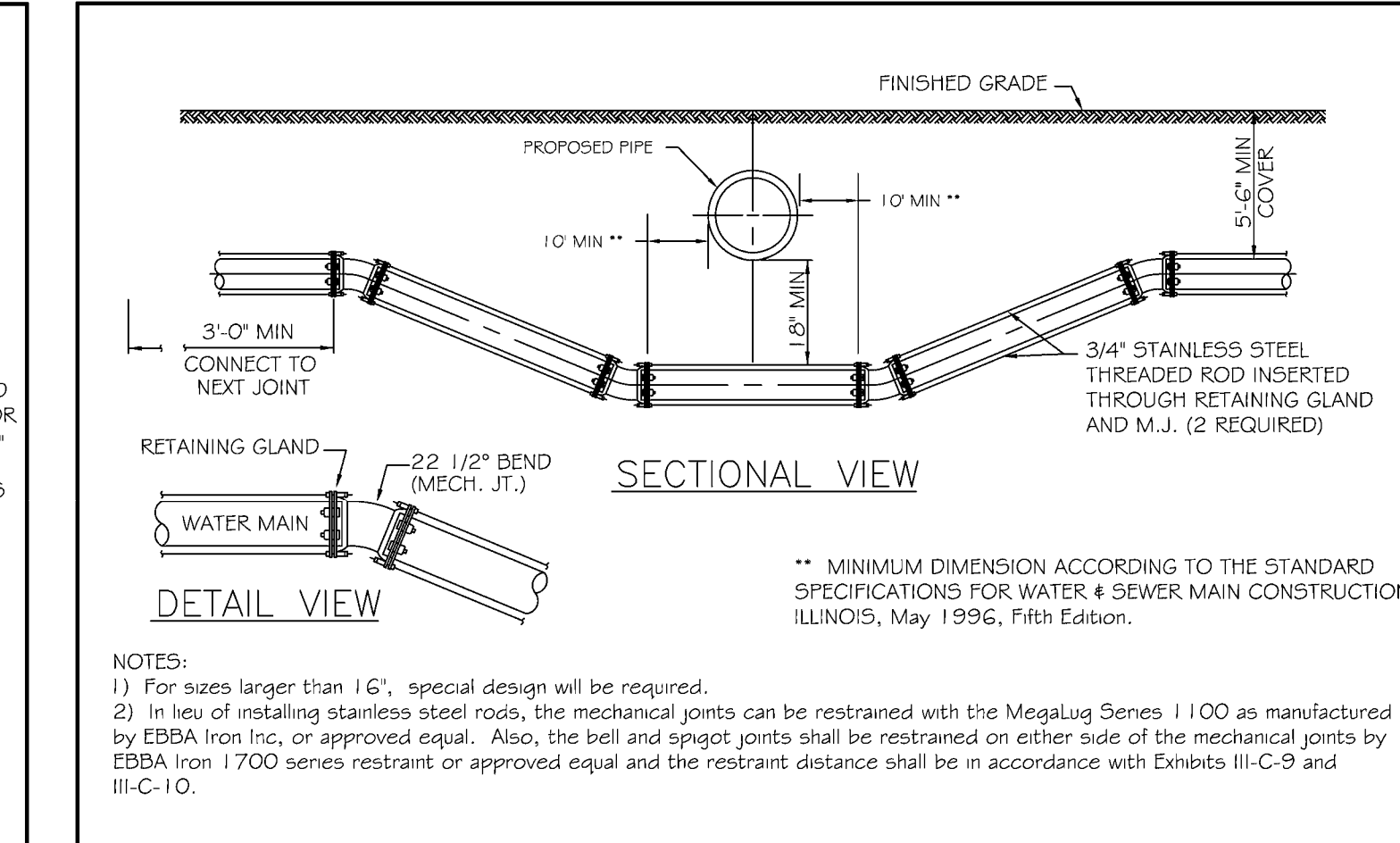
	REVISIONS		CURB AND GUTTER GENERAL NOTES	
	DATE: 01/20/11	BY: Jc	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 02/20/13	BY: DG	DATE: 03/09	DRAWN: J. MOORE EXHIBIT II-C-5
	ENGINEERING			



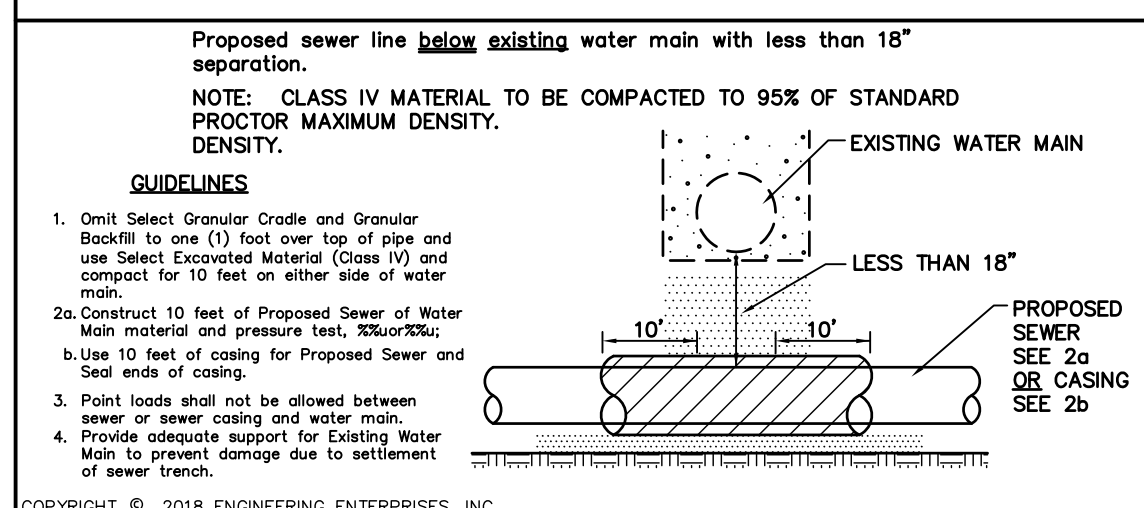
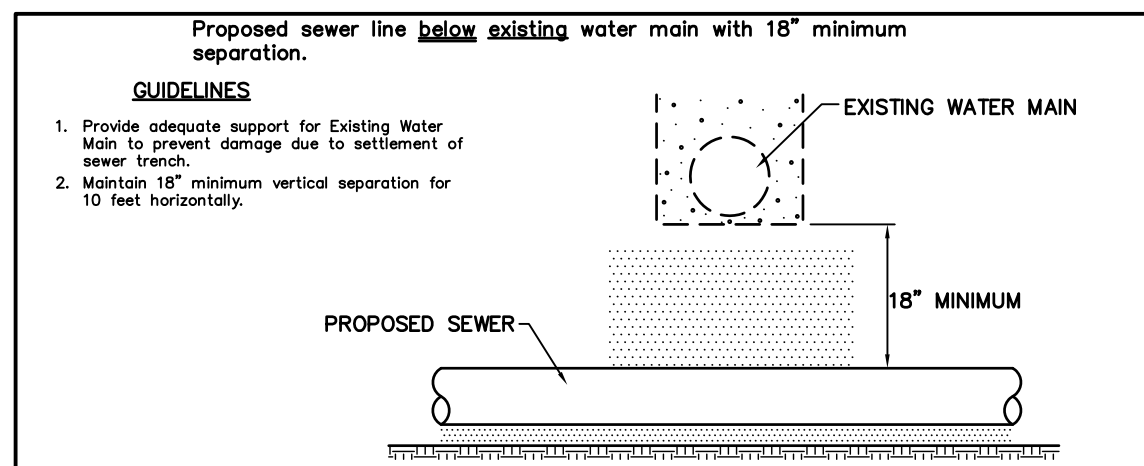
	REVISIONS		EXPANSION JOINT DETAIL	
	DATE: 01/20/11	BY: Jc	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 1/04	BY: NM	DATE: 1/04	DRAWN: NM EXHIBIT II-C-12
	ENGINEERING			



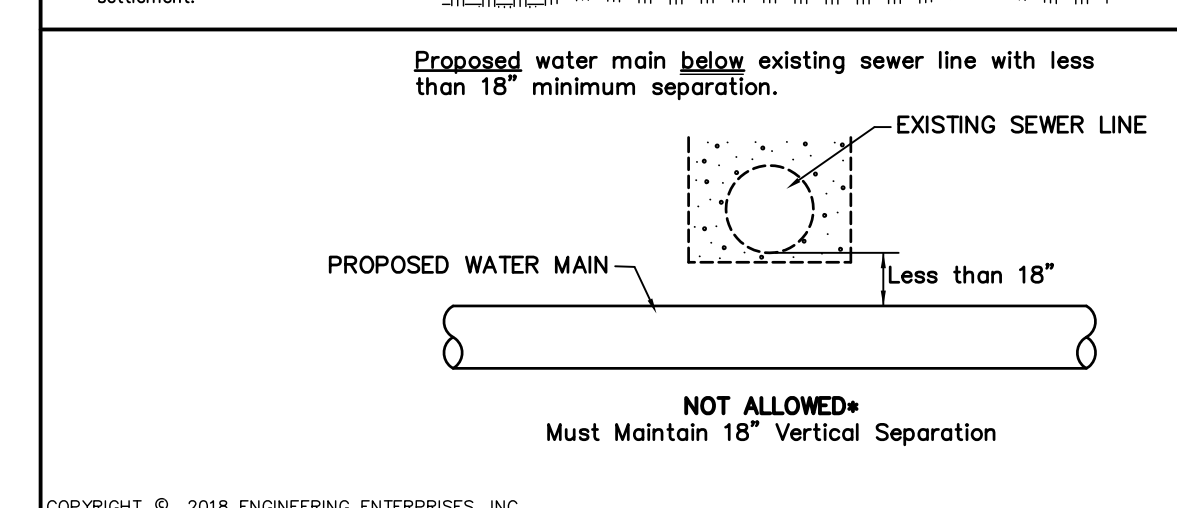
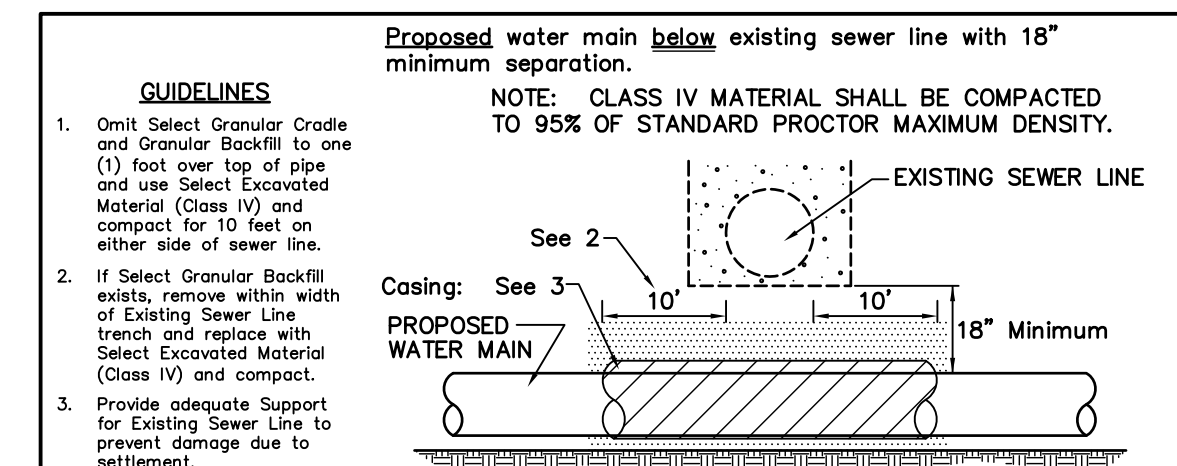
	REVISIONS		CONCRETE CURB & GUTTER	
	DATE: 02/20/13	BY: DG	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 1/04	BY: NM	DATE: 1/04	DRAWN: NM EXHIBIT II-C-4
	ENGINEERING			



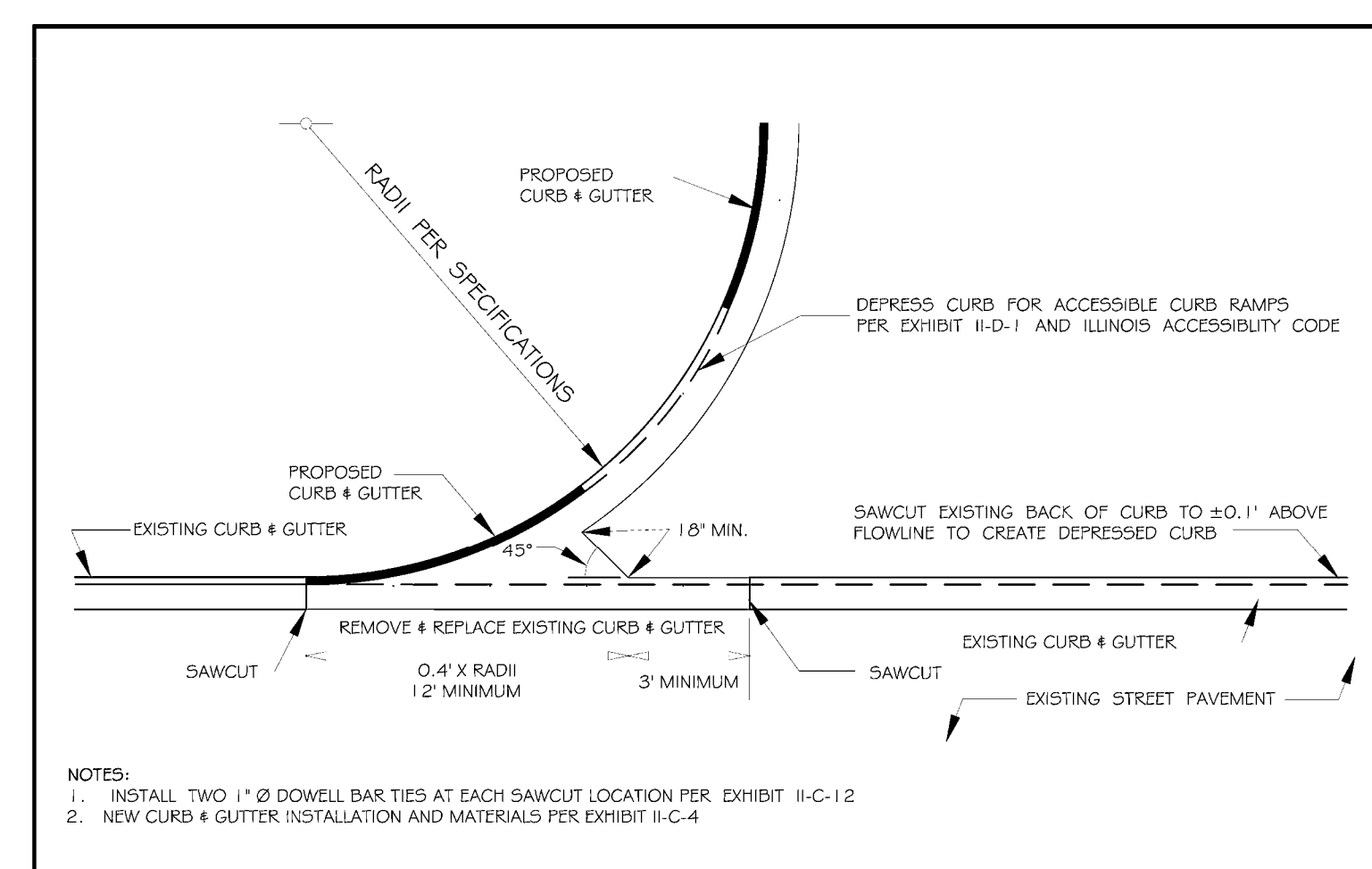
	REVISIONS		WATER MAIN LOWERING DETAIL	
	DATE: 1/04	BY: SAZ	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 1/04	BY: SAZ	DATE: 1/04	DRAWN: SAZ EXHIBIT III-C-8
	ENGINEERING			



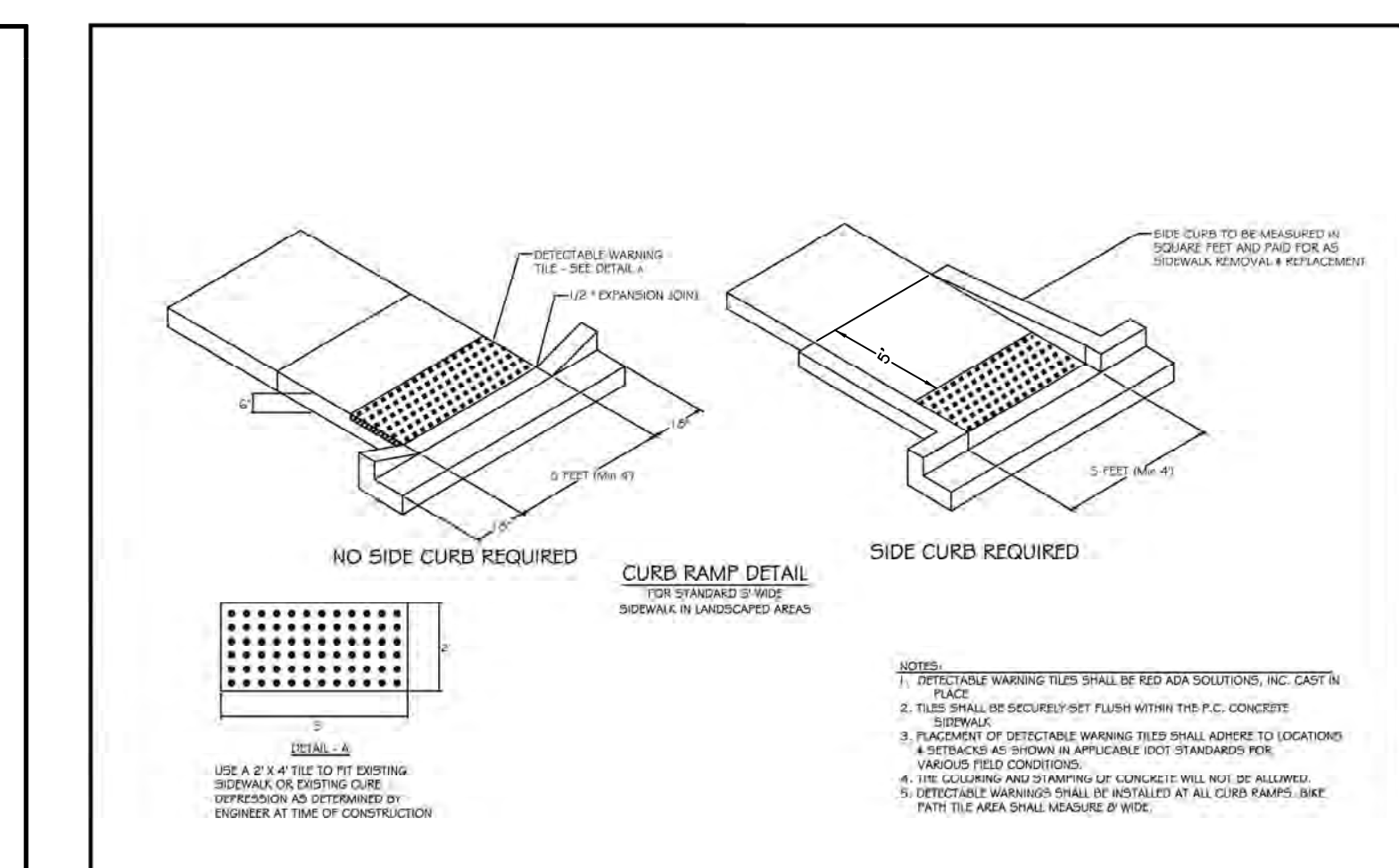
WATER & SEWER SEPARATION REQUIREMENTS (VERTICAL)			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-WA	DRAWING NUMBER: TR-04
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 9/24/07		DRAWN BY: WCP



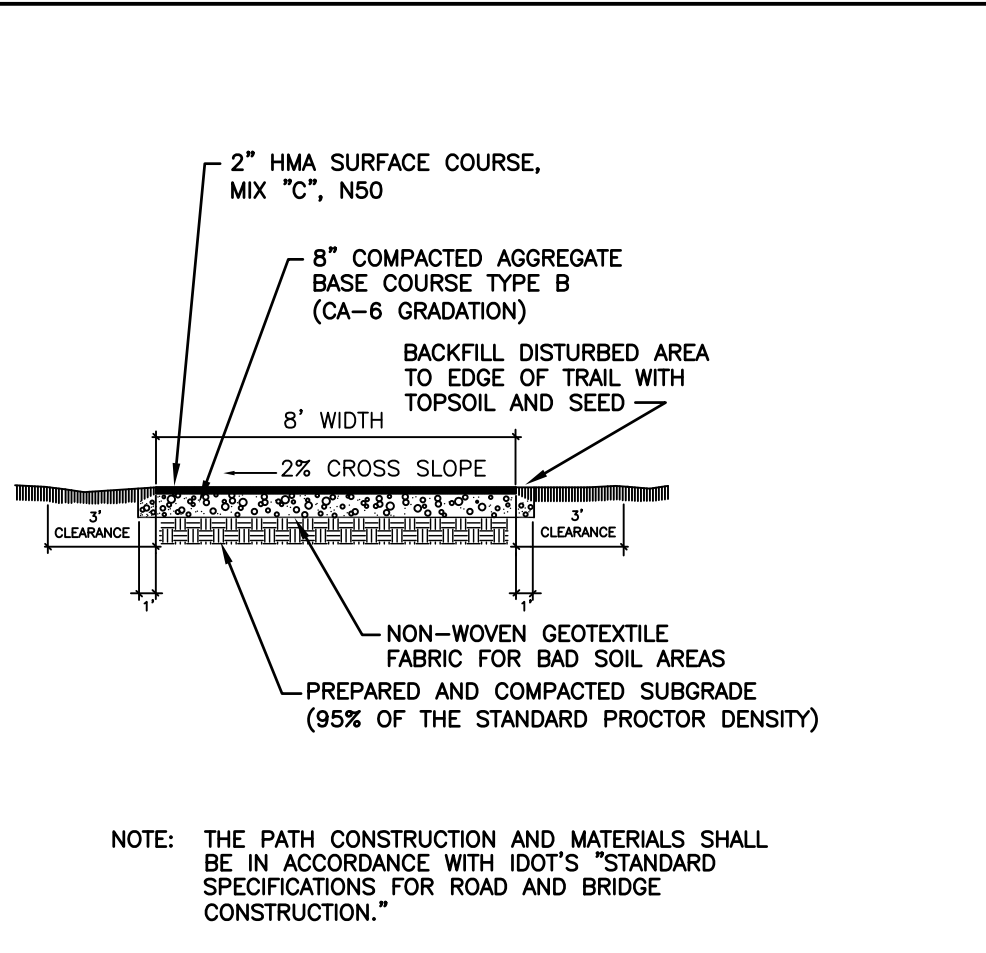
WATER & SEWER SEPARATION REQUIREMENTS (VERTICAL)			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-WA	DRAWING NUMBER: TR-03
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 9/24/07		DRAWN BY: WCP



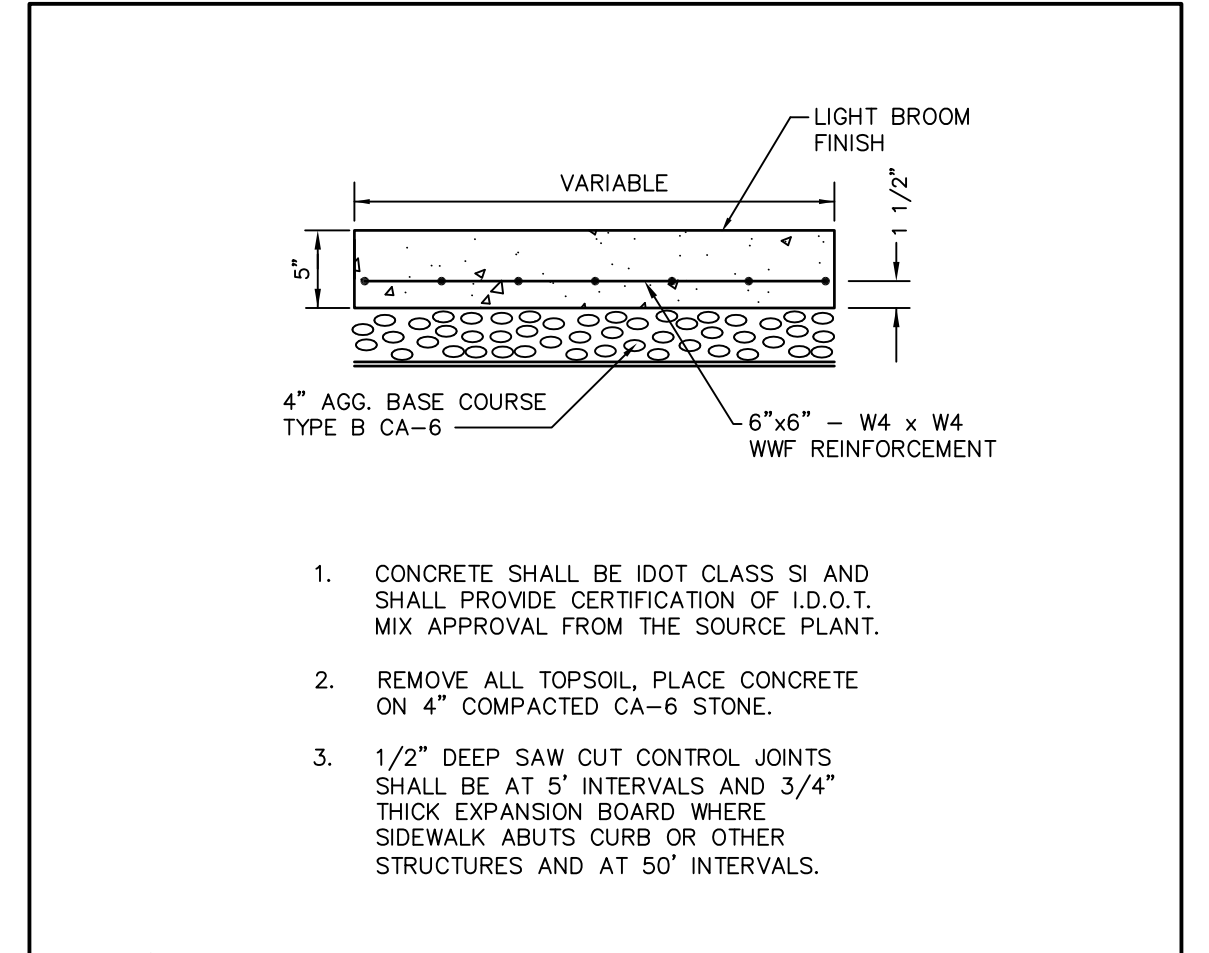
	REVISIONS		CURB CONNECTION DETAIL	
	DATE: 02/20/13	BY: DG	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 9/10	BY: D. GOEWEY	DATE: 9/10	DRAWN: D. GOEWEY EXHIBIT II-C-8
	ENGINEERING			



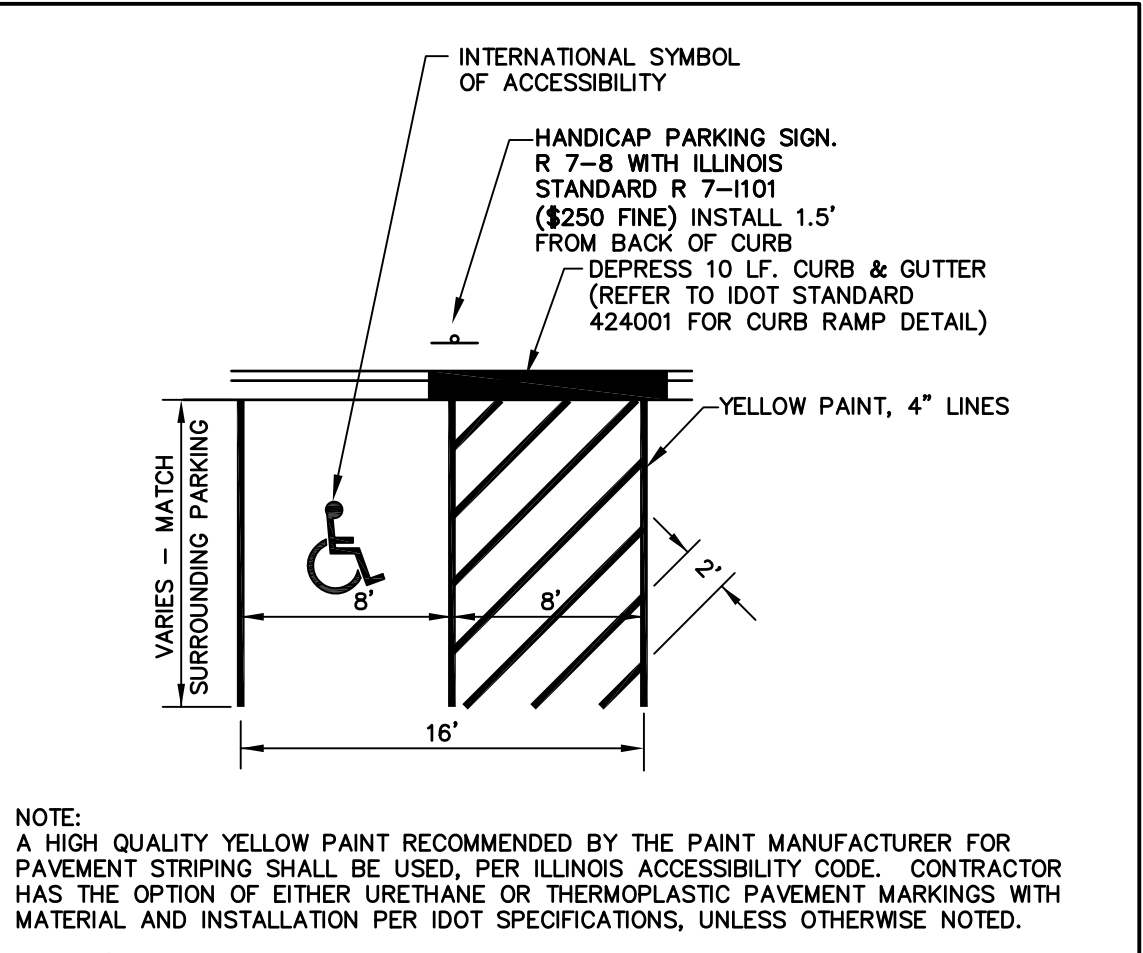
	REVISIONS		CURB RAMP DETAIL	
	DATE: 12/20/10	BY: JHS	SCALE:	CHECKED: DRAWING NUMBER:
	DATE: 02-22-13	BY: DG	DATE: 1/04	DRAWN: DG EXHIBIT II-C-6
	ENGINEERING			



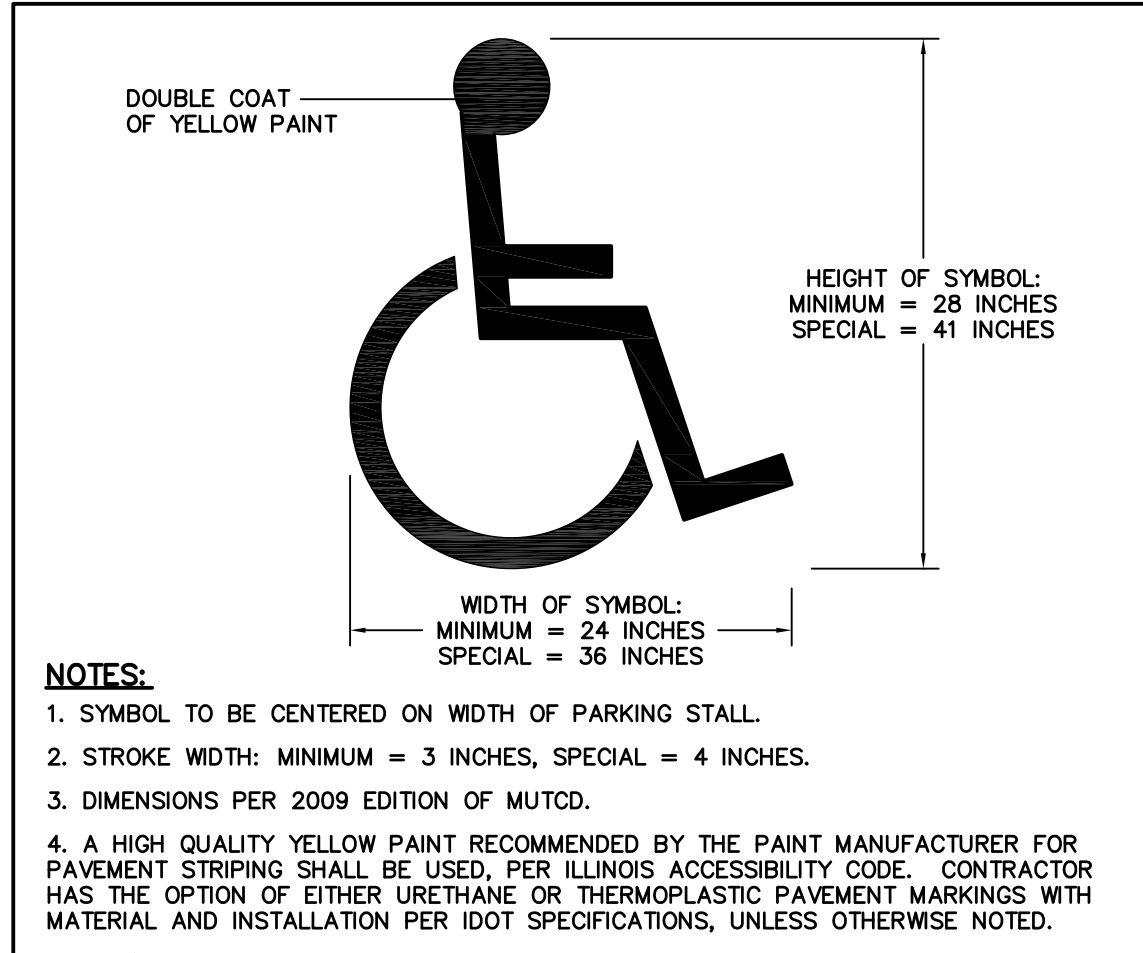
BITUMINOUS PATH DETAIL			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-PV	DRAWING NUMBER: PA-01
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 7/10/01		DRAWN BY: WCP



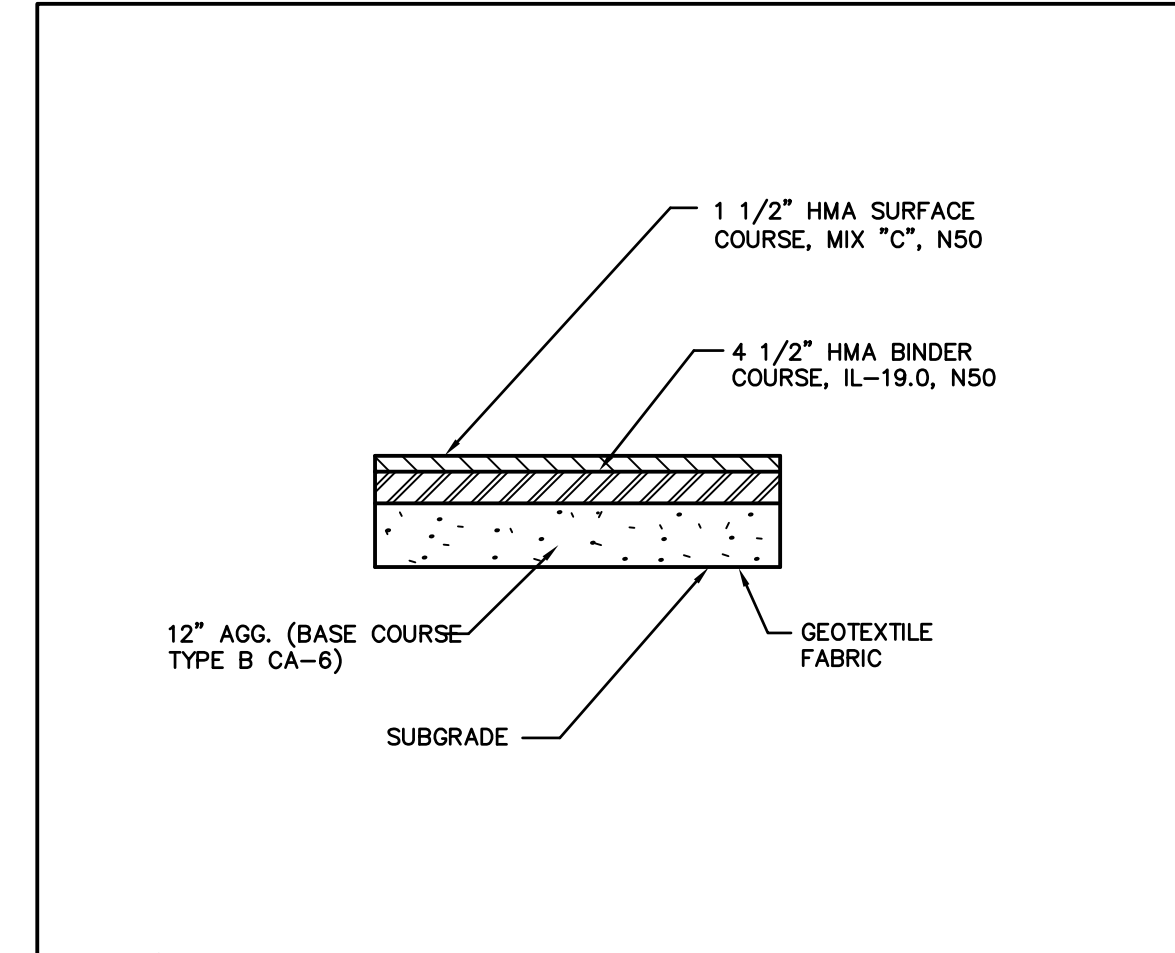
TYPICAL P.C.C. SIDEWALK SECTION			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-PV	DRAWING NUMBER: SW-04
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 5/01/01		DRAWN BY: CLN



HANDICAP PARKING STALL			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-HC	DRAWING NUMBER: 06
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 11/05/06		DRAWN BY: CLN



HANDICAP PAINTED SYMBOL			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-HC	DRAWING NUMBER: 07
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 9/04/91		DRAWN BY: CLN



TYPICAL HEAVY BITUMINOUS PAVEMENT SECTION			
Engineering Enterprises, Inc.	SCALE: N.T.S.	FOLDER: EE-PV	DRAWING NUMBER: PS-05
52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	DATE: 9/01/95		DRAWN BY: CLN

30. 2018 © 1:25 PM By: Larry Nolan - Tab: 19 Site Details (22x34)

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS
NO.	DATE	REVISIONS

**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**SITE DETAILS**

DATE: DECEMBER 2018  
PROJECT NO: P16039  
FILE: P16039-COVER  
SHEET 19 OF 25

Path: \\S05KPC01\p16039\DWG FINAL ENG\16039-COVER

**PERMEABLE PAVER SPECIFICATIONS**

**QUALITY ASSURANCE**

- A. INSTALLATION SHALL BE BY A CONTRACTOR AND CREW WITH AT LEAST ONE YEAR OF EXPERIENCE IN PLACING INTERLOCKING CONCRETE PAVERS ON PROJECTS OF SIMILAR NATURE OR DOLLAR COSTS. CONTRACTOR MUST HAVE EXPERIENCE WITH MECHANICAL PLACEMENT OF INTERLOCKING CONCRETE PAVERS IN PROJECTS LARGER THAN 25,000 SQUARE FEET.
- B. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE/PROVISIONAL LICENSING AND BONDING REQUIREMENTS.

**SUBMITTALS**

- A. SHOP OR PRODUCT DRAWINGS AND PRODUCT DATA SHALL BE SUBMITTED.
- B. FULL SIZE SAMPLES OF THE ECO-OPTILOC® CONCRETE PAVING UNIT SHALL BE SUBMITTED TO INDICATE COLOR AND PRODUCT SHAPE. COLOR WILL BE SELECTED BY ARCHITECT AND OWNER FROM UNILOCK'S (MANUFACTURER'S) AVAILABLE COLORS.
- C. SIEVE ANALYSIS FOR GRADING OF BEDDING AND JOINT OPENING AGGREGATES SHALL BE SUBMITTED.
- D. TEST RESULTS SHALL BE SUBMITTED FROM AN INDEPENDENT TESTING LABORATORY FOR COMPLIANCE OF PAVING UNIT REQUIREMENTS TO ASTM C 936 OR OTHER APPLICABLE REQUIREMENTS.
- E. THE LAYOUT, PATTERN, AND RELATIONSHIP OF PAVING JOINTS TO FIXTURES AND PROJECT FORMED DETAILS SHALL BE INDICATED.

**MOCK-UPS**

- A. A 7 FT. X 7 FT. (2M X 2M) PAVER AREA SHALL BE INSTALLED. MOCKUP TO BE LAID IN ACCORDANCE WITH LAYER PACKAGING, IN THE ORDER IN WHICH IS WAS REMOVED FROM THE PALLET
- B. THIS AREA WILL BE USED TO DETERMINE JOINT SIZES, LINES, LAYING PATTERN(S), COLOR(S), AND TEXTURE OF THE PROJECT.
- C. THIS AREA SHALL BE THE STANDARD FROM WHICH THE WORK WILL BE JUDGED.

**DELIVERY, STORAGE AND HANDLING**

- A. CONCRETE PAVERS SHALL BE DELIVERED TO THE SITE IN STEEL BANDED, PLASTIC BANDED, OR PLASTIC WRAPPED CUBES CAPABLE OF TRANSFER BY FORK LIFT OR CLAMP LIFT. THE PAVERS SHALL BE UNLOADED AT THE JOB SITE IN SUCH A MANNER THAT NO DAMAGE OCCURS TO THE PRODUCT.
- B. DELIVERY AND PAVING SCHEDULES SHALL BE COORDINATED IN ORDER TO MINIMIZE INTERFERENCE WITH NORMAL USE OF BUILDINGS ADJACENT TO PAVING.

**ENVIRONMENTAL CONDITIONS**

- A. DO NOT INSTALL BEDDING AGGREGATES OR PAVERS DURING HEAVY RAIN OR SNOWFALL.
- B. DO NOT INSTALL BEDDING AGGREGATES OR PAVERS OVER FROZEN BASE MATERIALS.
- C. DO NOT INSTALL FROZEN BEDDING AGGREGATES.

**CONCRETE PAVERS**

- I. SUPPLIED BY: UNILOCK CHICAGO, INC. 301 EAST SULLIVAN ROAD AURORA, ILLINOIS 60504 OFFICE 630-892-9191 FAX 630-892-9215
- II. UNILOCK REPRESENTATIVE: JAY RIENTS PHONE NUMBER : 630-327-7530
- III. ECO-OPTILOC® CONCRETE PAVING STONE(S) 9.625 IN. X 9.625 IN. L-SHAPED PAVER UNITS WITH PERIPHERAL INDENTED PROFILE, CREATING AN ELONGATED OPENING OF 0.5 IN. X 2.125 IN. UNITS SHALL BE 3 1/8 IN. (80 MM) THICK. DEPRESSIONS WITHIN EACH UNIT SHALL CREATE A LINEAR PATTERN CONSISTING OF SQUARES AND RECTANGLES. A SOLDIER COURSE OF HOLLANDSTONE (NOMINAL 3.9 IN. X 3.125 IN) SHALL BE INSTALLED ADJACENT TO ALL CURBS.
- IV. PAVER UNITS SHALL MEET THE MINIMUM MATERIAL AND PHYSICAL PROPERTIES SET FORTH IN ASTM C 936, STANDARD SPECIFICATION FOR INTERLOCKING CONCRETE PAVING UNITS. (SEE NOTE #3)

- 1. AVERAGE COMPRESSIVE STRENGTH 8000 PSI (55MPA) WITH NO INDIVIDUAL UNIT UNDER 7,200 PSI (50 MPA).
- 2. AVERAGE ABSORPTION OF 5% WITH NO UNIT GREATER THAN 7% WHEN TESTED ACCORDING TO ASTM C 140.
- 3. RESISTANCE TO 50 FREEZE-THAW CYCLES WHEN TESTED ACCORDING TO ASTM C 67.

**PERMEABLE PAVER SPECIFICATIONS (Continued)**

---OR---

- V. MEET THE FOLLOWING REQUIREMENTS SET FOR IN CSA-A231/2-95, PRECAST CONCRETE PAVERS:
  - 1. MINIMUM AVERAGE CUBE COMPRESSION STRENGTH OF 7,250 PSI (50MPA).
  - 2. RESISTANCE TO 50 FREEZE-THAW CYCLES WHILE IMMERSED IN 3 % SALINE SOLUTION.
- VI. EFFLORESCENCE SHALL NOT BE A CAUSE FOR REJECTION. (SEE NOTE #1)
- VII. PIGMENT IN CONCRETE PAVERS SHALL CONFORM TO ASTM C 979. ACI REPORT NO. 212.3R PROVIDES GUIDANCE ON THE USE OF PIGMENTS.

NOTE #1: EFFLORESCENCE IS A WHITISH POWDER-LIKE DEPOSIT THAT SOMETIMES APPEARS ON CONCRETE PRODUCTS. CALCIUM HYDROXIDE AND OTHER WATER-SOLUBLE MATERIALS FORM OR ARE PRESENT DURING THE HYDRATION OF PORTLAND CEMENT. PORE WATER BECOMES SATURATED WITH THESE MATERIALS, AND DIFFUSES TO THE SURFACE OF THE CONCRETE. WHEN THIS WATER EVAPORATES, THE SOLUBLE MATERIALS REMAIN AS A WHITISH DEPOSIT ON THE CONCRETE SURFACE. THE CALCIUM HYDROXIDE IS CONVERTED TO CALCIUM CARBONATE DURING A REACTION WITH CARBON DIOXIDE FROM THE ATMOSPHERE. THE CALCIUM CARBONATE IS DIFFICULT TO REMOVE WITH WATER. HOWEVER, THE EFFLORESCENCE WILL WEAR OFF IN TIME, AND IT IS ADVISED TO WAIT A FEW MONTHS BEFORE ATTEMPTING TO REMOVE ANY EFFLORESCENCE. COMMERCIALLY AVAILABLE CLEANERS CAN BE USED, PROVIDED DIRECTIONS ARE CAREFULLY FOLLOWED. SOME CLEANERS CONTAIN ACIDS THAT MAY ALTER THE COLOR OF THE PAVERS.

NOTE #3: ECOLOC® PAVER UNITS ARE 3 1/8 IN. (80 MM) THICK, THEIR COMPRESSIVE STRENGTH TEST RESULTS SHOULD BE ADJUSTED BY MULTIPLYING THEM BY 1.18 TO EQUATE THE RESULTS TO THAT FROM 2 3/8 IN. (60 MM) THICK PAVER UNITS.

**GRANULAR SUBBASE**

THE GRANULAR SUBBASE MATERIAL SHALL CONSIST OF GRANULAR MATERIALS GRADED IN ACCORDANCE WITH ASTM D 2940,

IDOT CA-1 OR IDOT CA-7 SHALL BE USED FOR ALL GRANULAR SUBBASE.

**GRANULAR BASE**

THE GRANULAR BASE MATERIAL SHALL CONSIST OF GRANULAR MATERIALS GRADED IN ACCORDANCE WITH ASTM D 2940,

IDOT CA-7 SHALL BE USED FOR ALL GRANULAR BASE

**BEDDING AND VOID OPENING AGGREGATES**

THE GRANULAR BEDDING MATERIAL SHALL BE GRADED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2940,

IDOT CA-16 SHALL BE USED FOR ALL BEDDING MATERIAL

NOTE: AGGREGATES MATERIALS USED IN THE CONSTRUCTION OF PERMEABLE PAVEMENTS SHALL BE CLEAN, HAVE ZERO PLASTICITY AND CONTAIN NO #200 SIEVE SIZE MATERIALS. THE AGGREGATE MATERIALS MUST SERVE AS THE STRUCTURAL LOAD BEARING PLATFORM OF THE PAVEMENT AS WELL AS A TEMPORARY RECEPTOR FOR THE INFILTRATED WATER THAT IS COLLECT THROUGH THE OPENINGS IN THE PAVEMENT'S SURFACE.

**GEOTEXTILE FABRIC**

THE GEOTEXTILE FABRIC SHALL BE A NON-WOVEN TYPE SUITABLE FOR DRAINAGE APPLICATIONS AND SUBGRADE SEPERATION.

US FABRICS 160NW, MIRAFI 160N, GEOTEX 601, OR ENGINEER APPROVED EQUAL.

**EDGE RESTRAINTS**

THE PROVISION OF SUITABLE EDGE RESTRAINTS IS CRITICAL TO THE SATISFACTORY PERFORMANCE OF INTERLOCKING CONCRETE BLOCK PAVEMENT. THE PAVERS MUST ABUT TIGHTLY AGAINST THE RESTRAINTS TO PREVENT ROTATION UNDER LOAD AND ANY CONSEQUENT SPREADING OF JOINTS. THE RESTRAINTS MUST BE SUFFICIENTLY STABLE THAT, IN ADDITION TO PROVIDING SUITABLE EDGE SUPPORT FOR THE PAVER UNITS, THEY ARE ABLE TO WITHSTAND THE IMPACT OF VEHICULAR TRAFFIC AND/OR SNOW REMOVAL EQUIPMENT.

IDOT STANDARD BARRIER CURB SHALL BE USED AS EDGE RESTRAINTS FOR ALL PERMEABLE PAVER AREAS.

**EXAMINATION**

NOTE: FOR INSTALLATION ON COMPACTED AGGREGATE BASE AND SOIL SUBGRADE, THE SPECIFIER SHOULD BE AWARE THAT THE TOP SURFACE OF THE PAVERS MAY BE 1/8 IN. TO 1/4 IN. (3MM TO 6MM) ABOVE THE FINAL ELEVATIONS AFTER COMPACTION. THIS DIFFERENCE IN INITIAL AND FINAL ELEVATION IS TO COMPENSATE FOR POSSIBLE MINOR SETTLING.

- A. VERIFY THAT SUBGRADE PREPARATION, COMPACTED DENSITY AND ELEVATIONS CONFORM TO THE SPECIFICATIONS.
- B. VERIFY THAT GEOTEXTILES, IF APPLICABLE, HAVE BEEN PLACED ACCORDING TO SPECIFICATIONS AND DRAWINGS.
- C. VERIFY THAT AGGREGATE BASE MATERIALS, THICKNESS, COMPACTION, SURFACE TOLERANCES AND ELEVATIONS CONFORM TO THE SPECIFICATIONS.

**EXAMINATION (Continued)**

NOTE: THE AGGREGATE BASE SHOULD BE SPREAD AND ROLLER COMPACTED IN UNIFORM LAYERS NOT EXCEEDING 6 IN. (150 MM) THICKNESS. RECOMMENDED BASE SURFACE TOLERANCE SHOULD BE PLUS OR MINUS 3/8 IN. (10MM) OVER A 10 FT (3 M) STRAIGHT EDGE. THE ARCHITECT/ENGINEER SHOULD INSPECT GEOTEXTILE MATERIALS AND PLACEMENT, BASE PREPARATION, SURFACE TOLERANCES, ELEVATIONS AND FOR CONFORMANCE TO SPECIFICATIONS.

NOTE: MECHANICAL TAMPERS (JUMPING JACKS) ARE RECOMMENDED FOR COMPACTION OF SOIL SUBGRADE AND AGGREGATE BASE AROUND LAMP STANDARDS, UTILITY STRUCTURES, BUILDING EDGES, CURBS, TREE WELLS AND OTHER PROTRUSIONS. AREAS NOT ACCESSIBLE TO ROLLER COMPACTION EQUIPMENT SHOULD BE COMPACTED TO THE SPECIFIED DENSITY WITH MECHANICAL TAMPERS. CAUTION - CARE SHALL BE TAKEN AROUND THE PERIMETERS OF EXCAVATIONS, BUILDINGS, CURBS, ETC. THESE AREAS ARE ESPECIALLY PRONE TO CONSOLIDATION AND SETTLEMENT. WEDGES OF BACKFILL SHOULD NOT BE PLACED IN THESE AREAS. IF POSSIBLE, BACKFILLING AND COMPACTING IN THESE AREAS PARTICULARLY SHOULD PROCEED IN SHALLOW LIFTS, PARALLEL TO THE FINISHED SURFACE.

- D. VERIFY THE PROPER INSTALLATION OF THE CONCRETE CURBING, IN TERMS OF LOCATION, ELEVATION, AND ADHERENCE TO THE SPECIFICATIONS.
- E. VERIFY THAT THE BASE IS DRY, UNIFORM, EVEN AND READY TO SUPPORT AGGREGATE, PAVERS AND IMPOSED LOADS.
- F. BEGINNING OF BEDDING COURSE AGGREGATES AND PAVER INSTALLATION SHALL SIGNIFY ACCEPTANCE OF THE BASE AND CONCRETE CURB EDGE RESTRAINTS.

**SITE PREPARATION**

- A. THE SITE MUST BE STRIPPED OF ALL TOPSOIL AND OTHER OBJECTIONABLE MATERIALS TO THE GRADES SPECIFIED.
- B. ALL SUBDRAINAGE OF UNDERGROUND SERVICES WITHIN THE PAVEMENT AREA MUST BE COMPLETED IN CONJUNCTION WITH SUBGRADE PREPARATION AND BEFORE THE COMMENCEMENT OF SUBBASE CONSTRUCTION.
- C. ALL SUBGRADE UNDER THE PAVEMENT AREA SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
- D. AFTER TRIMMING TO THE GRADES SPECIFIED, THE PAVEMENT IS TO BE PROOF ROLLED WITH SOFT SPOTS OR LOCALIZED POCKETS OF OBJECTIONABLE MATERIAL EXCAVATED AND PROPERLY REPLACED WITH APPROVED GRANULAR MATERIAL.
- E. THE SUBGRADE SHALL BE TRIMMED TO WITHIN 0 TO 3/8 IN. (0 TO 10 MM) OF THE SPECIFIED GRADES.
- F. THE CONTRACTOR SHALL INSURE THAT THE PREPARED SUBGRADE IS PROTECTED FROM DAMAGE FROM INUNDATION BY SURFACE WATER. NO TRAFFIC SHALL BE ALLOWED TO CROSS THE PREPARED SUBGRADE. REPAIR OF ANY DAMAGE RESULTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED.
- G. UNDER NO CIRCUMSTANCES SHALL FURTHER PAVEMENT CONSTRUCTION PROCEED UNTIL THE SUBGRADE HAS BEEN INSPECTED BY THE OWNER OR THE CONSULTANT.

**GEOTEXTILE FABRIC INSTALLATION**

- A. PRIOR TO PLACING ANY GRANULAR SUBBASE, THE CONTRACTOR SHALL PLACE GEOTEXTILE FABRIC OVER THE SUBGRADE.
- B. THE GEOTEXTILE FABRIC SHALL BE LAPPED A MINIMUM OF 2 FEET.
- C. THE GEOTEXTILE FABRIC UNDER THE GRANULAR SUBBASE SHALL BE LAPPED WITH THE GEOTEXTILE FABRIC SURROUNDING THE PERFORATED PIPE TRENCH.

**GRANULAR SUBBASE AND BASE INSTALLATION**

- A. AFTER PROPER CONSTRUCTION OF THE CONCRETE CURB EDGE RESTRAINTS FOR THE INTERLOCKING PAVEMENT, AGGREGATE SUBBASE AND BASE SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6 IN (150 MM) LOOSE THICKNESS AND ROLLER COMPACTED ACCORDING TO THE AASHTO GUIDELINES FOR INSTALLING OPEN GRADED AGGREGATES. SUBBASE THICKNESS SHALL BE: 18 IN. BASE THICKNESS SHALL BE: 6 IN.
- B. THE GRANULAR BASE SHALL BE TRIMMED TO WITHIN 0 TO 3/8 IN. (0 TO 10 MM) OF THE SPECIFIED GRADE.
- C. BEFORE COMMENCING THE PLACING OF BEDDING AGGREGATE COURSE AND THE PLACEMENT OF THE ECO-OPTILOC® CONCRETE PAVERS, THE BASE SHALL BE INSPECTED BY THE OWNER.

**EDGE RESTRAINTS**

- A. ADEQUATE CONCRETE EDGE RESTRAINT SHALL BE PROVIDED ALONG THE PERIMETER OF ALL PAVING AS SPECIFIED. THE FACE OF THE CONCRETE EDGE RESTRAINT, WHERE IT ABUTS PAVERS, SHALL BE VERTICAL DOWN TO THE SUBBASE.
- B. ALL CONCRETE EDGE RESTRAINTS SHALL BE CONSTRUCTED TO DIMENSIONS AND LEVEL SPECIFIED AND SHALL BE SUPPORTED ON A COMPACTED SUBBASE NOT LESS THAN 6 IN (150 MM) THICK.
- C. CONCRETE USED FOR THE CONSTRUCTION OF THE EDGE RESTRAINTS SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED. ALL CONCRETE SHALL BE IN ACCORDANCE WITH ASTM C 94 REQUIREMENTS.

**PAVER INSTALLATION**

- A. SPREAD THE BEDDING AGGREGATE EVENLY OVER THE BASE COURSE AND SCREED TO A NOMINAL 1 1/2 IN. TO 2 IN.(28 MM TO 51 MM) THICKNESS. THE BEDDING AGGREGATE SHOULD NOT BE DISTURBED. PLACE SUFFICIENT BEDDING AGGREGATE TO STAY AHEAD OF THE LAID PAVERS. DO NOT USE THE BEDDING AGGREGATE TO FILL DEPRESSIONS IN THE BASE SURFACE.
  - B. INITIATION OF PAVER PLACEMENT SHALL BE DEEMED TO REPRESENT ACCEPTANCE OF THE PAVERS.
  - C. PAVERS SHALL BE FREE OF FOREIGN MATERIAL BEFORE INSTALLATION.
  - D. PAVERS SHALL BE INSPECTED FOR COLOR DISTRIBUTION AND ALL CHIPPED, DAMAGED OR DISCOLORED PAVERS SHALL BE REPLACED.
  - E. THE PAVERS SHALL BE LAID IN PATTERN(S) AS SHOWN ON THE DRAWINGS.
  - F. JOINTS BETWEEN THE PAVERS SHALL BE MAINTAINED ACCORDING TO THE SPACER BARS.
  - G. GAPS AT THE EDGES OF THE PAVED AREA SHALL BE FILLED WITH CUT PAVERS.
- NOTE: UNITS CUT NO SMALLER THAN ONE-THIRD OF A WHOLE PAVER ARE RECOMMENDED ALONG EDGES SUBJECT TO VEHICULAR TRAFFIC.
- H. PAVERS TO BE PLACED ALONG THE EDGE SHALL BE CUT WITH A DOUBLE BLADE PAVER SPLITTER OR MASONRY SAW.
  - I. THE PAVER SURFACE SHALL BE SWEEP CLEAN OF ALL DEBRIS BEFORE COMPACTING, IN ORDER TO AVOID DAMAGE FROM POINT LOADS.
  - J. A LOW AMPLITUDE, HIGH FREQUENCY PLATE COMPACTOR SHALL BE USED TO COMPACT THE PAVERS INTO THE BEDDING AGGREGATE.
- | TABLE 5<br>PAVER THICKNESS AND REQUIRED MINIMUM<br>COMPACTIVE FORCE |                  |
|---|------------------|
| PAVER THICKNESS   | COMPACTIVE FORCE |
| 3 1/8 IN. (80 MM)   | 4700 LBS (22KN)  |
- K. THE PAVERS SHALL BE COMPACTED AND BEDDING AGGREGATE SHALL BE SWEEP INTO ALL JOINTS AND VOID OPENINGS UNTIL THEY ARE FULL. THIS WILL REQUIRE A LEAST TWO OR THREE PASSES WITH THE COMPACTOR. DO NOT COMPACT WITHIN 3 FT. (1M) OF ANY UNRESTRAINED EDGES OF THE LAID PAVING UNITS.

**PAVER INSTALLATION**

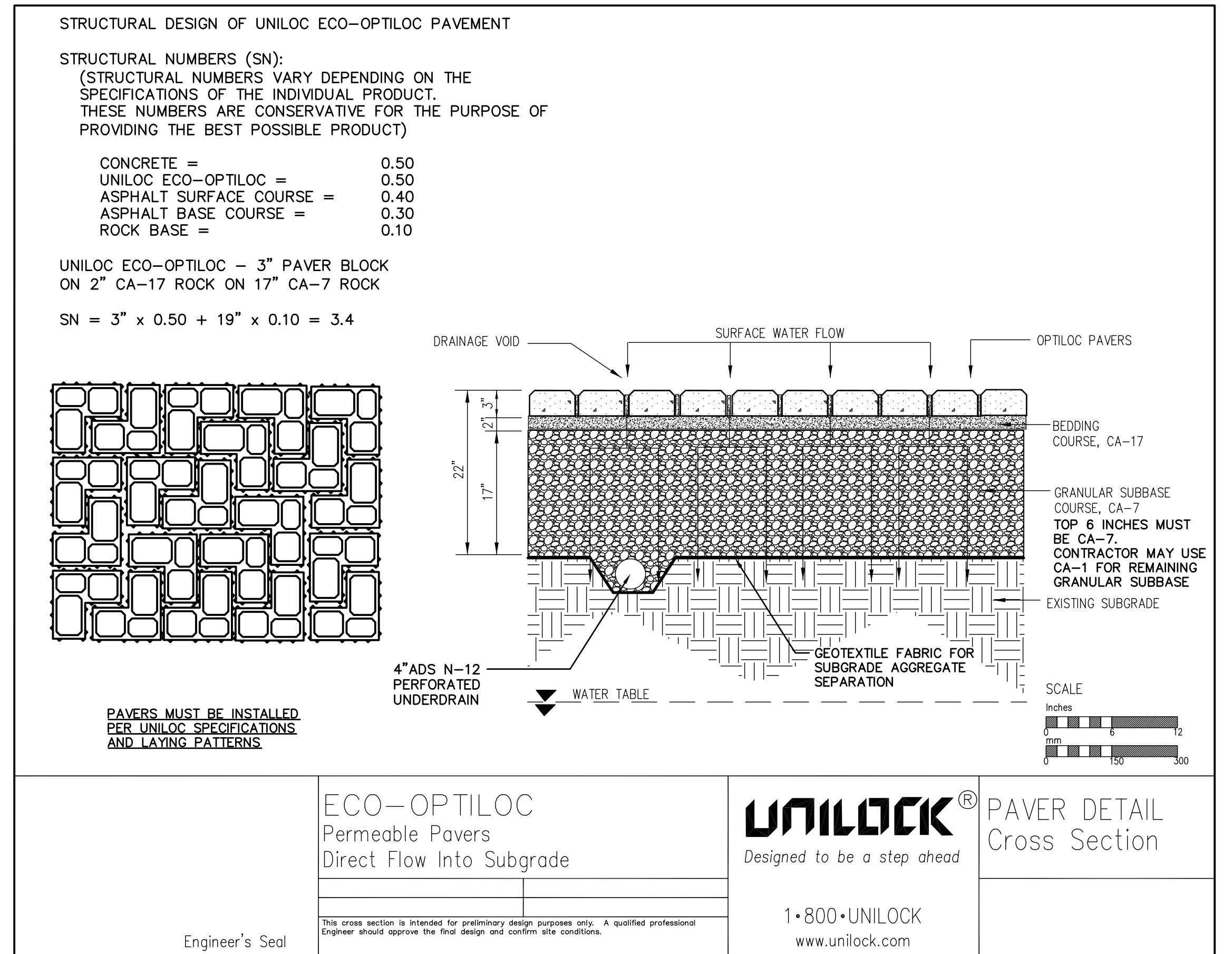
- L. ALL WORK TO WITHIN 3 FT. (1M) OF THE LAYING FACE MUST BE FULLY COMPACTED AT THE COMPLETION OF EACH DAY.
- M. EXCESS SURFACE BEDDING AND VOID OPENING AGGREGATES SHALL BE SWEEP OFF WHEN THE JOB IS COMPLETE.
- N. THE FINAL SURFACE ELEVATIONS SHALL NOT DEVIATE MORE THAN 3/8 IN UNDER A 10 FT (3M) STRAIGHT EDGE. SEE NOTE BELOW.
- O. THE SURFACE ELEVATION OF PAVERS SHALL BE 1/8 IN. TO 1/4 IN. (3 TO 6 MM) ABOVE ADJACENT DRAINAGE INLETS, CONCRETE COLLARS OR CHANNELS.

**FIELD QUALITY CONTROL**

- A. FINAL ELEVATIONS SHALL BE CHECKED FOR CONFORMANCE TO THE DRAWINGS AFTER REMOVAL OF EXCESS JOINTING AGGREGATE.

**DECORATIVE PAVER SPECIFICATIONS**

REFER TO LANDSCAPE PLANS FOR DECORATIVE PAVER SPECIFICATIONS  
DECORATIVE PAVERS IN PARKING AREAS SHALL HAVE SAME TYPICAL SECTION AS THE PERMEABLE PAVERS SEE DETAIL BELOW.



Plotted: November 30, 2018 @ 1:27 PM By: Larry Nolan - Tab: 20 Site Details (22x34)

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

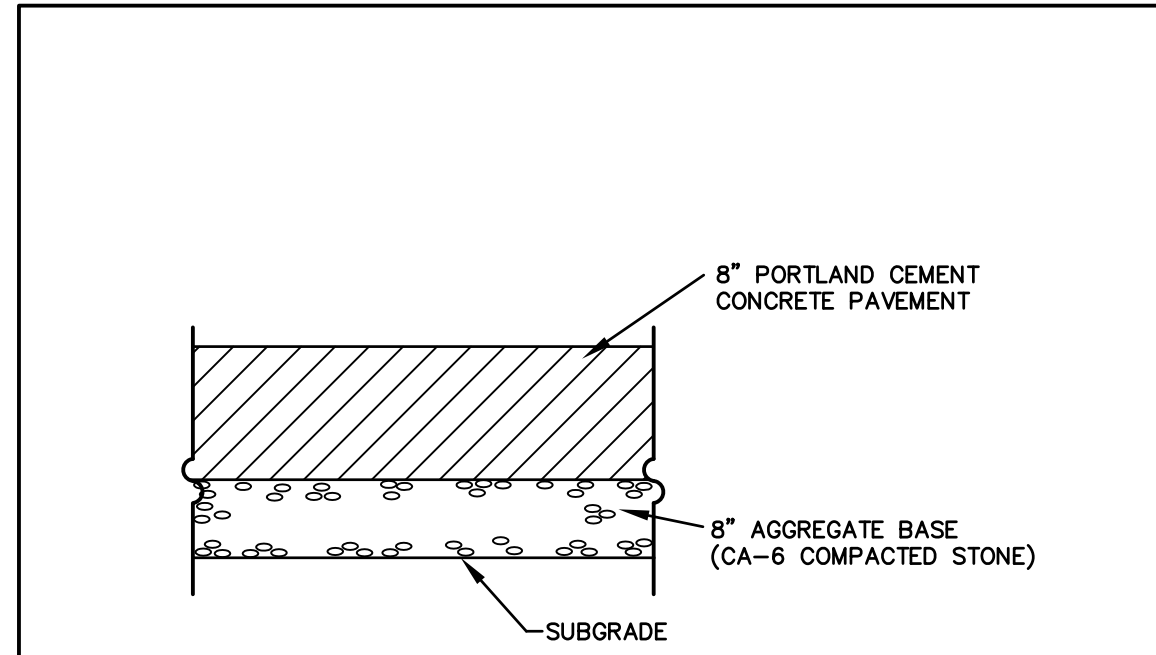
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**SITE DETAILS**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	<b>20</b> OF <b>25</b>

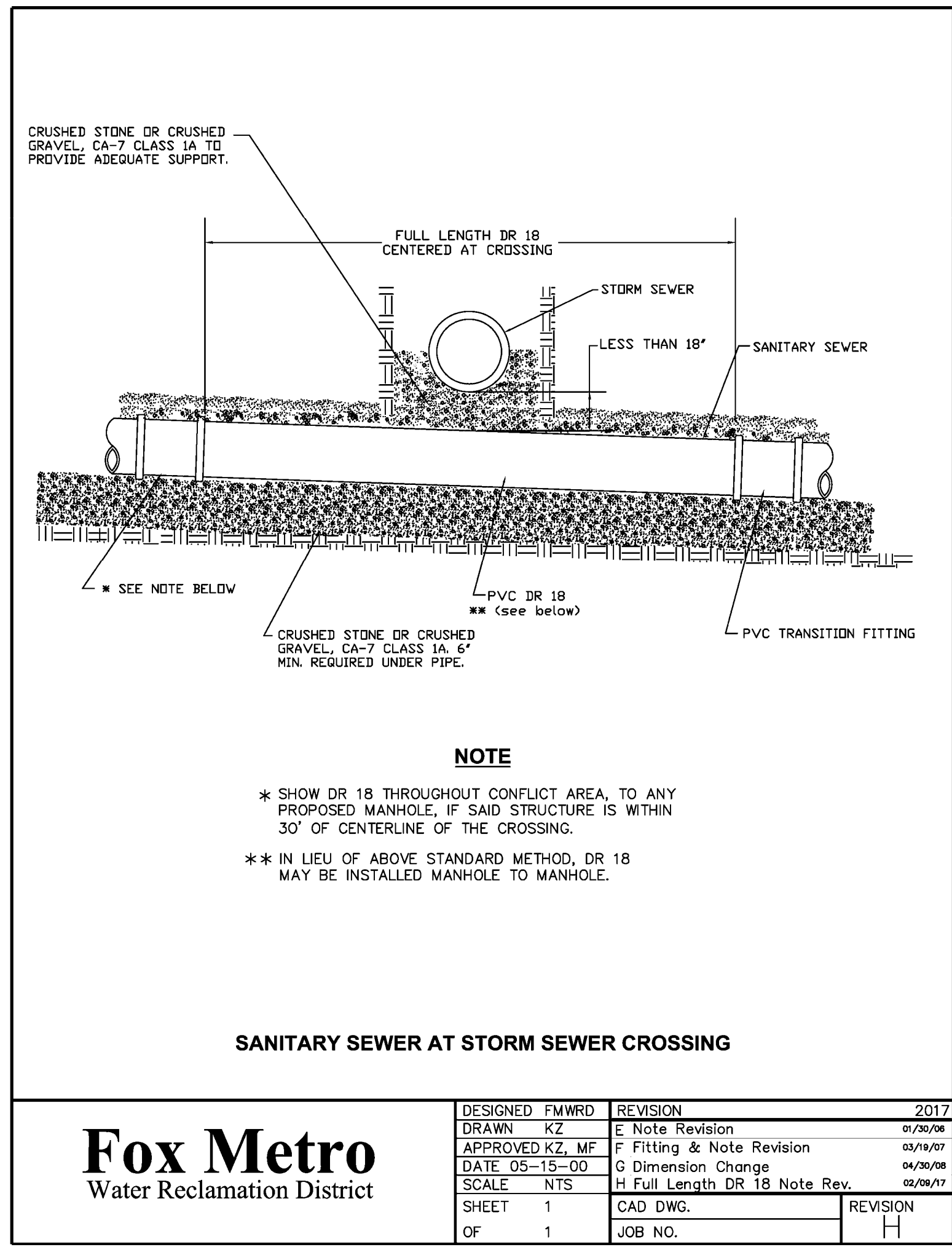
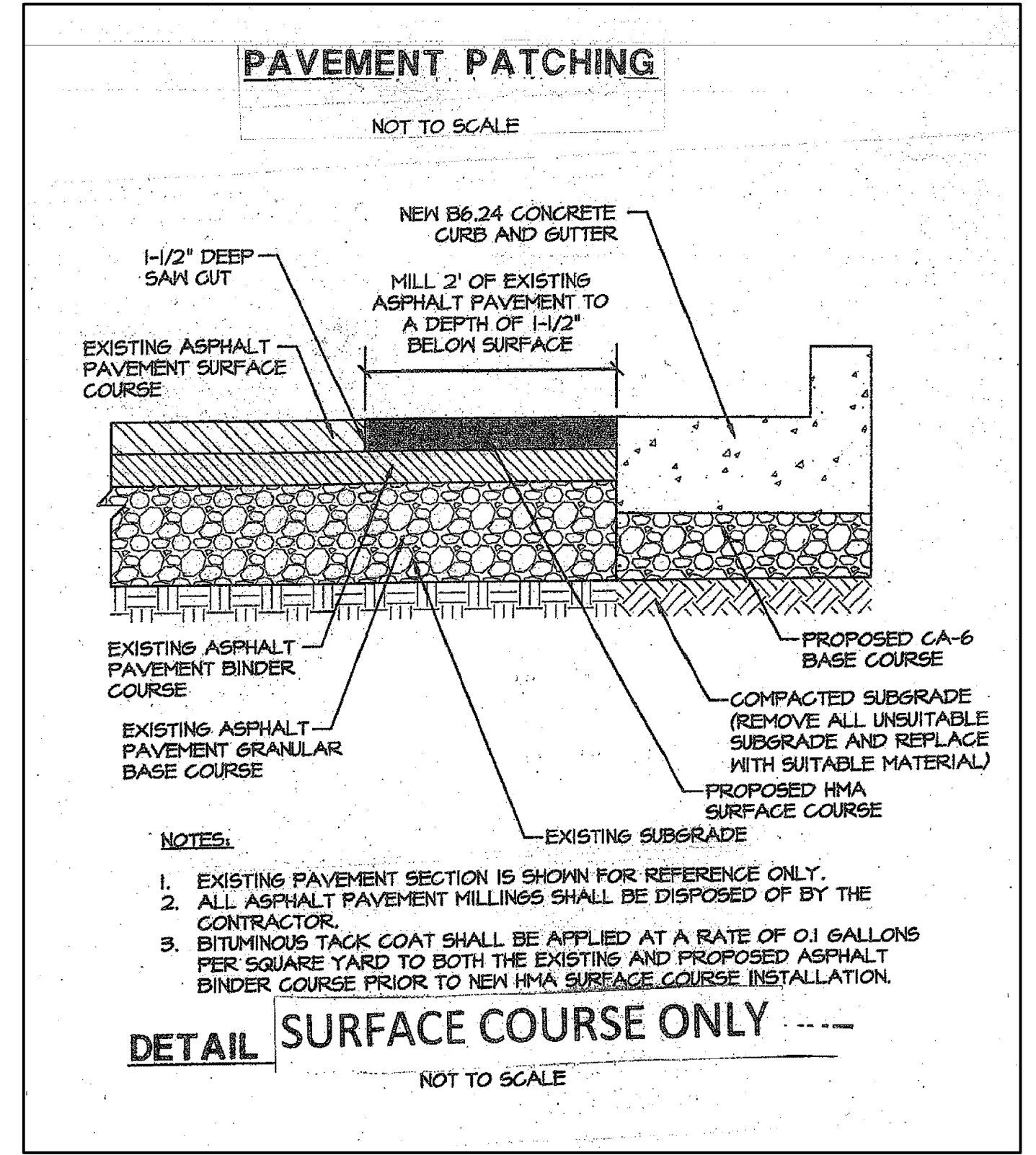
Path: \\S05KRF001\p16039\DWG\FINAL\ENG\16039-COVER



COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**TYPICAL HEAVY DUTY P.C.C. PAVEMENT SECTION**

Engineering Enterprises, Inc. 52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350	SCALE: N.T.S. DATE: 6/4/98	FOLDER: EE-PV	DRAWING NUMBER: PS-07	DRAWN BY: [blank] REVISION: [blank]
--	-------------------------------	---------------	-----------------------	--

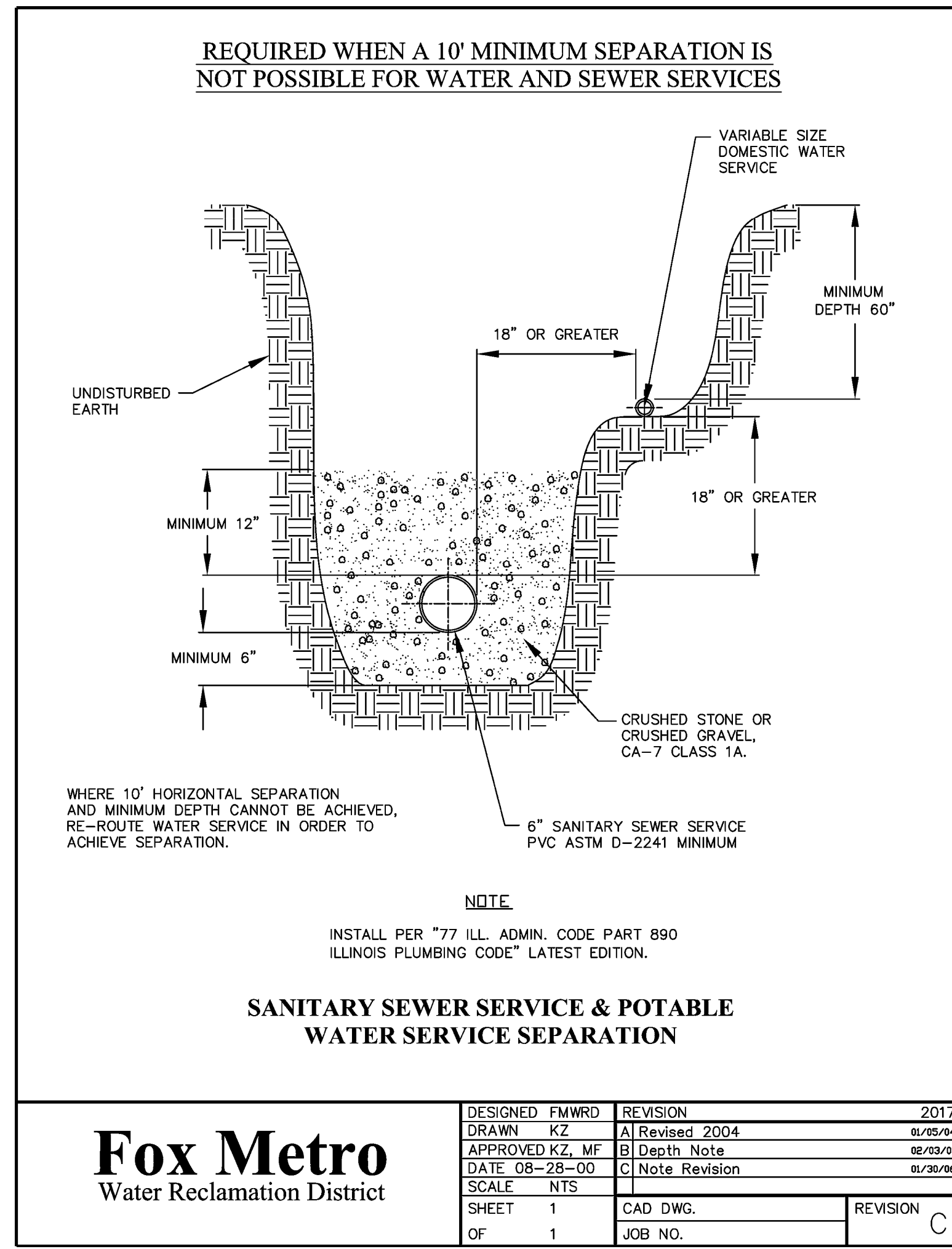


**NOTE**

\* SHOW DR 18 THROUGHOUT CONFLICT AREA, TO ANY PROPOSED MANHOLE, IF SAID STRUCTURE IS WITHIN 30' OF CENTERLINE OF THE CROSSING.

\*\* IN LIEU OF ABOVE STANDARD METHOD, DR 18 MAY BE INSTALLED MANHOLE TO MANHOLE.

<b>Fox Metro</b> Water Reclamation District		DESIGNED FMWRD [blank]	REVISION [blank]	2017
DRAWN KZ	E Note Revision	01/20/08		
APPROVED KZ, MF	F Filling & Note Revision	03/18/07		
DATE 05-15-00	G Dimension Change	04/30/08		
SCALE NTS	H Full Length DR 18 Note Rev.	02/06/17		
SHEET 1	CAD DWG.	REVISION [blank]		
OF 1	JOB NO.	H		

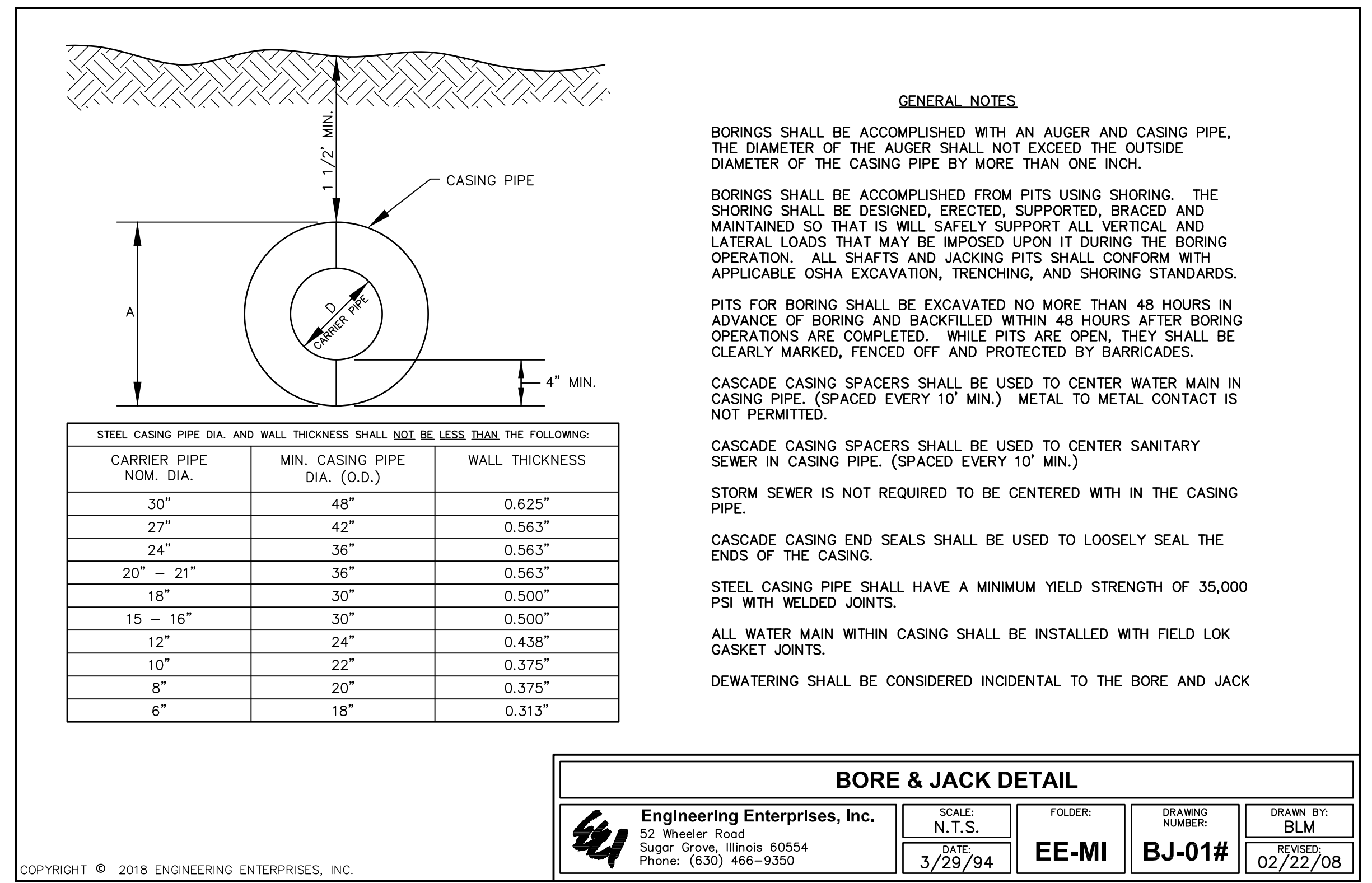


**NOTE**

WHERE 10' HORIZONTAL SEPARATION AND MINIMUM DEPTH CANNOT BE ACHIEVED, RE-ROUTE WATER SERVICE IN ORDER TO ACHIEVE SEPARATION.

INSTALL PER "77 ILL. ADMIN. CODE PART 890 ILLINOIS PLUMBING CODE" LATEST EDITION.

<b>Fox Metro</b> Water Reclamation District		DESIGNED FMWRD [blank]	REVISION [blank]	2017
DRAWN KZ	A Revised 2004	01/25/04		
APPROVED KZ, MF	B Depth Note	02/23/03		
DATE 08-28-00	C Note Revision	01/30/06		
SCALE NTS				
SHEET 1	CAD DWG.	REVISION [blank]		
OF 1	JOB NO.	C		



CARRIER PIPE NOM. DIA.	MIN. CASING PIPE DIA. (O.D.)	WALL THICKNESS
30"	48"	0.625"
27"	42"	0.563"
24"	36"	0.563"
20" - 21"	36"	0.563"
18"	30"	0.500"
15 - 16"	30"	0.500"
12"	24"	0.438"
10"	22"	0.375"
8"	20"	0.375"
6"	18"	0.313"

**GENERAL NOTES**

BORINGS SHALL BE ACCOMPLISHED WITH AN AUGER AND CASING PIPE, THE DIAMETER OF THE AUGER SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE CASING PIPE BY MORE THAN ONE INCH.

BORINGS SHALL BE ACCOMPLISHED FROM PITS USING SHORING. THE SHORING SHALL BE DESIGNED, ERRECTED, SUPPORTED, BRACED AND MAINTAINED SO THAT IT WILL SAFELY SUPPORT ALL VERTICAL AND LATERAL LOADS THAT MAY BE IMPOSED UPON IT DURING THE BORING OPERATION. ALL SHAFTS AND JACKING PITS SHALL CONFORM WITH APPLICABLE OSHA EXCAVATION, TRENCHING, AND SHORING STANDARDS.

PITS FOR BORING SHALL BE EXCAVATED NO MORE THAN 48 HOURS IN ADVANCE OF BORING AND BACKFILLED WITHIN 48 HOURS AFTER BORING OPERATIONS ARE COMPLETED. WHILE PITS ARE OPEN, THEY SHALL BE CLEARLY MARKED, FENCED OFF AND PROTECTED BY BARRICADES.

CASCADE CASING SPACERS SHALL BE USED TO CENTER WATER MAIN IN CASING PIPE. (SPACED EVERY 10' MIN.) METAL TO METAL CONTACT IS NOT PERMITTED.

CASCADE CASING SPACERS SHALL BE USED TO CENTER SANITARY SEWER IN CASING PIPE. (SPACED EVERY 10' MIN.)

STORM SEWER IS NOT REQUIRED TO BE CENTERED WITH IN THE CASING PIPE.

CASCADE CASING END SEALS SHALL BE USED TO LOOSELY SEAL THE ENDS OF THE CASING.

STEEL CASING PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 35,000 PSI WITH WELDED JOINTS.

ALL WATER MAIN WITHIN CASING SHALL BE INSTALLED WITH FIELD LOK GASKET JOINTS.

DEWATERING SHALL BE CONSIDERED INCIDENTAL TO THE BORE AND JACK

<b>Engineering Enterprises, Inc.</b> 52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-9350		SCALE: N.T.S. DATE: 3/29/94	FOLDER: EE-MI	DRAWING NUMBER: BJ-01#	DRAWN BY: BLM REVISION: 02/22/08
---	--	--------------------------------	---------------	------------------------	-------------------------------------

Plotted: November 30, 2018 @ 1:27 PM By: Larry Nolan - Tab: 21 Site Details (22x34)

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS
NO.	DATE	REVISIONS

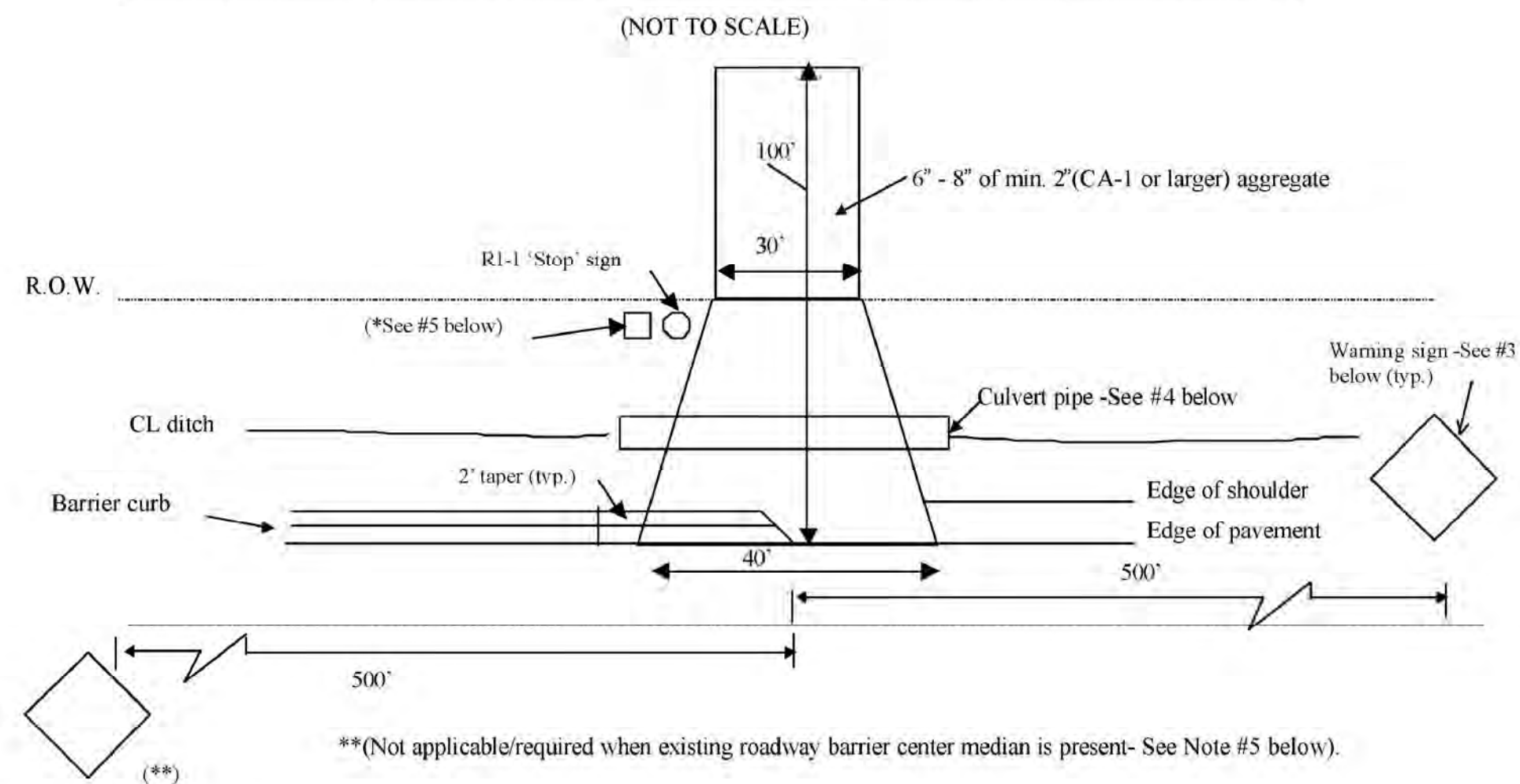
**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**SITE DETAILS**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	21 OF 25

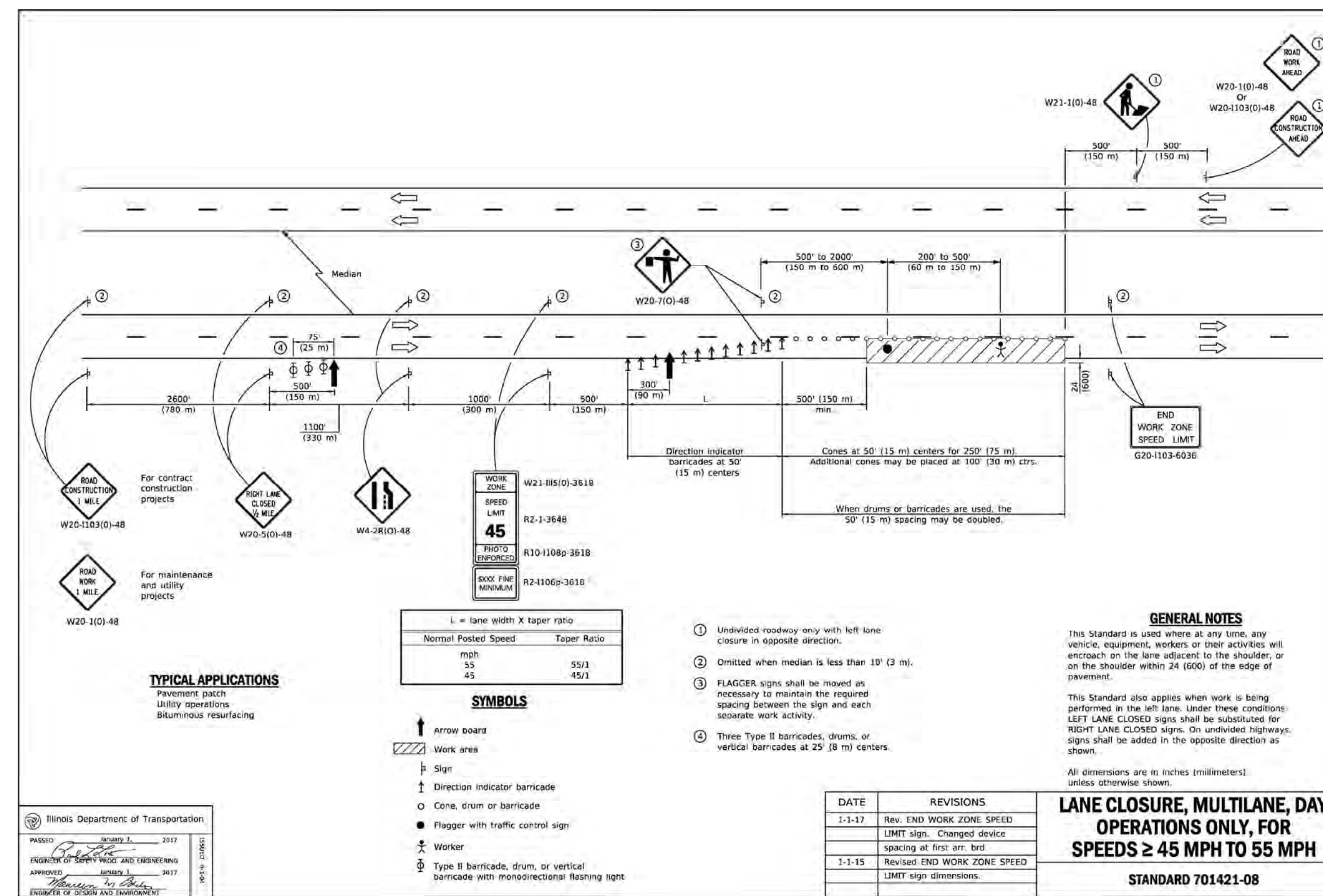
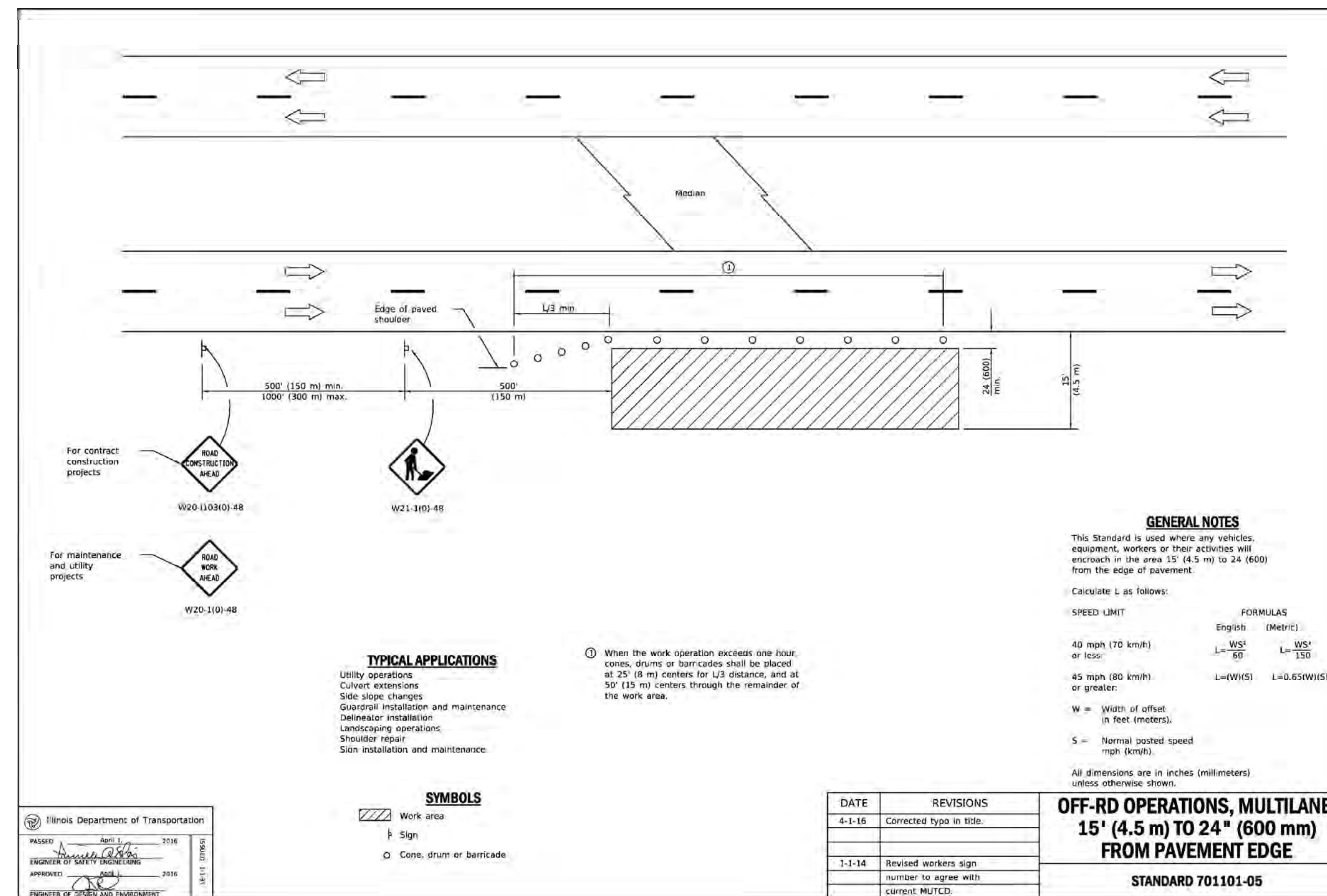
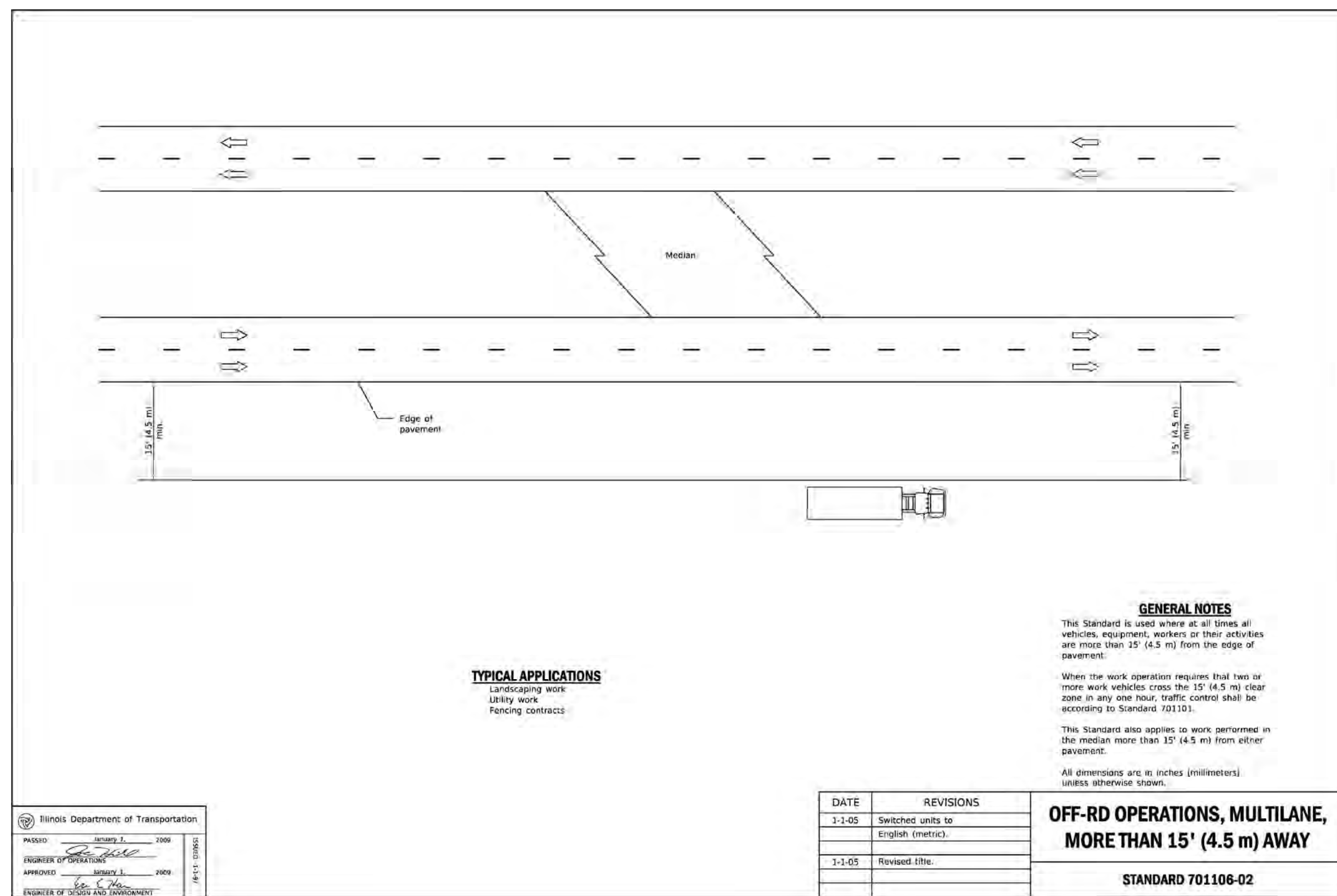
Path: H:\S\SKRPG\16039.DWG FINAL ENG\16039-COVER

**DuPage County Division of Transportation- Temporary Construction Entrance Standard**



- Construction requirements/conditions:**
1. Pavement, curb/gutter and storm structures shall be maintained free of mud/debris at all times. Rubber tired equipment and a street sweeper shall be kept on call on an "as needed" basis at all times during construction.
  2. The petitioner is solely responsible for any repairs and associated costs for replacement to any pavement or curb/gutter adjacent to temporary construction entrance/haul road damaged due to the permitted work.
  3. The petitioner is responsible to erect and maintain the black on orange warning signage until the time that the temporary entrance is removed. Signage shall state be either: "Construction Entrance 500' " or "Trucks Entering and Leaving Highway" according to the M.U.T.C.D. Sign frames shall be sand bagged.
  4. Culvert pipe, if applicable, shall be 15" (min.) dia. x 30" (min.). Side slopes from edge of drive, back of curb and edge of shoulder shall not exceed 3:1.
  - \*5. Barrier median on roadway will require that the petitioner/contractor install an R3-2 "No Left Turn" (symbol) sign (per the M.U.T.C.D.) to prevent outbound cross median traffic.
  6. Disturbed areas of the right of way shall be dressed with a minimum of 6" topsoil and seed (with erosion control blanket or hydro seeding) or sod (salt tolerant and staked in place). Erosion control measures shall comply with the minimum requirements of the DuPage County Stormwater and Floodplain Ordinance specifications at all times.

(TempEntrStd.doc), rjk (2/27/04 Rev. R.K.)



Printed: November 30, 2018 @ 1:27 PM By: Larry Nolan - Tab: 22 Hwy Details (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

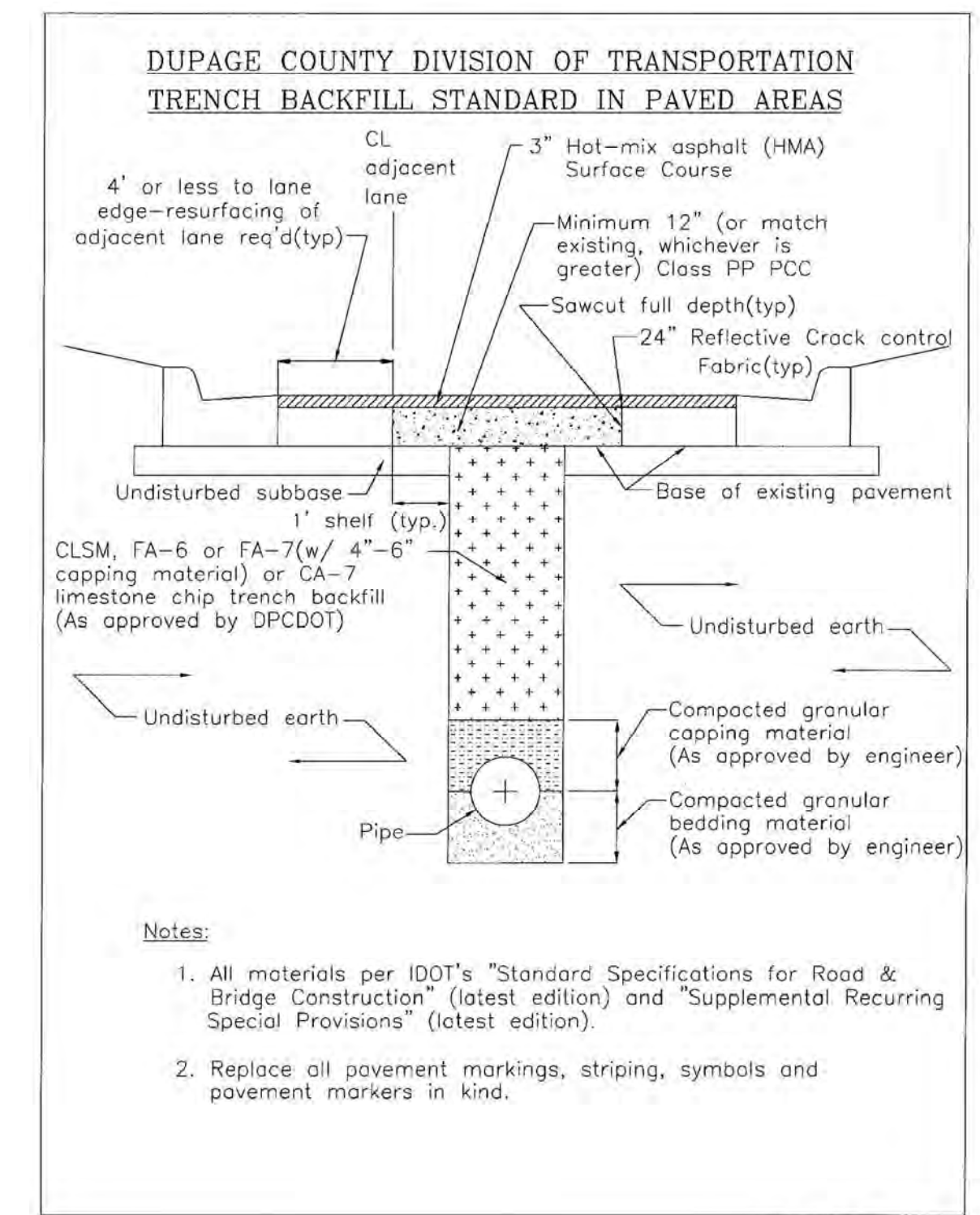
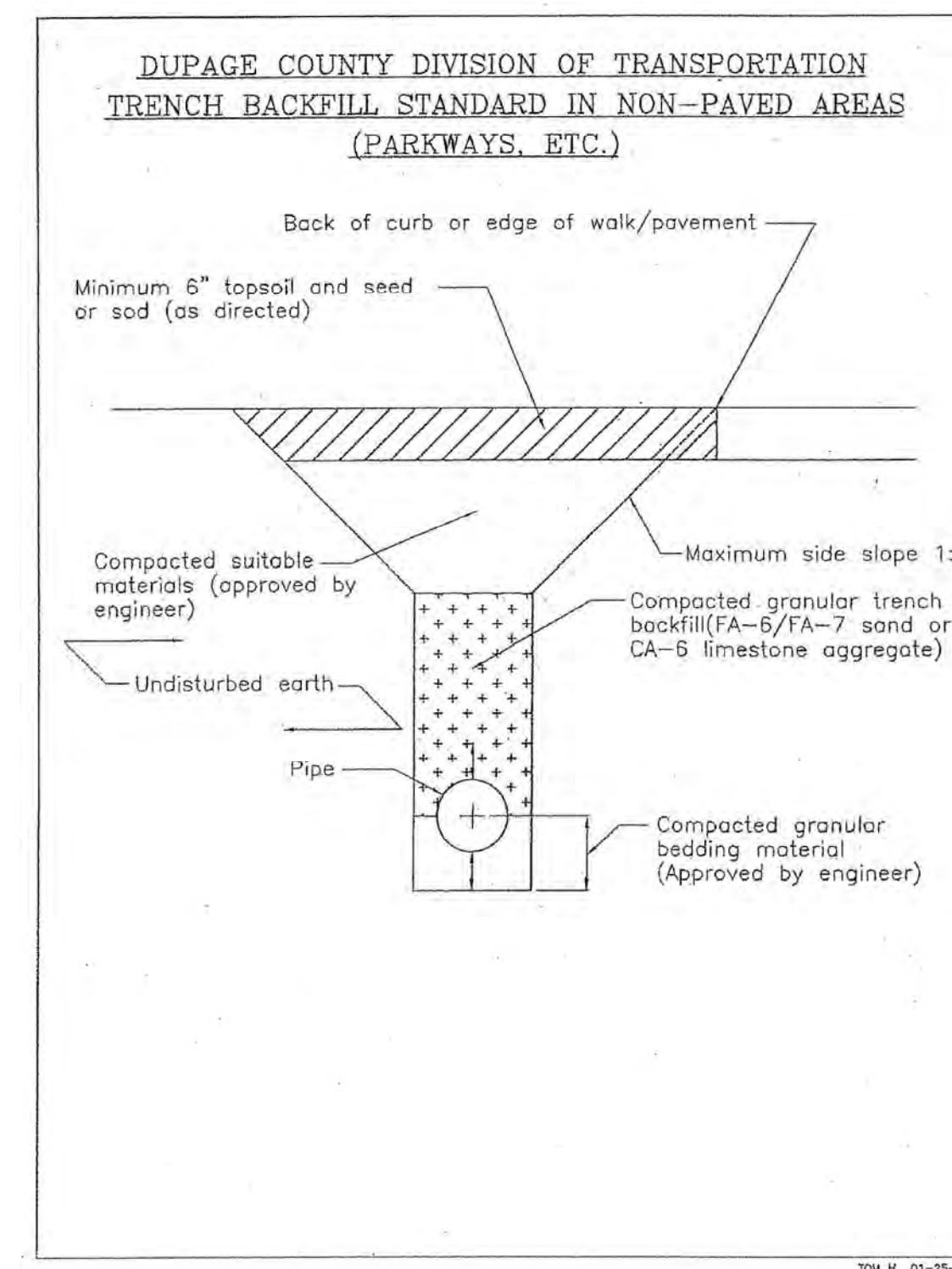
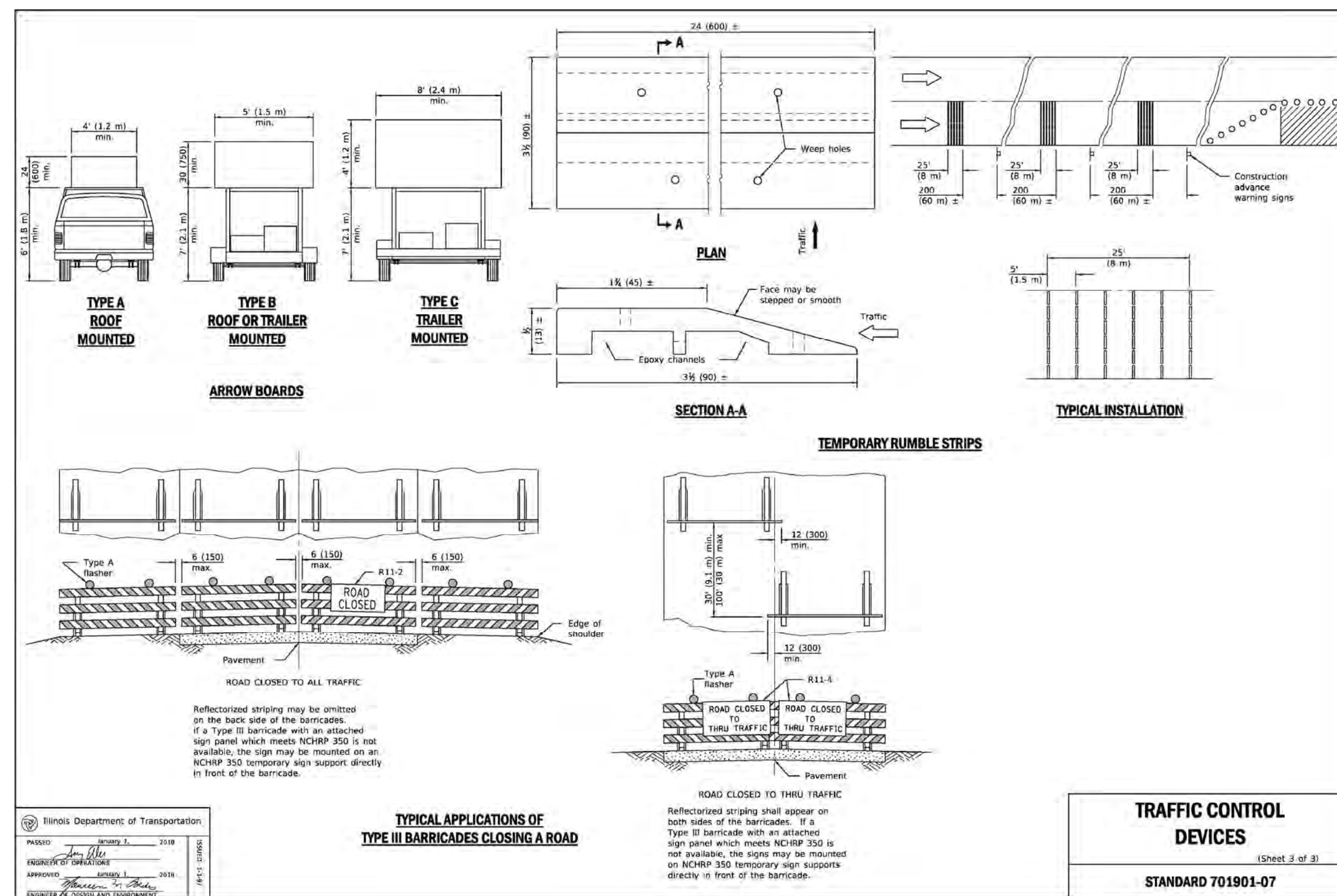
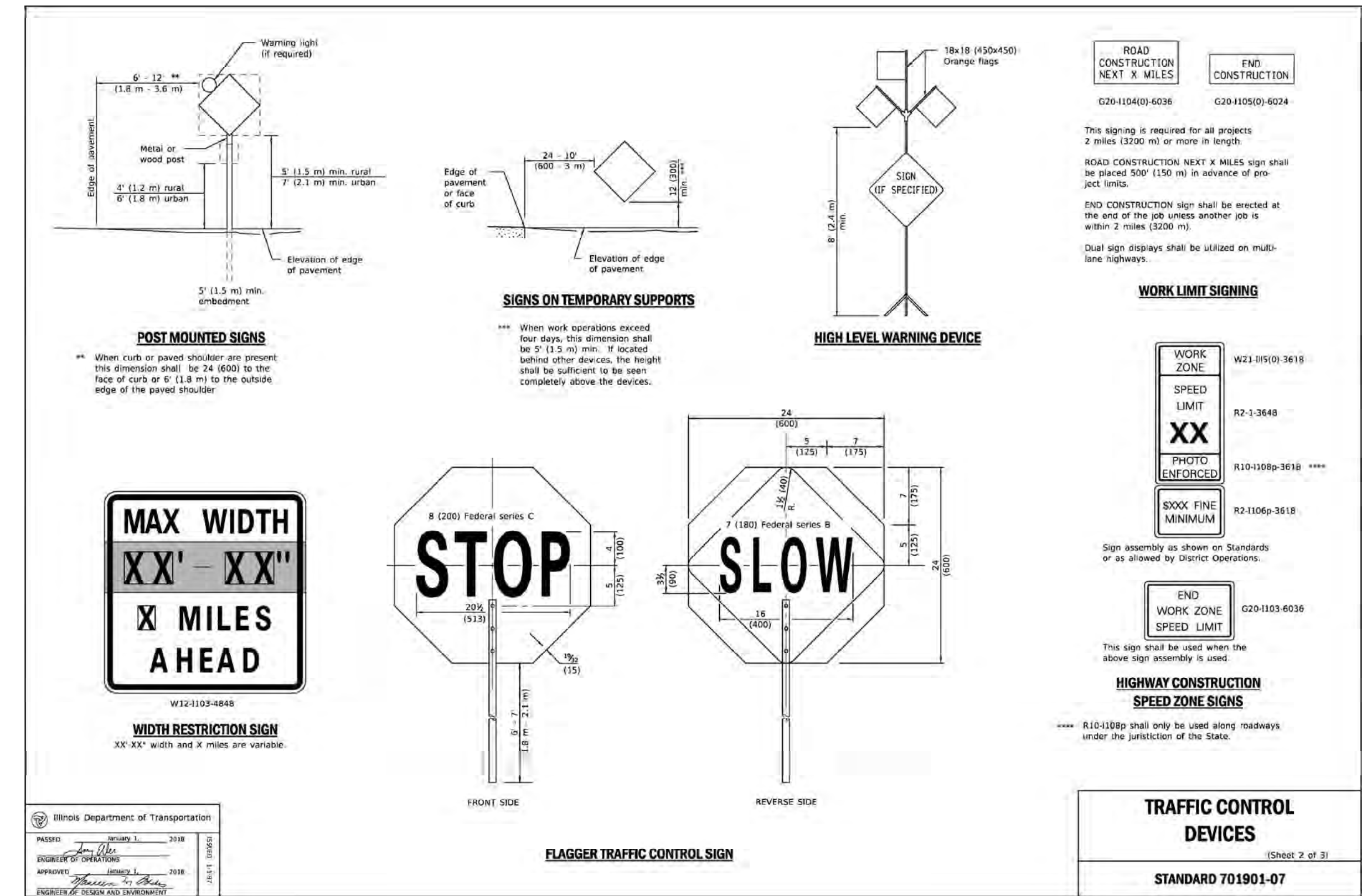
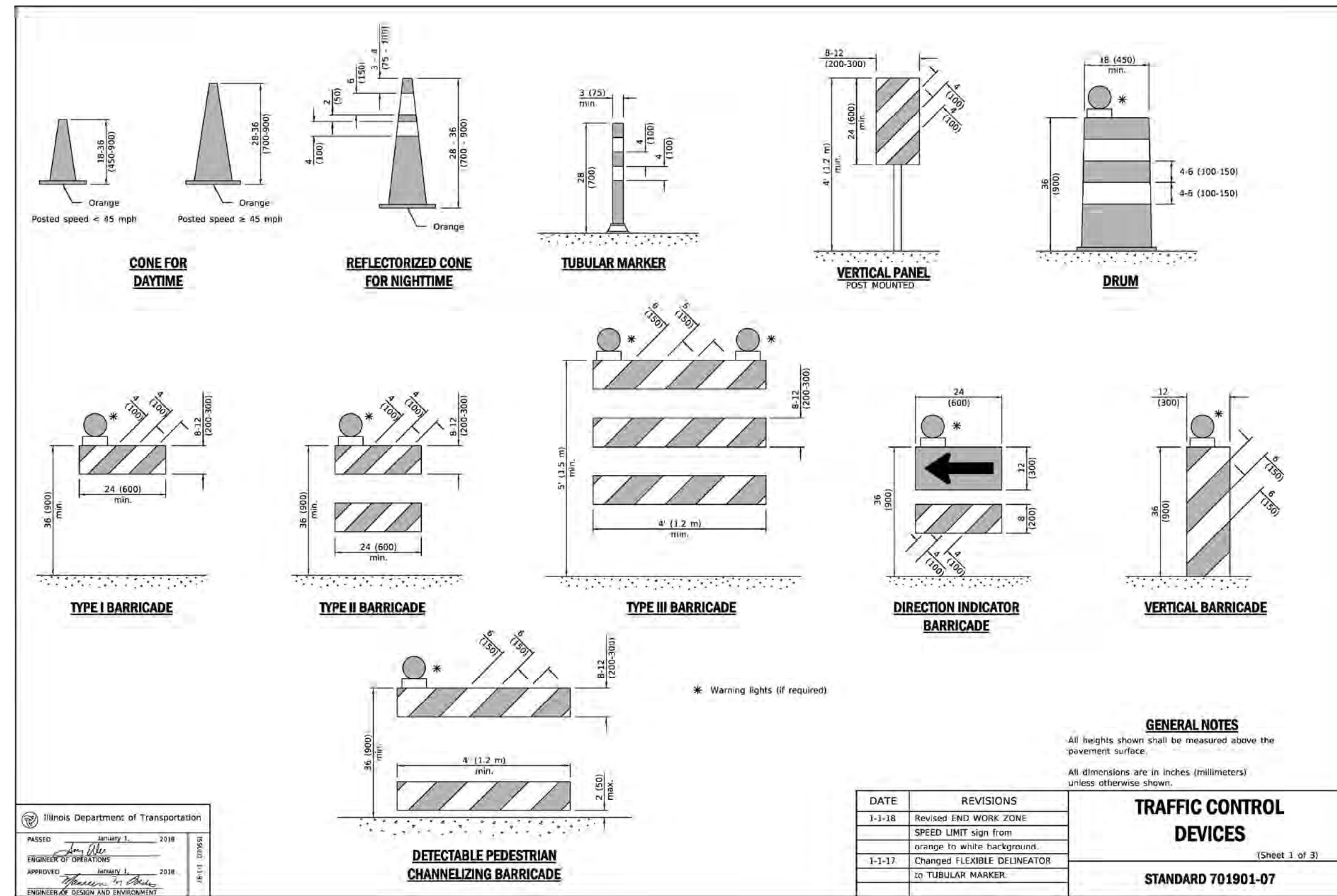
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
 EOLA ROAD SITE  
 AURORA, ILLINOIS

**HIGHWAY STANDARDS**

DATE:	DECEMBER 2018
PROJECT NO.:	P16039
FILE:	P16039-COVER
SHEET	22 OF 25

Path: H:\SOS\PROJ\16039\DWG FINAL ENG\16039-COVER



Plotted: November 30, 2018 @ 1:28 PM By: Larry Nolan - Tab: 23 Hwy Details (22x34)  
 COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

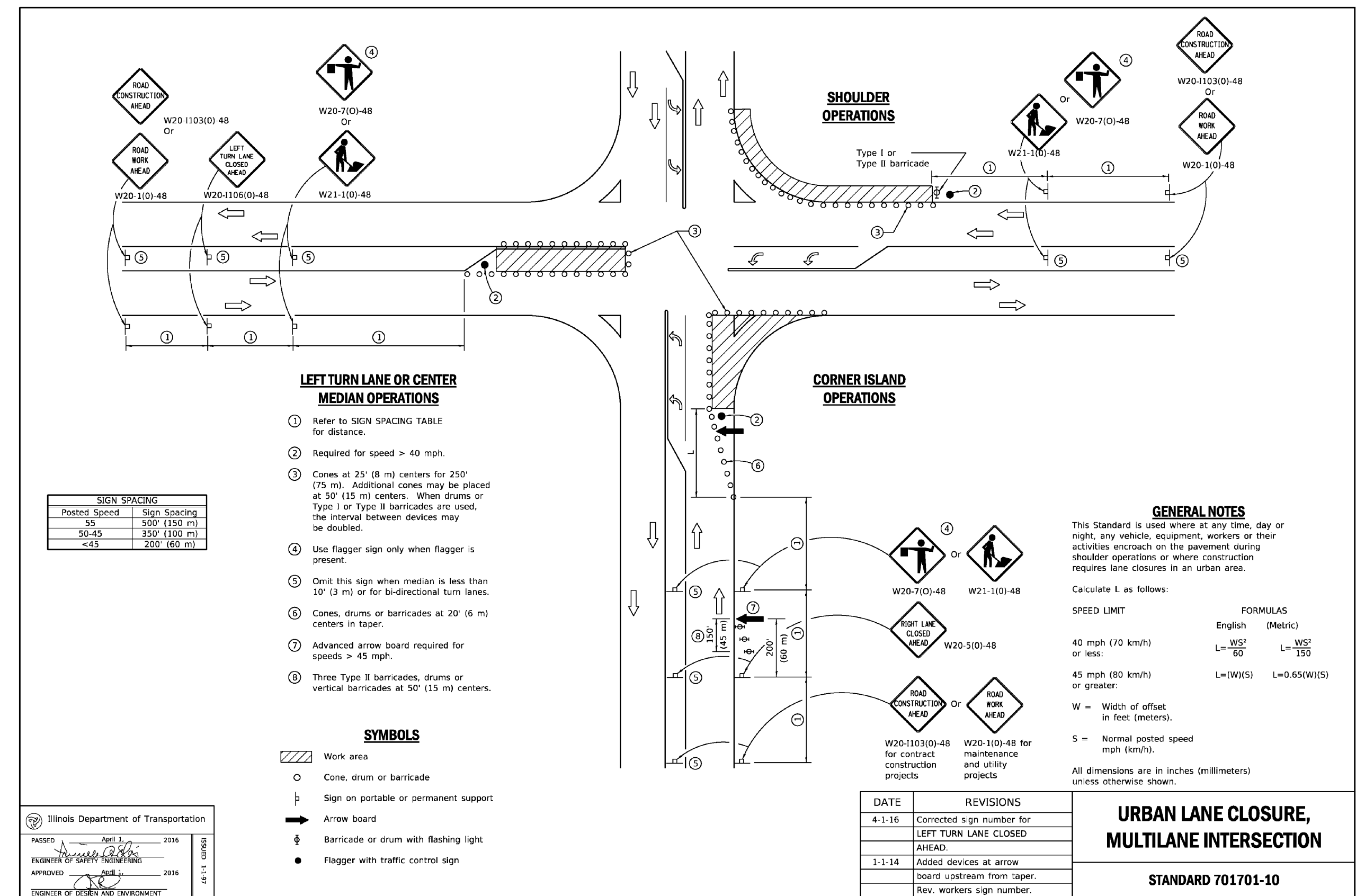
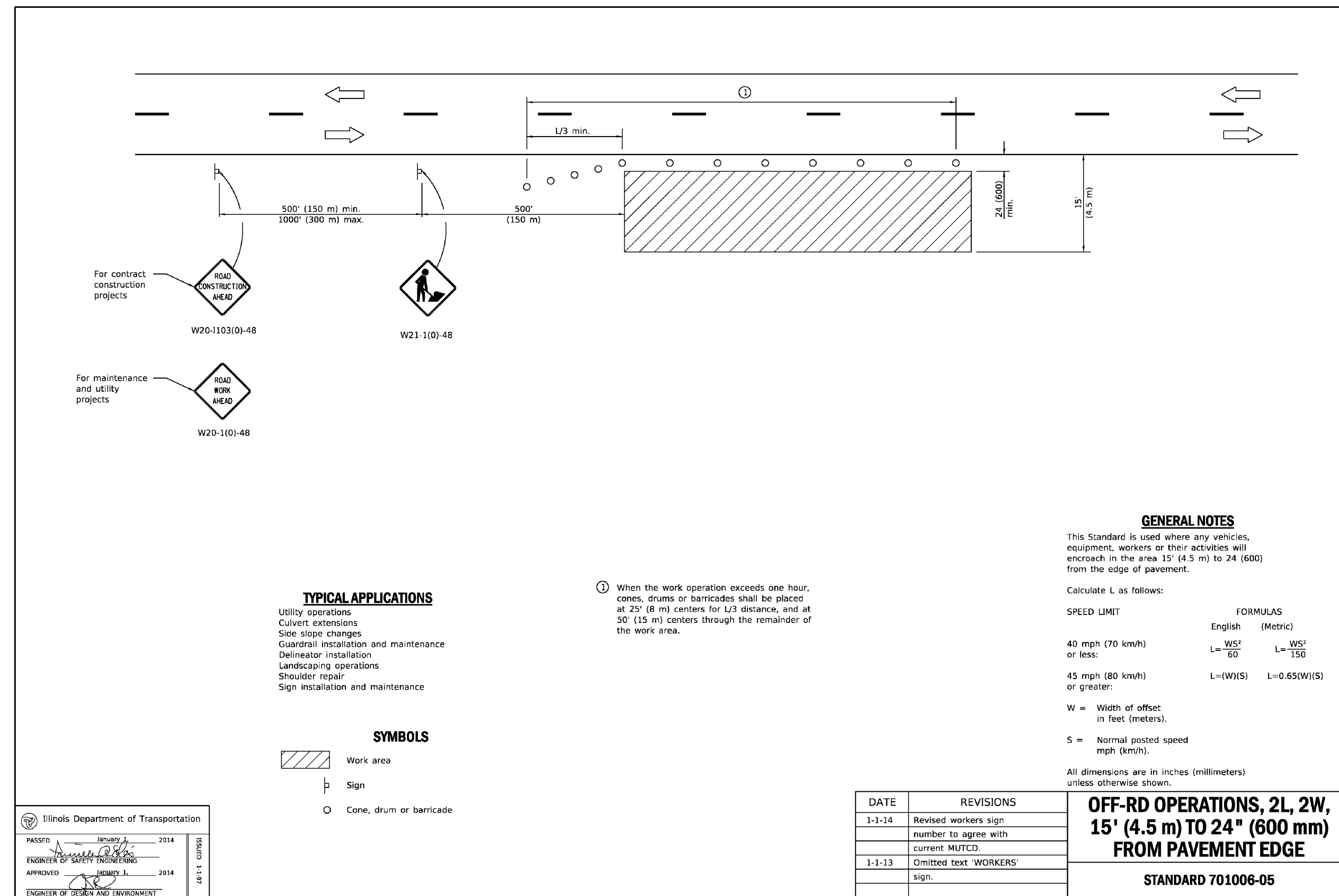
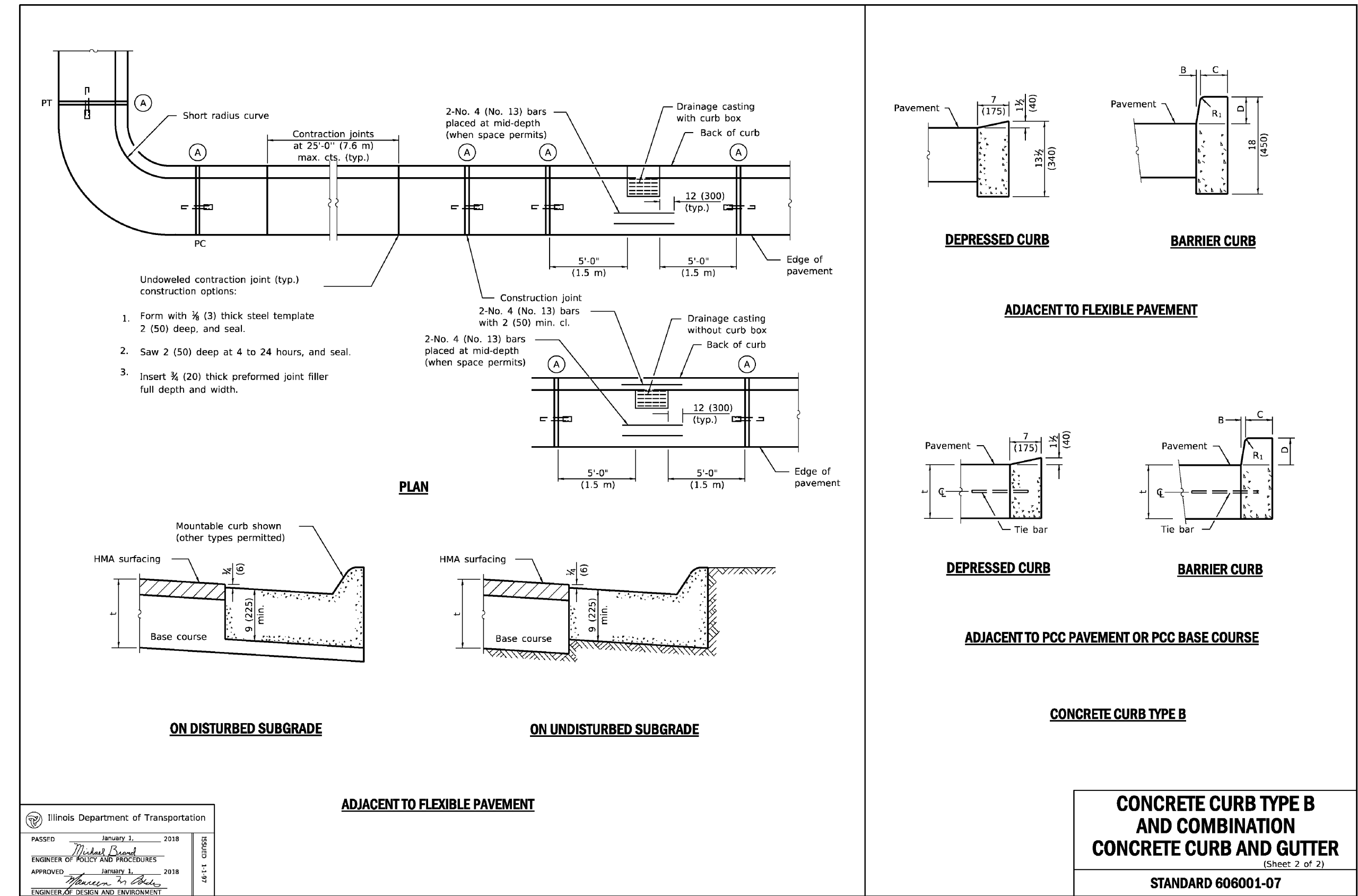
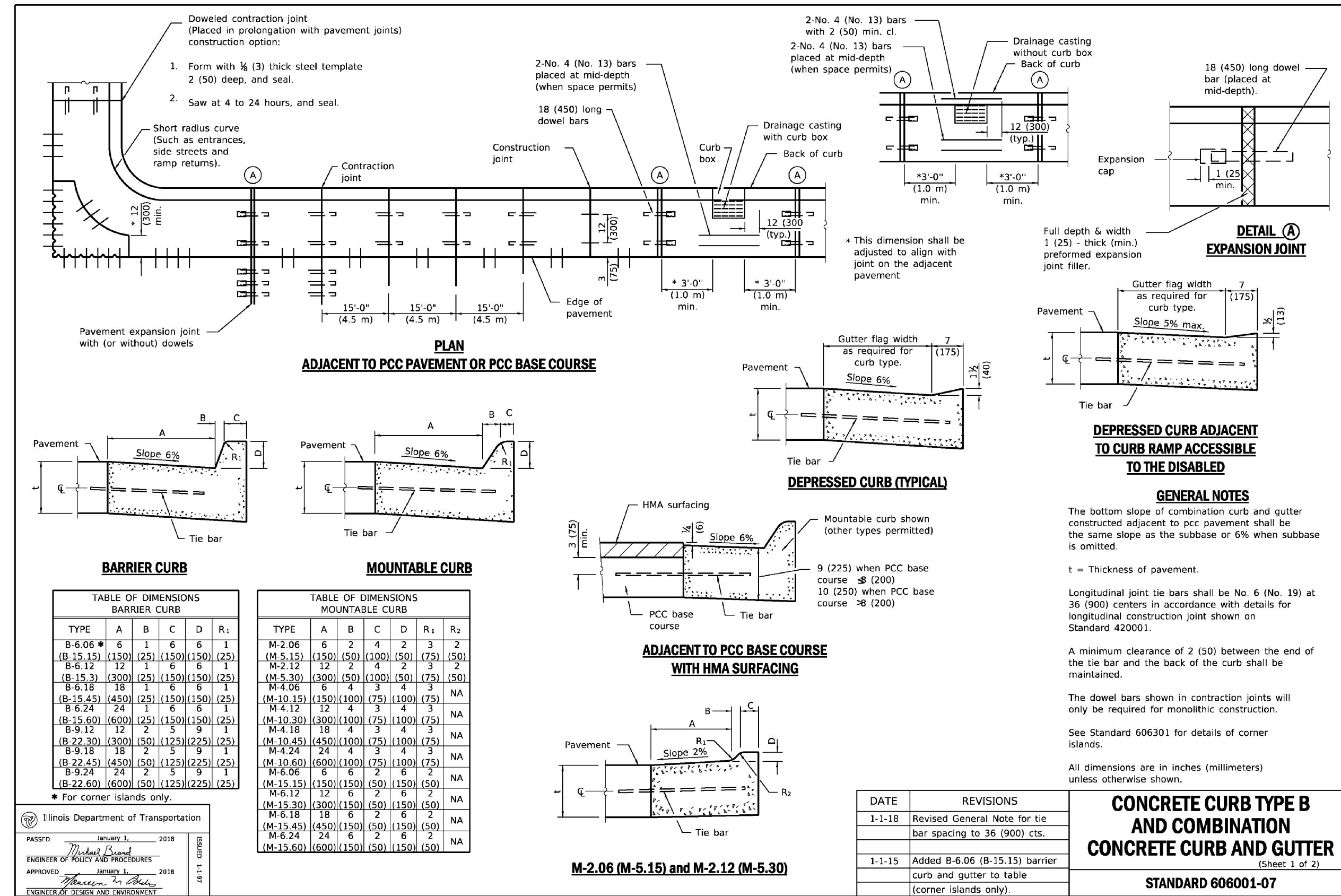
NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**HIGHWAY STANDARDS**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	23 OF 25

Path: \\S05KPR01\p16039\DWG\FINAL\ENG\16039-COVER



Printed: November 30, 2018 @ 1:28 PM By: Larry Nolan - Tab: 24 Hwy Details (22x34)

**Engineering Enterprises, Inc.**  
 CONSULTING ENGINEERS  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554  
 630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
 948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER CCA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	5/16/18	PER CITY AND FOX METRO COMMENTS

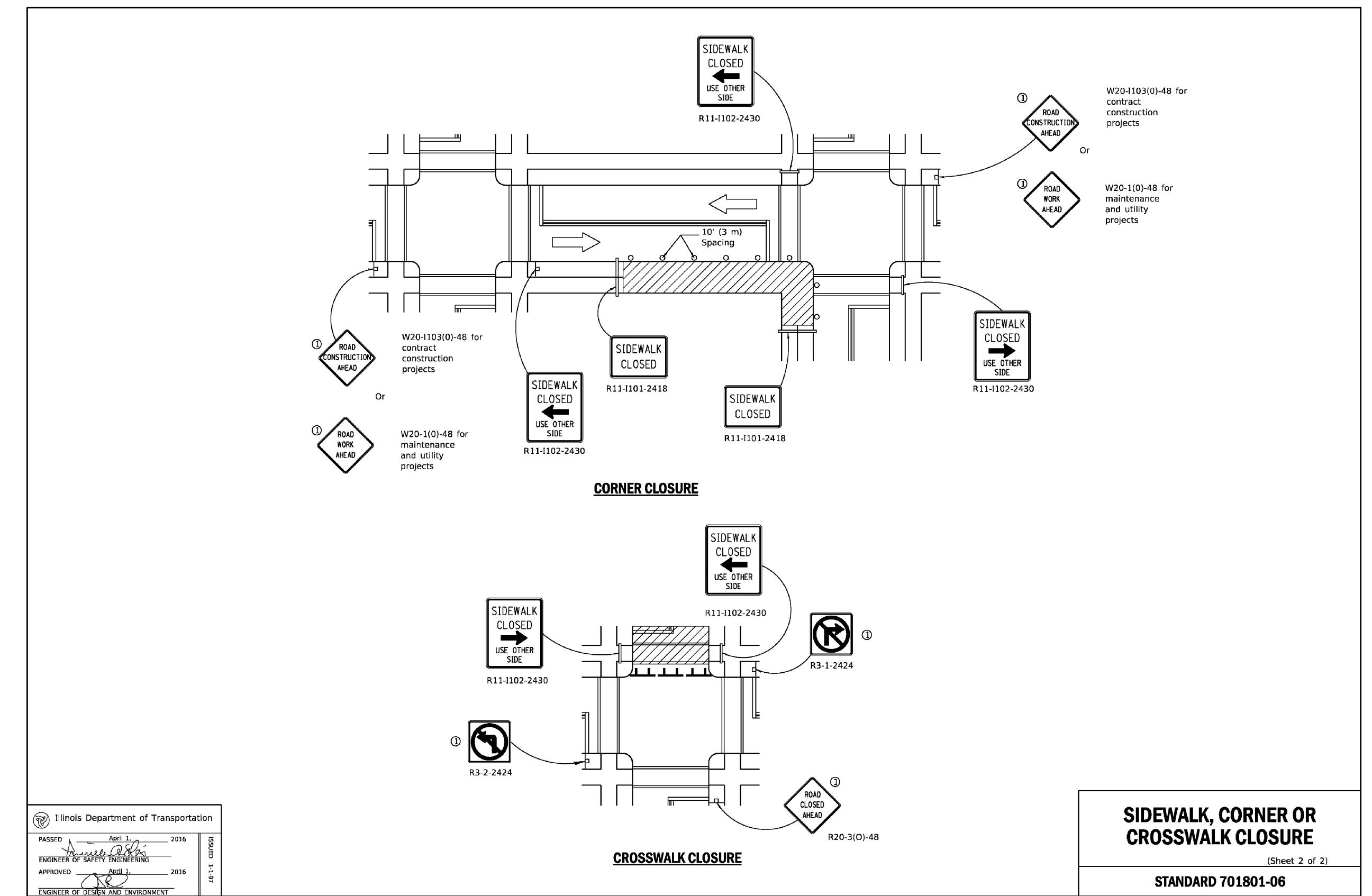
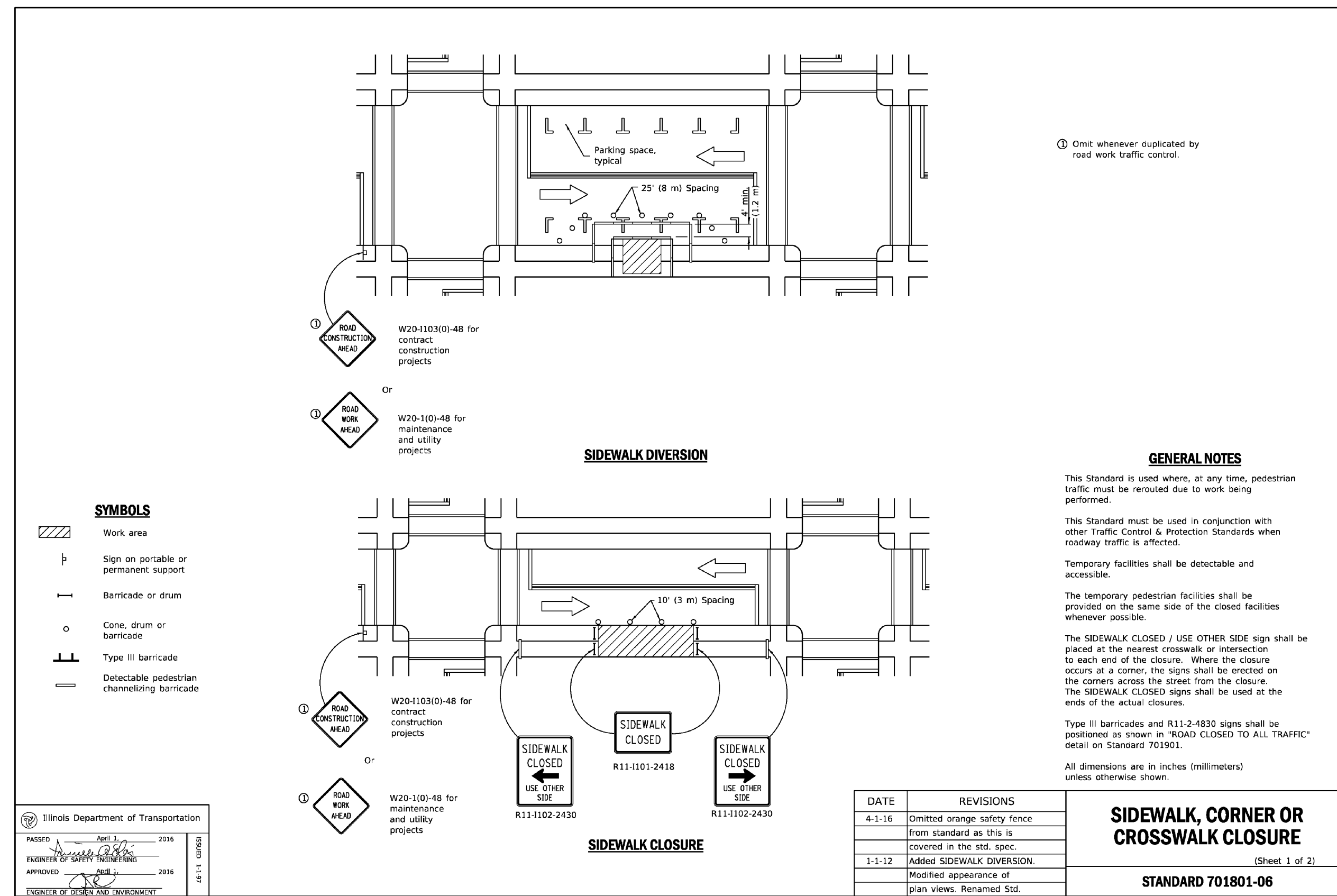
**SCIENTEL SOLUTIONS**  
 EOLA ROAD SITE  
 AURORA, ILLINOIS

**HIGHWAY STANDARDS**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	24 OF 25

Path: H:\SUSKROG\N\16039\DWG FINAL ENG\16039-COVER





Plotted: November 30, 2018 @ 1:28 PM By: Larry Nolan - Tab: 25 Hwy Details (22x34)

COPYRIGHT © 2018 ENGINEERING ENTERPRISES, INC.

**Engineering Enterprises, Inc.**  
CONSULTING ENGINEERS  
52 Wheeler Road  
Sugar Grove, Illinois 60554  
630.466.6700 / www.eeiweb.com

**scientel SOLUTIONS**  
948 SPRINGER DRIVE, LOMBARD, ILLINOIS 60148

NO.	DATE	REVISIONS
9	11/30/18	PER DUPAGE D.O.T. COMMENTS
8	11/08/18	REVISED SITE PLAN PER COA COMMENTS
7	10/01/18	REVISED SANITARY ALIGNMENT
6	5/30/18	PER CITY COMMENTS
5	3/16/18	PER CITY AND FOX METRO COMMENTS

**SCIENTEL SOLUTIONS**  
EOLA ROAD SITE  
AURORA, ILLINOIS

**HIGHWAY STANDARDS**

DATE:	DECEMBER 2018
PROJECT NO:	P16039
FILE:	P16039-COVER
SHEET	<b>25</b> OF <b>25</b>

Path: H:\SOS\PROJ\16039\DWG\FINAL\ENG\16039-COVER

## EXHIBIT D TO EASEMENT AGREEMENT

### ADDITIONAL REQUIREMENT

1. When working in the vicinity of Grantor's electric distribution lines during installation, operation, maintenance or otherwise, OSHA clearance requirements between the booms, arms or other parts that can be raised and ComEd's existing 12,000 volt and 34,000 volt electric distribution conductors must be met. Under no circumstances, shall truck beds be raised underneath Grantor distribution lines. **This note shall be added to any construction drawings.**
2. Any damage to Grantor's property caused by the Grantee shall be repaired at the Grantee's expense.
3. No grade changes are allowed.
4. The Grantee shall not place obstructions on Grantor property (including proposed easement) that will restrict our ability to access, operate and maintain existing and future transmission and distribution facilities. Full, unrestricted access without hindrance shall be available at all times.
5. The Grantee shall not leave trenches open and/or unprotected overnight (i.e. – plating over open trenches or pits).
6. The Grantee shall not leave construction equipment and materials on Grantor Property when there is no work activity. This includes overnight.
7. The Grantor will not be responsible for any damage to the Grantee's facilities that may occur due to the Grantor's right to access the property to operate and maintain new and existing Transmission and Distribution facilities.
8. Upon completion of Grantee's project, the Grantee must remove any equipment, construction debris and material from the easement and restore any disturbed areas of the easement that was not part of the approved project plan to their pre-construction condition.
9. **If Grantor is required to relocate any of its existing facilities as a result of the easements granted by this request, they shall only do so at the Grantee's expense.**
10. Grantee shall be responsible for all excavation at the site to be performed in complete compliance with the appropriate JULIE regulations to ensure the existing Grantor underground Distribution facilities are properly located and protected. Grantees drawings must delineate the Grantor underground facilities accurately (current plans supplied do not clearly delineate Grantor facilities). **Use extreme caution near Grantor underground facilities.** Excavation within three (3') feet of underground Grantor facilities shall only be done by hand excavation methods. (add to Engineering Plan)
11. If any Grantor underground facilities become exposed during excavation, excavation shall cease immediately and Grantor Underground FLS Steve Sylvester shall be contacted immediately @ 630-723-2116. Course of action to be determined after FLS investigation.
12. Minimum 10' excavation distance from any wooden pole; if excavation encroaches 10' from any wooden pole, excavation shall cease immediately and Grantor Overhead Lead FLS Brian Kayzar shall be contacted immediately @ 630-723-2155. Course of action to be determined after FLS investigation
13. If any Grantor Fiber Optic facilities become exposed during excavation, excavation shall cease immediately and contacted Chris Collins at 630-437-3150 immediately. Course of action to be determined after FLS investigation
14. Any activity on Grantor right of way needs to be coordinated through David Holman. Please contact Mr. Holman at 630-467-3605.

15. Any proposed non-Grantor underground facilities (cable, pipe, etc.) shall not cross easement at any angle (to remain parallel or perpendicular only) and shall maintain minimum six (6) feet horizontal separation edge to edge from Grantor facilities.
16. If Grantee determines a line outage is required to work safely within the vicinity of existing Grantor Distribution facilities, up to 8 weeks may be required from time of notification. Outage cannot be guaranteed due to system requirements or configuration.

-Pertaining specifically to the 200' 12" sanitary sewer with 24" steel casing, please note the proposed sewer will be crossing a concrete duct package at approximate station 405+65. The depth of the duct package is to be determined by petitioner and minimum vertical clearance of 1.5' is required between the casing and the duct. If the duct package is undermined support of the duct is required.

### **Environmental**

**Grantee is responsible for all costs** associated with any of the noted requirements (consulting, permitting, clean-up, sampling, audit, etc.).

#### **Easement Requirement**

1. The property may be used only for the stated purpose of the temporary storage of new sewer and casing pipe and installation and maintenance of a sanitary sewer, as submitted in the Improvement Plans for Scientel Solutions Eola Road Site, dated December 2018. Any revision to the plans must be submitted to GRANTOR for review and approval.
2. No hazardous materials, including petroleum products, may be stored, used, or transferred on Grantor property.
3. Grantee will be held responsible for future maintenance of the sanitary sewer. Grantor anticipates that any leaks, spills, overflow, or similar will be addressed by the Grantee at their expense, including any adverse impacts to the surrounding Grantor right of way.
4. In the event of a leak/spill on Grantor property, Grantee must notify Grantor within 24 hours and provide a written report within 5 business days.
5. Grantee is not permitted to change the grading of the property without prior authorization from Grantor. This includes activities of adding gravel or other fill-in activities to the surface of Grantor property.
6. Grantee is responsible for all potential drainage impacts within the easement area for the duration of the easement.
7. Grantee shall provide a KMZ file of the newly installed sanitary sewer on Grantor owned property.

### **Construction Project Requirements**

8. All construction equipment must be free of leaks and any leaks of oils or chemicals that occur must be cleaned up and reported to the appropriate agencies as needed.
9. Daily equipment inspections must be conducted to verify proper working condition before equipment use on Grantor property. Written records of equipment inspections must be available to GRANTOR upon request.
10. Concrete washout activities are not permitted on Grantor property.
11. A spill kit of appropriate size must be present and accessible at all times during construction activities on Grantor property.
12. In the event that drain tiles are damaged, Grantee shall repair or replace, as appropriate, the damaged drain tiles and accept responsibility for any adverse drainage issues and related damages that may arise.

### **Excavation, Spoils and Materials**

13. If the project requires removal of soil or waste from Grantor property, this must be managed by a Grantor Environmental Contractor of Choice (ECOC) and taken to a Grantor approved disposal facility. Clean construction or demolition debris (CCDD) disposal is not permitted.
14. Grading of excess soil is not permitted on Grantor property.
15. If the project requires additional soil and gravel, only certified “clean” fill shall be used. The source of the clean fill must be approved by Grantor. For approval, the following conditions must be met.
  - a) A certificate of virgin material must be obtained from the source of any aggregate material.
  - b) Soils must be certified clean by the source and/or analyzed every 500 cubic yards for total concentrations of the comprehensive suite of parameters listed in Title 35 Illinois Administrative Code (35 IAC) Part 740, Site Remediation Program (SRP) Appendix A, Target Compound List (TCL), and verified to meet the Illinois Environmental Protection Agency’s (IEPA’s) Tiered Approach to Corrective Objectives (TACO) rules (35 IAC Part 742), Tier I Residential Remediation Objectives (ROs).
16. All soil must be managed in accordance with the Illinois Urban Manual guidelines.
17. No construction debris, soil, fill material, or spoils may be stored on Grantor property during or post construction, unless a specific request is reviewed and approved.
18. Environmental sampling is not permitted on Grantor property without written approval and guidance by Grantor.

### **Environmental Regulations and Permits**

19. All applicable regulations must be followed including implementation of a Storm Water Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sediment Control Plan (SESC) to minimize sediment pollution in storm water runoff as well as any other required practices.
20. All applicable environmental permits must be obtained including Wetlands and NPDES stormwater permits, as required under the Clean Water Act as well as any other applicable environmental permits.
21. **Grantee must submit copies of the IEPA WPC-PS-1, IEPA Schedule A/B, and any other required environmental permits and plans to Grantor prior to project start.**
22. Requirements of all permits must be followed which could include site monitoring, reporting, and restoration extending well beyond the construction time period.
23. Grantee must follow all applicable environmental laws and regulations including those not specifically mentioned herein.

### **Wetlands Requirements**

24. According to a review of Grantor resources, wetlands are present within the project area. Grantee must provide Grantor with a Wetland Delineation Report and a KMZ file of any wetlands delineated on Grantor property.

25. Where wetlands are identified on Grantor property, Grantor requires that environmental oversight of the project and inspections are conducted, at the Grantee's expense, by a contractor that is approved by Grantor after review of qualifications. Written records of environmental inspections must be available to Grantor upon request.
26. Discharging from excavation dewatering activities on Grantor property is not permitted within 100 feet of a wetland or waterway.
27. Grantor recommends the use of timber or composite matting over wetland areas that will be crossed during construction and maintenance activities.
28. Grantee must follow all federal, state, and local wetlands requirements, including United States Army Corps of Engineers and DuPage/Kane County regulations and guidelines.

**Condition of Property**

29. Grantee must provide documentation of current property conditions before improvements are started (e.g. Phase 1, a) topographic maps, surveys, photographs.

30. Grantee must provide full restoration of the site to the original condition when the project is complete, including seeding as necessary.

31. **Grantee must provide documentation (including photographs) that the property is returned to its original condition after completion of the project and restoration.**

**Should Grantor request additional information in the future, Grantee must be prepared to provide the following information to Grantor (please reference Project Code SR 4830040 in any communications with ComEd):**

32. A letter that summarizes the results of their analysis of what types of environmental permits, plans, and controls are required (e.g. wetlands, SWPPP, SESCO, and endangered species impacts).
33. A copy of the environmental permit applications for the project.
34. A copy of any environmental reports required by the permits.
35. Copies of certificates of clean fill.
36. Inspection records.

Please contact **Courtney Crenshaw at 630.576.6379**

### **Transmission**

1. Tina Kowalczyk at 1+224-244-1826 will be a single point of contact during the duration of the construction period. Please contact of 48 hours prior to the start and upon completion of the project.
2. The Grantee and/or its contractor cannot change grade within the right-of-way. The Grantee must ensure that the existing drainage is not affected, storm water does not pool on the ROW or adjacent properties and Grantor NESC safety clearances are not violated. No excavation spoils may be spread in the Grantor Right-of-Way.
3. Subsurface utility installations and excavations shall be a minimum of fifteen (15) feet away from any transmission structure. The Petitioners plans appear to accommodate this. In addition, equipment and materials should not enter into the fifteen-foot buffer area.
4. The Grantee should not leave trenches open overnight. Also, the Grantee cannot place obstructions on Grantor property that will restrict our ability to access, operate and maintain existing and future transmission and distribution facilities.
5. The Grantee and/or its contractor are advised that if heavy snow, rains and/or a large amount of water enters the excavation site and/or pooling occurs within the excavation site. The Grantee and/or its contractor must immediately backfill the excavation area and the Overhead Transmission engineering department must be contacted for further instructions.
6. The Grantee equipment cannot exceed fourteen (14) feet in height on the right of way.
7. The Grantee cannot leave construction equipment and materials on Grantor Property when there is no work activity.
8. The Grantee's facilities on Grantor's property should be designed for HS20 axle loading per AASHTO highway specifications in order to withstand Grantor construction traffic.
9. The Grantee is responsible for any research and implementation of cathodic protection or mitigation of induced voltage on the proposed facilities

10. It is recommended that exposed metallic pipe and equipment be grounded according to the Grantee and/or its contractor's safety standard(s) to protect against induced voltages.
11. When working in the vicinity of Grantor's electric transmission lines during the installation, OSHA requires minimum fifteen (15) feet working clearance distance must be maintained between the booms, arms or other parts that can be raised on the equipment for the Grantee's contractor and Grantor's existing 138,000 volt electric transmission conductors, and a minimum twenty (20) feet working clearance distance must be maintained between the booms, arms or other parts that can be raised on the equipment for the Grantee's contractor and Grantor's existing 345,000 volt electric transmission conductors. Under no circumstances, should truck beds be raised underneath Grantor transmission lines. This note should be added to any construction drawings.
12. The Grantor shall not be responsible for any damage to the Grantee's facilities that may occur due to the Grantor's right to access our property to operate and maintain new and existing transmission and distribution facilities.
13. Upon completion of Grantee's project, the Grantee must remove any equipment, construction debris and material from the right-of-way and restore any other disturbed areas of the right-of-way to their pre-construction condition.