TECHNICAL SPECIFICATIONS

VILLAGE OF OSWEGO
OSWEGO, ILLINOIS
BROOKSIDE WATERMAIN REPLACEMENT
CONTRACT 24-6070-14

EXPIRES:
11/30/2025

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10/18/2024

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Issued for Bid
October 18, 2024

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SUMMARY OF WORK

PART 1–GENERAL

1.01 DIVISION ONE

A. The requirements of Division 01 apply to all sections of the Contract.

1.02 PROJECT SCOPE

A. CONTRACTOR shall provide all items, articles, materials, operations or methods mentioned or scheduled on the Drawings or herein specified: including all labor, supervision, equipment, incidentals, taxes, and permits necessary to complete the Work as described within the Contract Documents. CONTRACTOR shall install all items provided by OWNER as mentioned or scheduled on the Drawings or herein specified.

1.03 CONTRACT DOCUMENTS–INTENT AND USE

A. Intent of Documents:
   1. Singular notations and Specifications shall be considered plural where application is reasonably inferred.
   2. Mention or indication of extent of work under any division or Specification section is done only for convenience of CONTRACTOR and shall not be construed as describing all work required under that division or section.
   3. Some individual sections may contain a list of related sections. The list of related sections in individual sections is provided for the convenience of CONTRACTOR and is not necessarily all-inclusive. CONTRACTOR may not rely upon this listing for determination of scope of work. Other sections of the Specifications not referenced in individual sections shall apply as required for proper performance of the Work.
   4. Command type sentences may be used in the Contract Documents. These sentences refer to and are directed to CONTRACTOR.
   5. Symbols for various elements and systems are shown on the Drawings. Should there be any doubt regarding the meaning or intent of the symbols used, a written interpretation shall be obtained from ENGINEER.

B. Use of Documents:
   1. CONTRACTOR shall examine all Specifications and Drawings for the Work, including those that may pertain to Work CONTRACTOR does not normally perform with its own forces.
   2. CONTRACTOR shall use all of the Project Drawings and Specifications:
      a. For a complete understanding of the Project.
      b. To determine the type of construction and systems required.
      c. For coordination with other contractors.
      d. To determine what other work may be involved in various parts or phases.
      e. To anticipate and notify others when work by others will be required.
      f. And all other relevant matters related to the project.
   3. CONTRACTOR is also bound by all requirements of the Contract Documents which are applicable to, pertain to, or affect its Work as may be shown or inferred by the entire set of Project Drawings and Specifications.

1.04 CONSTRUCTION REQUIREMENTS

A. In general, the following contract completion deadlines shall be followed. See General Conditions for specific dates.

B. For Substantial Completion, CONTRACTOR shall by that date, have the water main improvements, HMA patching, pavement resurfacing, driveway replacement, concrete curb and gutter, and concrete sidewalk completed. CONTRACTOR shall restore all disturbed areas. Final restoration shall be complete no later than Final Completion.

1.05 CONTRACTOR USE OF SITE

A. General:
   1. The “area of the site” referred to in these Specifications shall be as shown on the Drawings. If the “area of the site” is not shown, OWNER's property lines, the Project right-of-way and/or any easements obtained for the Project shall be considered the “area of the site.”
   2. Construction activities shall be confined within the “area of the site” limits.
   3. From the start of work to completion CONTRACTOR is responsible for the care of the site and the premises which are affected by operations of Work of this Contract.
   4. Except for permanent site improvements provided under the Contract, CONTRACTOR shall restore property disturbed during the Work, to the conditions which previously existed.
   5. Work in occupied spaces shall be restricted to specified Work and essential activities, such as making necessary connections and extending services or constructing temporary access ways. Such work shall be scheduled in advance with OWNER.

B. Parking and Deliveries:
   1. CONTRACTOR is responsible for control of traffic by vehicles and persons within the limits of its operations.
   2. Parking for employees, subcontractors, and agents of CONTRACTOR shall be in areas subject to approval of OWNER.
   3. Access to the site for delivery of construction material or equipment shall be subject to approval of OWNER.

1.06 EXISTING SERVICES, OVERHEAD UTILITIES, AND UNDERGROUND FACILITIES INCLUDING STRUCTURES

A. Interruption of existing services and systems including water, sanitary, lighting and power, signal and security systems, and similar work shall be kept to an absolute minimum and shall be limited to times approved by OWNER.

B. If deemed necessary by OWNER, such work shall be accomplished after OWNER’s normal office hours.

C. Work shall not commence until all labor, materials, and equipment are available so Work can continue without interruption or delay.

D. Should uncharted or incorrectly charted services or Underground Facilities be encountered during installation, notify OWNER and consult with utility owner immediately.

E. Cooperate with OWNER and utility companies in keeping respective services and Underground Facilities in operation and repair any damage.

F. CONTRACTOR shall not interrupt existing services and Underground Facilities occupied and used by OWNER or others, except when permitted in writing by OWNER.

G. Any accidental interruption of services and Underground Facilities shall be repaired immediately, including provision of temporary facilities until permanent repairs can be made.

H. Prior to any excavation, demolition, or drilling on site, CONTRACTOR shall contact owners of the Underground Facilities in and near the construction area of the intent to excavate, demolish, or drill. As part of this notification requirement, CONTRACTOR shall contact "JULIE" (811 or 1-800-892-0123). CONTRACTOR shall be aware that not all owners participate in "JULIE." A call to this agency shall not absolve CONTRACTOR of the requirements for contacting owners of all Underground Facilities in and near the construction area. CONTRACTOR shall give reasonable advance notice to "JULIE" and other owners for the notification which shall not be less than the minimum advance notification required.

I. Locations and elevations of services and Underground Facilities as shown on the Drawings are approximate. It shall be CONTRACTOR's responsibility to determine their exact location when in their vicinity. To this end, CONTRACTOR shall proceed with caution in the excavation and preparation of the Site so the exact location of services and Underground Facilities can be determined. CONTRACTOR shall include in the Contract Price any costs for temporary or permanent relocations of such services and Underground Facilities required to complete the Work unless specifically indicated otherwise in the Specifications.

J. Where potential grade conflicts might occur with existing services and Underground Facilities, CONTRACTOR shall uncover such services and Underground Facilities sufficiently in advance of construction so that elevations may be determined to allow any necessary adjustments to be made.

K. CONTRACTOR shall coordinate with overhead utility companies prior to the Work. CONTRACTOR shall provide all necessary temporary and permanent support relocation or temporary and permanent restraint to maintain overhead utilities in service.

L. CONTRACTOR shall keep an accurate and complete record of all such services and Underground Facilities encountered and shall provide OWNER a copy of this record. The record shall include a description of the item encountered, opinion as to conditions, and adequate measurements and depths so that the item can be located in the future.

M. CONTRACTOR shall inspect all services and Underground Facilities for condition and soundness. Unsound conditions shall be reported to OWNER immediately after exposing. CONTRACTOR shall not proceed with the Work until the service or facility owner has been notified. Service or facility owner shall then be given time to inspect and correct, if required, the service or Underground Facility. CONTRACTOR may make claim under the provisions of Paragraph 11 of the Contract should CONTRACTOR feel a price or time adjustment is justified.

N. Any additional costs incurred because of failure of CONTRACTOR to report the condition of any and all existing services and Underground Facility encountered shall be paid for by CONTRACTOR.

O. Whenever ENGINEER feels it is necessary to explore and excavate to determine the location of existing services and Underground Facilities, CONTRACTOR shall make explorations and excavations for such purposes. If CONTRACTOR is required to perform additional Work in making the explorations and excavations, extra compensation will be allowed as provided for in the Contract.

1.07 PROTECTION OF WORK AND IMPROVEMENTS

A. CONTRACTOR shall protect the property of OWNER, existing improvements, and the Work installed by CONTRACTOR and others from abuse, damage, dust, debris, and other objectionable materials resulting from construction activities.

B. CONTRACTOR shall provide suitable covers, partitions, or other dust and fume containment devices to suit construction operations.

C. CONTRACTOR shall keep property, existing improvements, and the Work including structures, mains, fittings, and accessories free from dirt and foreign matter at all times.

D. CONTRACTOR shall provide temporary plugging of openings, holes, and pipe ends that are existing or that CONTRACTOR has installed.

E. Property, improvements, and Work damaged by CONTRACTOR shall be repaired or replaced by CONTRACTOR to the satisfaction of OWNER.

F. CONTRACTOR is cautioned that existing private and public roads and shoulders may not hold up to typical construction traffic or activities. CONTRACTOR shall replace all roads, shoulders, and paved areas damaged during the project in accordance with this section. Gravel shoulders, gravel roads, and parking areas shall be repaired in accordance with Section 32 11 23–Aggregate Base Course.

1.08 AVAILABILITY OF LANDS

A. Easements were not obtained for this Project. CONTRACTOR shall confine its operations, equipment and storage areas to the lands and rights-of-way in which the Project is to be located. CONTRACTOR may enter into written agreements with property owners for use of other lands during construction. Copies of such agreements shall be provided to OWNER.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 29 00

CONTRACT CONSIDERATIONS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Cash Allowances for Miscellaneous Additions.
   2. Measurement and Payment–Unit Prices.

1.02 CASH ALLOWANCES FOR MISCELLANEOUS ADDITIONS

A. This item is to provide for additional budget in the Contract for additional scope of work that may be required, but is not specifically included in the Drawings and Specifications and/or work that may be included in the Drawings and Specifications but that is not covered by a Contract pay item prior to the bidding process.

B. All work shall conform to the appropriate articles of the current edition of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, (herein referred to as the Standard Specifications), OWNER ordinances, OWNER details, and specifications that are considered industry standards or standards set forth by a governing body (i.e., IDOT, FRWRD, MUTCD, etc.) for the furnishing, fabrication, installation, or removal of the included items.

C. All furnished material shall conform to the appropriate articles of the Standard Specifications, OWNER ordinances, OWNER details, and Specifications that are considered industry standards or standards set forth by a governing body (i.e., IDOT, FRWRD, MUTCD, etc.) for the furnishing, fabrication, installation, or removal of the included items.

D. All materials resulting from this extra work shall be disposed of at CONTRACTOR's expense, outside of the limits of the job, at locations acceptable to OWNER, and in accordance with Section 107.01 of the Standard Specifications, as amended by Public Act 90-761.

E. This item shall be measured for payment in the appropriate dimensions for the Work performed.

F. CONTRACTOR shall include in the Bid, a Sum of 1 unit at the amount per unit identified of $30,000.00 for Base Bid for miscellaneous additions to the project at OWNER's discretion. Only additional work, as approved by OWNER in writing, will be eligible for payment. Additional work may consist of items such as additional connection to an existing water main of odd size, sanitary sewer improvements not identified, or other construction items that may be deemed necessary by OWNER to add to the project and not otherwise identified as an identified Bid item.

1.03 MEASUREMENT AND PAYMENT–UNIT PRICES

A. Measurement methods are delineated in the individual Specification sections.

B. CONTRACTOR shall take measurements and compute quantities. ENGINEER will check measurements and quantities.

C. Incidental Items of Work: Any items of Work shown on the Drawings or called for in the Specifications, but not included in the Bid Form, shall be considered incidental items of Work. The cost of incidental items of Work shall be included in the prices bid for adjacent Work.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 31 00

COORDINATION, FIELD ENGINEERING, AND MEETINGS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Coordination.
   2. Field Engineering.
   3. Progress Meetings.
   4. Preconstruction Video.
   5. Subsurface Conditions.

1.02 COORDINATION

A. CONTRACTOR shall coordinate scheduling, submittals, and work of the various sections of the work to provide an efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. CONTRACTOR shall verify utility requirements and characteristics of operating equipment are compatible with building utilities and coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.

C. CONTRACTOR shall coordinate completion and cleanup of Work of separate sections in preparation for substantial completion and for portions of Work designated for OWNER's occupancy.

D. After OWNER occupancy of premises, CONTRACTOR shall coordinate access to Site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of OWNER's activities.

1.03 FIELD ENGINEERING

A. CONTRACTOR shall locate and protect property stakes, legal survey monuments, benchmarks, and survey control and reference points. CONTRACTOR shall pay for replacement of disturbed property stakes and legal survey monuments by a Registered Land Surveyor acceptable to OWNER and for replacement of benchmarks and survey control and reference points provided by ENGINEER.

B. CONTRACTOR shall provide field engineering services as required to establish elevations, lines, and levels utilizing recognized engineering survey practices.

C. CONTRACTOR shall furnish all required plummets and graduated poles to check all Work.

D. If stakes and boards have to be reset because of negligence of CONTRACTOR, CONTRACTOR shall bear the cost of such work.

E. If laser beam is used, CONTRACTOR shall check its Work against intermediate grade stakes provided between manholes. Prior to initial use of the laser, CONTRACTOR shall set

up laser on ground surface and check line and gradient controls. Lasers not functioning properly shall be immediately removed.

F. CONTRACTOR shall be responsible for all lines, elevations, and measurements of buildings, structures, piping, utilities, and other work executed by CONTRACTOR under the Contract. CONTRACTOR must exercise proper precaution to verify figures before laying out the Work and will be held responsible for any error resulting from its failure to exercise such precaution.

1.04 PROGRESS MEETINGS

A. Progress meetings will be held throughout progress of the Work at intervals agreed to by OWNER, ENGINEER, and CONTRACTOR. Interval will generally be monthly.

B. CONTRACTOR's project manager, job superintendent, major subcontractors, and suppliers shall attend as appropriate to address agenda topics for each meeting. CONTRACTOR's representatives shall have authority to bind CONTRACTOR to decisions at the meetings.

C. The project schedule shall be updated monthly and shall be reviewed at each progress meeting.

D. CONTRACTOR shall also provide the following information in written form at each meeting.
   1. Construction progress, including:
      a. Activities completed this reporting period.
      b. Activities in progress this reporting period.
      c. Activities scheduled to commence this reporting period.
   2. Description of problem areas.
   3. Current and anticipated delays.
      a. Cause of the delay.
      b. Corrective action and schedule adjustments to correct the delay.
      c. Impact of the delay on other activities, on milestones, and on completion dates.
   4. Changes in construction sequence.

E. ENGINEER will prepare and distribute minutes to all attending parties.

1.05 PRECONSTRUCTION VIDEO

A. Prior to mobilization at the site, CONTRACTOR shall furnish to ENGINEER a high-resolution color audio-video recording of all planned construction areas, including but not limited to streets, driveways, sidewalks, curbs, fencing, visible utilities, retaining structures, and adjacent building structures. The purpose of the video is to document existing conditions and to provide a fair measure of required restoration. Care should be taken to record all existing conditions that exhibit deterioration, imperfections, structural failures, or situations that would be considered substandard.

B. The video recording shall be performed by a professional firm specializing in audio-video work. The videos shall be high quality, color, and high-resolution. The video shall be provided in a digitized format that is supported by Window Media Player. The videos shall be provided via DVD, thumb drive, or other media requested by OWNER. Temporary lighting shall be provided as necessary to properly video areas where natural lighting is insufficient (indoors, shadows, etc.). The videos shall include an audio soundtrack, to provide the following information.

1. Detailed description of location being viewed referenced to Contract Drawings (i.e., station number, building designation, pipeline route, etc.).
2. Direction (N, S, E, W, looking up, looking down, etc.) of camera view.
3. Date, time, temperature, and environmental conditions at time of video.

C. Video recording shall not be performed during inclement weather or when the ground is covered partially of totally with snow, ice, leaves, etc.

D. As many videos as are necessary to satisfy the requirements of this section shall be prepared. The original videos shall be submitted to ENGINEER accompanied by a detailed log of the contents of each video. The log should include location descriptions to facilitate the quick location of information contained in the videos. The videos will be maintained by ENGINEER during construction and may be viewed at any time by CONTRACTOR upon request. Upon final acceptance, the videos will become permanent property of OWNER.

E. All costs associated with this shall be included in the Unit Price Bid for this Work.

1.06 SUBSURFACE CONDITIONS

A. Underground Facilities: Underground facilities are shown or indicated on the Drawings. Information and data regarding the presence or location of underground facilities are not intended to be categorized, identified, or defined as Technical Data, which is identified as such below with respect to existing subsurface conditions at or adjacent to the site.

B. Reliance by CONTRACTOR on Technical Data: CONTRACTOR may rely upon the accuracy of the Technical Data expressly identified below with respect to such reports and drawings, but such reports and drawings are not Contract Documents.

C. Limitations of Other Data and Documents: CONTRACTOR may not rely upon or make any claim against OWNER or ENGINEER, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. The completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto;
2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. The contents of other Site-related documents made available to CONTRACTOR such as record drawings from other projects at or adjacent to the Site, or OWNER's archival documents concerning the Site; or
4. Any CONTRACTOR interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

D. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which CONTRACTOR may rely:

Report Title	Date of Report	Technical Data
Geotechnical Engineering Services Report Brookside Water Main Replacement, Various Streets, Oswego, Illinois, prepared by Rubino Engineering, Inc.	October 10, 2024	Boring methods, level of substrate water, boring logs, laboratory test methods and results, and boring locations

ENGINEER accepts no responsibility for accuracy of the soil data or water level information. Soil information, included with these Contract Documents, was not obtained for the purposes of designing excavations and trenches. Soil information was used by ENGINEER for design purpose only. CONTRACTOR shall assure itself by personal examination as to subsurface conditions and shall provide its own investigations and make its own assumptions to comply with OSHA and any other applicable laws and regulations regarding excavation and trenching requirements.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Whenever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or by reference to recognized industry standards.
   2. To facilitate CONTRACTOR's understanding of the design intent, procedures have been established for advance submittal of design data and for its review or rejection by ENGINEER.
   3. The type of submittal requirements specified in this section include construction progress schedule, submittal schedule, shop drawings, product data, samples, maintenance manuals, and other miscellaneous work-related submittals.

B. Related work described elsewhere: More detailed requirements for submittals are described in other sections of these Specifications for some materials and equipment. They are to be considered additional requirements to supplement the requirements specified in this section. Submittals shall conform to the requirements specified herein.

C. Definitions: "Electronic Submittal" is defined as any submittal transmitted electronically to ENGINEER for review.

1.02 IDENTIFICATION OF SUBMITTALS

A. CONTRACTOR shall completely identify each submittal and resubmittal by showing at least the following information:
   1. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.
   2. Name and location of project and identification number.
   3. Drawing number and Specifications section number to which the submittal applies.
   4. Include the date of each submittal or resubmittal.

1.03 GROUPING OF SUBMITTALS

A. Unless otherwise specifically permitted by ENGINEER, CONTRACTOR shall make all submittals in groups containing all associated items so that information is available for checking each item when it is received.

B. Partial submittals may be rejected as not complying with the provisions of the Contract Documents.

1.04 TIMING OF SUBMITTALS

A. CONTRACTOR shall make all submittals far enough in advance of scheduled dates of installation to provide required time for reviews, for securing necessary approval, for possible revision and resubmittal, and for placing orders and securing delivery.

B. The review period for submittals that are received after 3 P.M. shall commence on the following business day.

1.05 CONSTRUCTION PROGRESS AND SUBMITTAL SCHEDULES

A. Submit preliminary schedules within 10 days of the Effective Date of the Contract.

B. Revise schedules incorporating any comments provided at the preconstruction meeting.

C. As a minimum, the construction progress schedule shall consist of a horizontal bar chart with a separate line for each major portion of Work or operation, identifying first workday of each week.

D. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration for each activity. Identify activities that are on the critical path.

E. Include line items for milestones (if any), Substantial, and Final Completion.

F. Submit updated schedules with each Application for Payment, identifying changes since previous version.

G. Indicate estimated percentage of completion for each item of Work at each submission.

H. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.06 SHOP DRAWINGS

A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.

B. CONTRACTOR shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.

C. Shop drawings shall be checked, approved, and stamped by CONTRACTOR before transmittal to ENGINEER for review and approval.

D. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 50% completion of the Work. Applications for payment beyond 50% of the Contract amount will not be recommended for payment until all shop drawings are submitted, including color hard copies if requested by OWNER, or a revised schedule for any remaining submittals is agreed to by OWNER and ENGINEER.

E. CONTRACTOR shall submit shop drawings following the electronic submittal procedure described below.

F. Shop drawings submitted to ENGINEER will be reviewed and stamped “Approved,” “Approved as Noted,” “Approved as Noted-Resubmit,” or “Not Approved.” CONTRACTOR shall resubmit shop drawings stamped “Approved as Noted-Resubmit” and “Not Approved,” and will continue this process until shop drawings are stamped “Approved” or “Approved as Noted.” If Drawings are stamped “Approved as Noted-Resubmit,” fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped “Approved” or “Approved as Noted.”

G. If shop drawings are stamped “Approved as Noted” or “Approved as Noted-Resubmit” and CONTRACTOR does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of CONTRACTOR’s position.

H. All shop drawings used for construction site activities shall bear the “Approved” or “Approved as Noted” stamp of ENGINEER.

I. PDF Submittal Procedures:
   1. Summary:
      a. Shop drawing and product data submittals shall be transmitted to ENGINEER in electronic (PDF) format.
      b. The intent of PDF submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
      c. The PDF submittal process is not intended for color samples, color charts, or physical material samples.
   2. Procedures:
      a. CONTRACTOR shall review and apply a stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer/product, dimensions and coordination of information with other parts of the work.
      b. CONTRACTOR shall transmit each cover letter and submittal to ENGINEER as an e-mail attachment.
      c. ENGINEER will return the reviewed shop drawing via e-mail with a transmittal letter, after review, indicating the status of the shop drawing review.
      d. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of CONTRACTOR.
      e. Electronically submitted shop drawings shall follow the following format:
         (1) All files shall be delivered in PDF format with a minimum resolution of 300 dpi unless otherwise requested by ENGINEER. Scanned in material shall be scanned in color and any markings by CONTRACTOR shall be made in red. Pages shall be rotated to the appropriate position for easy reading on a computer monitor such that the majority of text is vertical.
         (2) Files shall be delivered without security features activated.
         (3) Shop Drawings shall be uploaded as individual files. All pages of one submittal should be contained in one file.
         (4) The file shall open to a cover page containing, at a minimum, the following information:
            (a) CONTRACTOR’s stamp.
            (b) Name, e-mail, and telephone number of the individual who may be contacted for further information.
            (c) Project number.
            (d) Submittal number.

(e) Submission date, if resubmittal, all previous submission dates.
(f) Index detailing contents and the total number of pages in the submittal.

J. Shop drawings shall include verification that the item meets applicable codes and standards.

1.07 PRODUCT DATA

A. CONTRACTOR shall provide product data as required to supplement shop drawings.

B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CONTRACTOR to illustrate a material, product, or system for some portion of the work.

C. CONTRACTOR shall collect required product data into one submittal for each unit of work or system.

D. CONTRACTOR shall include manufacturer’s standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.

E. CONTRACTOR shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.

F. CONTRACTOR shall supplement manufacturer’s standard data to provide information unique to the work.

1.08 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by ENGINEER.

B. Shop Drawings and Product Data:
1. Revise initial drawings or data and resubmit as specified for initial submittal.
2. Itemize in a cover letter any changes which have been made other than those requested by ENGINEER.

C. CONTRACTOR shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. ENGINEER will record ENGINEER's time for review subsequent submittals of shop drawings, samples, or other items required for approval and CONTRACTOR shall reimburse OWNER and ENGINEER's charges for such time.

D. In the event that CONTRACTOR requests a substitution for previously approved item, CONTRACTOR shall reimburse OWNER for ENGINEER's charges for its review time unless the need for such change is beyond control of CONTRACTOR.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
1. OSHA Requirements.
2. 35 III. Adm. Code 652.
3. 35 Ill. Adm. Code 1100.
4. Roadway Limits.
5. Permits.
6. Wage Rates.
7. Build America, Buy America Requirements.

1.02 OSHA REQUIREMENTS

A. All work including site safety, equipment, materials, and fabricated items provided under the Contract shall comply with the provisions of the “Occupational Safety and Health Act.”

1.03 35 ILL. ADM. CODE 652

A. CONTRACTOR shall comply with 35 Ill. Adm. Code 652 during the project and shall use protective coatings personnel to carry out corrosion prevention and mitigation methods and use inspectors so that best practices and standards are adhered to.

1.04 35 ILL. ADM. CODE 1100

A. CONTRACTOR shall comply with 35 Ill. Adm. Code 1100 when disposing of clean construction or demolition debris (CCDD) or uncontaminated soil at a CCDD or uncontaminated soil fill operation.

1.05 ROADWAY LIMITS

A. CONTRACTOR shall comply with roadway weight restrictions including seasonal weight restrictions.

1.06 PERMITS

A. The following permit will be obtained by OWNER: Illinois Environmental Protection Agency Application for Construction.

B. The permit will be provided to the awarded CONTRACTOR. CONTRACTOR shall comply with all provisions of this permit and shall be responsible for notifications as required by this permit. CONTRACTOR shall obtain all other permits required for the Work. Where the requirements of any permit is more restrictive than the Drawings or the Specifications, the permit requirements shall govern.

C. Any permits required for dewatering operations shall be obtained and paid for by CONTRACTOR.

1.07 WAGE RATES

A. CONTRACTOR and any subcontractor shall pay all laborers, workers, and mechanics performing work under the Contract not less than the prevailing wage rates adopted by OWNER or determined by the court on review and filed with the Secretary of State in Springfield. A copy of the Schedule of Prevailing Wage Rates is attached hereto.

B. CONTRACTOR shall keep or cause to be kept a record of employees and wages paid as required by the Prevailing Wage Act (820 ILCS 130/1-12). CONTRACTOR shall also require each subcontractor employed on the project to keep these same records. In accordance with Illinois Public Act 94-0515, CONTRACTOR shall submit certified payroll records on a monthly basis to OWNER, along with a statement affirming that such records are true and accurate, that the wages paid to each worker are not less than the required prevailing rate and that CONTRACTOR is aware that filing records he or she knows to be false is a Class B misdemeanor.

C. The certified payroll records shall include for every worker employed on the project the name, address, telephone number, social security number, job classification, hourly wages paid in each pay period, number of hours worked each day, and starting and ending time of work each day.

D. If at the time this Contract is executed, or if during the term of this Contract, there is excessive unemployment in Illinois as defined in the Employment of Illinois Workers on Public Works Act, 30 ILCS 570, as two consecutive months of unemployment exceeding 5%, CONTRACTOR agrees to employ a work force that is comprised of at least 90% Illinois laborers. An “Illinois laborer” is defined as any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.

E. See Wage Rate Forms bound at the end of Division 01.

F. CONTRACTOR shall comply with the attached Federal Wage Rates.

1.08 BUILD AMERICA, BUY AMERICA REQUIREMENTS

A. CONTRACTOR shall comply with the Build America, Buy America (BABA) requirements of Title IX of the Infrastructure Investment and Jobs Act of 2021 (P.L 117-58). CONTRACTOR shall submit, with each shop drawing, step certification that regulated iron, steel, manufactured products, and construction materials meet BABA requirements. For iron and steel products, references to AIS requirements are acceptable and reciprocal with BABA for such items. Certification letters shall include the following at a minimum:
   1. Identification of the product.
   2. City and State where the product was manufactured.
   3. Reference to OWNER and/or the project.
   4. Signature of authorized manufacturer employee.
   5. Reference to current BABA requirements. Reference to Infrastructure Investment and Jobs Act or Bipartisan Infrastructure Law are also acceptable.

B. The Build America, Buy America Act does grant the possibility of waivers and exclusions if certain conditions are met. Products that qualify for the BABA national de minimus waiver,

dated October 2022, and located at the end of Division 01, cumulatively may comprise no more than five percent of the total project cost and is not additive with the existing AIS national de minimus waiver. Other conditions can be found in the referenced waiver found at the end of Division 01.

C. CONTRACTOR shall provide required BABA documentation prior to installation of regulated iron, steel, manufactured products, and construction materials.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 42 00

REFERENCE STANDARDS AND DEFINITIONS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Reference Standards:
      a. Throughout the Contract Documents, reference is made to codes and standards which establish qualities and types of workmanship and materials, and which establish methods for workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics.
      b. Where materials or workmanship are required by these Contract Documents to meet or exceed the specifically named code or standard, it is CONTRACTOR's responsibility to provide materials and workmanship which meet or exceed that specifically named code or standard.
      c. It is also CONTRACTOR's responsibility, when so required by the Contract Documents, to deliver to ENGINEER all required proof that the material or workmanship, or both, meet or exceed the requirements of the specifically named code or standard.
   2. Definitions:
      a. A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including the Drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon.
      b. Certain terms used in the Contract Documents are defined generally in this section to supplement definitions of the Contract and other general Contract Documents.
      c. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the Work.

B. Related Work Described Elsewhere: The specific naming of codes or standards occurs on the Drawings and in other sections of these Specifications.

1.02 QUALITY ASSURANCE

A. Familiarity with Pertinent Codes and Standards:
   1. It is CONTRACTOR's responsibility to verify the requirements of the specifically named codes and standards and to verify that the items procured for use in this Work meet or exceed the specified requirements.
   2. When required by individual sections of these Specifications, CONTRACTOR shall obtain a copy of each pertinent code or standard and maintain the copies at the job site during submittals, planning, and progress of the Work until Substantial Completion of the Work is attained.

B. Overlapping or Conflicting Requirements:
   1. Where compliance with two or more industry standards or sets of requirements are specified, and the overlapping of those standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement (which is generally recognized to be also most costly) is intended and will be enforced, unless

more detailed language written directly into Contract Documents clearly indicates that a less stringent requirement is acceptable.

2. Refer all uncertainties to ENGINEER for decision before proceeding.

1.03 REFERENCE STANDARDS

A. Applicable standards of the construction industry are made a part of the Contract Documents by reference as if copied directly into the Contract Documents, or as if published copies were bound herewith.

B. Standards referenced directly in the Contract Documents or by governing regulation, have precedence over nonreferenced standards which are recognized in industry for applicability to the Work.

C. Nonreference standards are hereby defined to have no particular applicability to the Work except as a general measurement of whether the Work complies with standards recognized in the construction industry.

D. Reference standards and codes listed in these Specifications may include, but are not necessarily limited to, standards or codes published by the following agencies and organizations:

1. AA — Aluminum Association
   1525 Wilson Boulevard, Arlington, VA 22209

2. AAMA — American Architectural Manufacturer's Association
   1827 Walden Office Square Suite 550, Schaumberg, IL 60173-4268

3. AASHTO — American Association of State Highway & Transportation Officials
   444 North Capitol Street NW Suite 249, Washington, DC 20001

4. ACI — American Concrete Institute
   38800 Country Club Drive, Farmington Hills, MI 48331-3439

5. AI — Asphalt Institute
   2696 Research Park Drive, Lexington, KY 40511-8480

6. AISC — American Institute of Steel Construction
   One East Wacker Drive Suite 700, Chicago, IL 60601-1802

7. AISI — American Iron and Steel Institute
   25 Massachusetts Avenue NW Suite 800, Washington, DC 20001

8. ANSI — American National Standards Institute
   25 West 43rd Street, New York, NY 10036

9. APA — American Plywood Association
   7011 South 19th, Tacoma, WA 98466-5333

10. API	American Petroleum Institute 1220 L Street NW, Washington, DC 20005-4070
11. ARI	Air-Conditioning & Refrigeration Institute 4100 North Fairfax Drive Suite 200, Arlington, VA 22203
12. ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers 1791 Tullie Circle NE, Atlanta, GA 30329
13. ASME	American Society of Mechanical Engineers Two Park Avenue, New York, NY 10016-5990
14. ASSE	American Society of Sanitary Engineering 901 Canterbury Suite A, Westlake, OH 44145
15. ASTM	ASTM International 100 Barr Harbor Drive, West Conshohoken, PA 19428-2959
16. AWI	Architectural Woodwork Institute 46179 Westlake Drive Suite 120, Potomac Falls, VA 20165-5874
17. AWPA	American Wood Protection Association P.O. Box 361784, Birmingham, AL 35236-1784
18. AWS	American Welding Society 8669 Doral Boulevard Suite 130, Doral, FL 33166
19. AWWA	American Water Works Association 6666 West Quincy Avenue, Denver, CO 80235
20. BHMA	Builder's Hardware Manufacturers Association 355 Lexington Avenue 15th floor, New York, NY 10017
21. BIA	Brick Industry Association 1850 Centennial Park Drive Suite 301, Reston, VA 20191
22. CRSI	Concrete Reinforcing Steel Institute 9333 North Plum Grove Road, Schaumburg, IL 60173
23. DOT	U.S. Department of Transportation 1200 New Jersey Avenue, SE, Washington, DC 20590
24. EJMA	Expansion Joint Manufacturers Association 25 North Broadway, Tarrytown, NY 10591
25. FM	FM Global FM Global Corporate Offices, 270 Central Avenue, Johnston, RI 02919

26. FTI	Facing Tile Institute Box 8880, Canton, OH 44711
27. GA	Gypsum Association 6525 Belcrest Road Suite 480, Hyattsville, MD 20782
28. GANA	Glass Association of North America 800 SW Jackson Street Suite 1500, Topeka, KS 66612-1200
29. ICC	International Code Council 500 New Jersey Avenue NW 6th Floor, Washington, DC 20001
30. IES	Illuminating Engineering Society 120 Wall Street, Floor 17, New York, NY 10005-4001
31. MIL	Military Specifications Naval Publications and Forms Center 5801 Tabor Avenue, Philadelphia, PA 19120
32. NAAMM	National Association of Architectural Metal Manufacturers 800 Roosevelt Road Building C Suite 312, Glen Ellyn, IL 60137
33. NCMA	National Concrete Masonry Association 13750 Sunrise Valley Drive, Herndon, VA 20171-4662
34. NECA	NECA National Electrical Contractors Association 3 Bethesda Metro Center Suite 1100, Bethesda, MD 20814
35. NEMA	National Electrical Manufacturers Association 1300 North 17th Street Suite 1752, Rosslyn, VA 22209
36. NFPA	National Fire Protection Association 1 Batterymarch Park, Quincy, MA 02169-7471
37. NIST	National Institute of Standards and Technology (U.S. Department of Commerce), 100 Bureau Drive, Stop 1070 Gaithersburg, MD 20899-1070
38. NRCA	National Roofing Contractors Association 10255 West Higgins Road Suite 600, Rosemont, IL 60018-5607
39. NSF	National Sanitation Foundation International P.O. Box 130140, 789 North Dixboro Road, Ann Arbor, MI 48113-0140
40. OSHA	Occupational Safety & Health Administration 200 Constitution Avenue NW, Washington, DC 20210
41. PCA	Portland Cement Association 5420 Old Orchard Road, Skokie, IL 60077

42. PCI — Prestressed Concrete Institute
200 West Adams Street Suite 2100, Chicago, IL 60606

43. SAE — Society of Automotive Engineers
SAE World Headquarters
400 Commonwealth Drive, Warrendale, PA 15096-0001

44. SDI — Steel Deck Institute
P.O. Box 25, Fox River Grove, IL 60021

45. SDI — Steel Door Institute
30200 Detroit Road, Westlake, OH 44145-1987

46. SIGMA — Sealed Insulating Glass Manufacturers Assoc.
401 North Michigan Avenue Suite 2400, Chicago, IL 60611

47. SJI — Steel Joist Institute
234 Cheves Street, Florence, SC 29501

48. SMACNA — Sheet Metal and Air Conditioning
Contractor's National Association
4201 Lafayette Center Drive, Chantilly, VA 20151-1219

49. SSPC — Society for Protective Coatings
40 24th Street 6th Floor, Pittsburgh, PA 15222-4656

50. TCA — Tile Council of America
100 Clemson Research Boulevard, Anderson, SC 29625

51. UL — Underwriters Laboratories
333 Pfingston Road; Northbrook, IL 60062

1.04 SUBMITTALS

A. For OWNER's records, CONTRACTOR shall submit copies of permits, licenses, certifications, inspection reports, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

1.05 DEFINITIONS

A. Indicated:
1. The term “indicated” is a cross-reference to details, notes, or schedules on the Drawings, to other paragraphs or schedules in the Specifications and to similar means of recording requirements in the Contract Documents.
2. Where terms such as “shown,” “noted,” “scheduled,” and “specified” are used in lieu of “indicated,” it is for the purpose of helping the reader locate cross-reference, and no limitation is intended except as specifically noted.

B. Approve (or Words of Similar Nature):
   1. Where used in conjunction with ENGINEER's response to submittals, requests, applications, inquiries, reports, and claims by CONTRACTOR, the meaning of the term “approve” will be held to the limitation of ENGINEER's responsibilities and duties as specified in Paragraph 7 of the Contract.
   2. In no case will “approval” by ENGINEER be interpreted as a release of CONTRACTOR from responsibility to fulfill requirements of the Contract Documents.

C. Minimum Requirements:
   1. Indicated requirements are for a specific minimum acceptable level of quality or quantity, as recognized in the industry.
   2. Actual work must comply with (or within specified tolerances) or exceed minimums.
   3. CONTRACTOR shall refer uncertainties to ENGINEER before proceeding.

D. Abbreviations: Abbreviations, where not defined in the Contract Documents, will be interpreted to mean the normal construction industry terminology.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1–GENERAL

1.01 SUMMARY

A. Work Includes:
   1. Quality Assurance–Control of Installation.
   2. Tolerances.
   3. Manufacturers' Field Services and Reports.

1.02 QUALITY ASSURANCE–CONTROL OF INSTALLATION

A. CONTRACTOR shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality.

B. CONTRACTOR shall comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, CONTRACTOR shall request clarification from ENGINEER before proceeding.

D. CONTRACTOR shall comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Work shall be performed by persons qualified to produce workmanship of specified quality.

F. CONTRACTOR shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

A. CONTRACTOR shall monitor tolerance control of installed products to produce acceptable work and shall not permit tolerances to accumulate.

B. CONTRACTOR shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, CONTRACTOR shall request clarification from ENGINEER before proceeding.

C. CONTRACTOR shall adjust products to appropriate dimensions; position before securing products in place.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

A. When specified in individual specification sections or when requested by ENGINEER, CONTRACTOR shall require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, and quality of workmanship.

B. CONTRACTOR shall submit qualifications of observer to ENGINEER 30 days in advance of required observations.

C. CONTRACTOR shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

D. CONTRACTOR shall submit report in duplicate within 30 days of observation to ENGINEER for information.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Temporary Utilities.
   2. Temporary Stairs and Access.
   3. Temporary Support Facilities.
   4. Removal of Temporary Facilities.

B. CONTRACTOR shall arrange for and provide temporary facilities as required for proper and expeditious prosecution of the Work.

C. CONTRACTOR shall pay all costs, except as otherwise specified, until final acceptance of the Work unless OWNER makes arrangements for use of completed portions of the Work after substantial completion in accordance with the provisions of the Contract.

D. CONTRACTOR shall make all temporary connections to utilities and services in locations acceptable to OWNER and local authorities having appropriate jurisdiction.
   1. Furnish all necessary labor and materials.
   2. Make all installations in a manner subject to the acceptance of such authorities and OWNER.
   3. Maintain such connections.
   4. Remove temporary installation and connection when no longer required.
   5. Restore services and sources of supply to proper operating conditions.

1.02 TEMPORARY UTILITIES

A. Temporary Toilets: CONTRACTOR shall provide and maintain sanitary temporary chemical toilets located where approved by OWNER and in sufficient number required for the work force employed by CONTRACTOR.

B. Weather Protection and Temporary Heat: CONTRACTOR shall provide weather protection to protect the Work from damage because of freezing, rain, snow, and other inclement weather.

C. Temporary Water: CONTRACTOR shall supply its own water during construction. CONTRACTOR shall also provide its own piping, valves, and appurtenances for its requirements. Connection to the existing water system shall be coordinated with OWNER and shall meet all code requirements including disinfection and backflow prevention.

D. CONTRACTOR’s and Subcontractor(s)’ personnel shall refrain from smoking during excavation, laying pipe, backfilling, and other work at the Site which may involve potential contact with explosive vapors or gasoline products.

1.03 TEMPORARY STAIRS AND ACCESS

A. CONTRACTOR shall provide and maintain all equipment such as temporary stairs, ladders, ramps, runways, chutes, and so on as required for proper execution of the Work. CONTRACTOR shall be responsible for providing its own scaffolds, hoists, etc.

B. All such apparatus, equipment, and construction shall meet all requirements of OSHA, the labor laws, and other applicable State and local laws. Provide stairs with handrails. As soon as possible and where applicable, permanent stairs shall be installed.

C. Provide barricades at hazardous locations, complete with signs, temporary general lighting, warning lights, and similar devices as required.

1.04 TEMPORARY SUPPORT FACILITIES

A. CONTRACTOR shall provide whatever facilities and services which may be needed to properly support primary construction process and meet compliance requirements and governing regulations.

B. CONTRACTOR shall not use permanent facilities except as otherwise indicated, unless authorized by OWNER.

1.05 REMOVAL OF TEMPORARY FACILITIES

A. Remove temporary materials, equipment, services, and construction as soon as practicable but no later than just prior to final completion inspection.

B. Clean and repair damage caused by installation or use of temporary facilities and restore existing facilities used during construction to specified, or to original, condition.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 57 00

TEMPORARY CONTROLS

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Dust Control.
   2. Water, Erosion, and Sediment Control.
   3. Noise Control.
   4. Traffic Control.
   5. Site Security.
   6. Daily Cleanup.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 DUST CONTROL

A. CONTRACTOR shall execute the Work by methods to minimize raising dust from construction operations.

B. CONTRACTOR shall provide positive means to prevent airborne dust from dispersing into atmosphere.

3.02 WATER, EROSION, AND SEDIMENT CONTROL

A. CONTRACTOR shall grade site to drain and shall maintain excavations free of water. Provide, operate, and maintain pumping equipment.

B. CONTRACTOR shall protect Site from puddling or running water.

C. CONTRACTOR shall provide erosion control measures as necessary to control discharge of sediment laden water to surface waters and wetlands.

D. Except as provided for in the document, overland discharge of water from dewatering operations shall not be allowed. Depending on water quality, such water shall either be piped directly to the surface water or shall be directed to sedimentation basins or other such structures or features prior to discharge to surface waters so as not to cause damage to existing ground and improvements, erosion, or deposition in the discharge area.

E. CONTRACTOR shall use jute or synthetic netting, silt fences, straw bales, dikes, channels, and other applicable measures to prevent erosion of soils disturbed by its construction operation.

F. Restoration of the Site shall proceed concurrently with the construction operation. See Drawings and Specifications for erosion control measures in addition to that which may be required above.

G. Erosion control measures shall comply with the following document: "Standard Specifications for Soil Erosion and Sediment Control," of the Illinois Environmental Protection Agency, IEPA/WPC 87-012.

3.03 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations.

3.04 TRAFFIC CONTROL

A. CONTRACTOR shall be responsible for providing all signs, barricades, flagmen, and other traffic control devices in the construction zone.

B. Conduct operations with minimum interference to roadways.

C. Maintain two-way traffic on streets at all times.

D. All traffic control measures shall meet the requirements of Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, and the Standard Specifications for Traffic control Items, Latest Edition.

E. Do not close or obstruct roadways without approval of OWNER.

3.05 SITE SECURITY

A. CONTRACTOR shall have the sole responsibility of safeguarding the Site perimeter to prevent unauthorized entry to the Site throughout the duration of the Project. CONTRACTOR shall at all times provide such permanent and temporary fencing or barricades or other measures as may be necessary to restrict unauthorized entry to its construction area including construction in public rights-of-way or easements. Site security measures shall include safeguards against attractive nuisance hazards as a result of construction activity.

B. CONTRACTOR shall at all times be responsible for the security of the Work including materials and equipment. OWNER will not take any responsibility for missing or damaged equipment, tools, or personal belongings. CONTRACTOR shall have the sole responsibility of safeguarding the Work and the Site throughout the duration of the Project.

3.06 DAILY CLEANUP

A. CONTRACTOR shall clean up the Site and remove all rubbish on a daily basis.

B. CONTRACTOR shall clean up public streets and highways and remove any dirt, mud, or other materials due to project traffic on daily basis and shall comply with all local and state ordinances and permit requirements.

END OF SECTION

SECTION 01 60 00

MATERIALS AND EQUIPMENT

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: CONTRACTOR shall be responsible for the delivery, handling, storage and protection of all material and equipment required to complete the Work as specified herein.

B. Related Sections and Divisions: Specific requirements for the handling and storage of material and equipment are described in other sections of these Specifications.

1.02 PRODUCTS

A. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.

B. CONTRACTOR shall not use materials and equipment removed from existing construction, except as specifically required, or allowed, by the Contract Documents.

C. When any construction deviations from the Drawings and/or Specifications necessary to accommodate equipment supplied by CONTRACTOR, result in additional costs to CONTRACTOR or other contractors, such additional costs shall be borne by CONTRACTOR. CONTRACTOR shall also pay any additional costs necessary for revisions of Drawings and/or Specifications by ENGINEER.

D. Each major component of equipment shall bear a nameplate giving the name and address of the manufacturer and the catalogue number or designation.

1.03 TRANSPORTATION AND HANDLING

A. Materials, products and equipment shall be properly containerized, packaged, boxed, and protected to prevent damage during transportation and handling.

B. CONTRACTOR shall not overload any portion of the structure in the transporting or storage of materials.

C. CONTRACTOR shall not damage other construction by careless transportation, handling, spillage, staining or impact of materials.

D. CONTRACTOR shall provide equipment and personnel to handle products, including those provided by OWNER, by methods to prevent soiling and damage.

E. CONTRACTOR shall provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.

F. CONTRACTOR shall handle product by methods to avoid bending or overstressing. Lift large and heavy components only at designated lift points.

1.04 DELIVERY AND RECEIVING

A. CONTRACTOR shall arrange deliveries of products in accordance with the Progress Schedule, allowing time for observation prior to installation.

B. CONTRACTOR shall coordinate deliveries to avoid conflict with the Work and conditions at the Site; work activities of other contractors or OWNER; limitations on storage space; availability of personnel and handling equipment and OWNER's use of premises.

C. CONTRACTOR shall deliver products in undamaged, dry condition, in original unopened containers or packaging with identifying labels intact and legible.

D. CONTRACTOR shall clearly mark partial deliveries of component parts of equipment to identify equipment and contents to permit easy accumulation of parts and to facilitate assembly.

E. Immediately on delivery, CONTRACTOR shall inspect shipment to review that:
   1. Product complies with requirements of Contract Documents and reviewed submittals.
   2. Quantities are correct.
   3. Accessories and installation hardware are correct.
   4. Containers and packages are intact and labels legible.
   5. Products are protected and undamaged.

1.05 STORAGE AND PROTECTION

A. General:
   1. CONTRACTOR shall store products, immediately on delivery, in accordance with manufacturer's instructions, with all seals and labels intact and legible.
   2. Any additional off-site space required shall be arranged by CONTRACTOR.
   3. CONTRACTOR shall allocate the available storage areas and coordinate their use by the trades on the job.
   4. CONTRACTOR shall arrange storage in a manner to provide access for maintenance of stored items and for observation.

B. In enclosed storage, CONTRACTOR shall:
   1. Provide suitable temporary weather tight storage facilities as may be required for materials that will be damaged by storage in the open.
   2. Maintain temperature and humidity within ranges stated in manufacturer's instructions.
   3. Provide ventilation for sensitive products as required by manufacturer's instructions.
   4. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
   5. Store solid materials such as insulation, tile, mechanical and electrical equipment, fittings, and fixtures under shelter, in original packages, away from dampness and other hazards.
   6. Store liquid materials away from fire or intense heat and protect from freezing.

C. At exterior storage, CONTRACTOR shall:
   1. Store unit materials such as concrete block, brick, steel, pipe, conduit, door frames, and lumber off ground, out of reach of dirt, water, mud and splashing.
   2. Store tools or equipment that carry dirt outside.
   3. Store large equipment so as not to damage the Work or present a fire hazard.
   4. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet material and provide ventilation to avoid condensation.

5. Completely cover and protect any equipment or material which is prime coated or finish painted with secured plastic or cloth tarps. Store out of reach of dirt, water, mud and splashing.
6. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.
7. Provide surface drainage to prevent erosion and ponding of water.
8. Prevent mixing of refuse or chemically injurious materials or liquids.
9. Cover aggregates such as sand and gravel in cold wet weather.
10. Remove all traces of piled bulk materials at completion of work and return site to original or indicated condition.

1.06 MAINTENANCE OF STORAGE

A. CONTRACTOR shall periodically inspect stored products on a scheduled basis.

B. CONTRACTOR shall verify that storage facilities comply with manufacturer's product storage requirements, and verify that manufacturer required environmental conditions are maintained continually.

C. CONTRACTOR shall verify that surfaces of products exposed to the elements are not adversely affected and that any weathering of finishes is acceptable under requirements of Contract Documents.

D. CONTRACTOR shall perform scheduled maintenance of equipment in storage as recommended by the manufacturer. A record of the maintenance shall be kept and turned over to ENGINEER when the equipment is installed.

1.07 INSTALLATION REQUIREMENTS

A. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the respective manufacturers, unless otherwise specified.

B. After installation, CONTRACTOR shall protect all materials and equipment against weather, dust, moisture, and mechanical damage.

C. CONTRACTOR shall be responsible for all damages that occur in connection with the care and protection of all materials and equipment until completion and final acceptance of the Work by OWNER. Damaged material and equipment shall be immediately removed from the Site.

1.08 EQUIPMENT WARRANTIES

A. Warranties shall be nonprorated, include all parts and labor, and be in written form. Warranties shall specifically exclude buyer's indemnification language. Warranty language shall not eliminate manufacturer’s responsibility for sizing of the equipment. During warranty period, manufacturer shall be responsible for any travel expenses, outside contractor fees, and rental equipment fees associated with providing warranty service. Manufacturer shall pay expenses incurred for repairs and parts replacement not made by manufacturer if manufacturer’s response is not within 72 hours of notification by OWNER. Warranty language shall be provided with the shop drawings.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 77 00

CONTRACT CLOSEOUT

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Closeout Procedures.
   2. Final Cleaning.
   3. Adjusting.
   4. Project Record Documents.
   5. Warranties.

1.02 CLOSEOUT PROCEDURES

A. CONTRACTOR shall provide submittals to ENGINEER that are required by governing or other authorities.

B. CONTRACTOR shall comply with the Contract Documents and complete the following before requesting ENGINEER's observation of the Work or designated portion thereof for substantial completion.
   1. Submit executed warranties, workmanship bonds, maintenance agreements, inspection certificates, and similar required documentation for specific units of Work, enabling OWNER's unrestricted occupancy and use.
   2. Submit record documentation, maintenance manuals, tools, spare parts, keys, and similar operational items.
   3. Submit consent of surety (if surety required in Contract).
   4. Complete final cleaning, touch-up work of marred surfaces, and remove temporary facilities and tools.

1.03 FINAL CLEANING

A. It is CONTRACTOR's responsibility to completely clean up the construction site at the completion of the Work.

B. In addition to the cleaning specified above and the more specific cleaning that may be required in various technical sections of the Specifications, CONTRACTOR shall prepare the Project for occupancy by a thorough cleaning throughout, which shall include the following:
   1. Remove temporary labels, stains and foreign substances.
   2. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
   3. Replace filters of operating equipment.
   4. Clean debris from drainage systems.
   5. Clean site; sweep paved areas, rake clean landscaped surfaces.
   6. Remove waste and surplus materials, rubbish, and construction facilities from the Site.

1.04 ADJUSTING

A. CONTRACTOR shall adjust operating products and equipment to provide smooth and unhindered operation.

1.05 PROJECT RECORD DOCUMENTS

A. CONTRACTOR shall maintain on Site one set of the following record documents to record actual revisions to the Work:
   1. Drawings.
   2. Specifications.
   3. Addenda.
   4. Change orders and other modifications to the Contract.
   5. Reviewed shop drawings, product data, and samples.
   6. Manufacturer's instruction for assembly, installation, and adjusting.

B. CONTRACTOR shall make entries that are complete and accurate, enabling future reference by OWNER.

C. CONTRACTOR shall store record documents separate from documents used for construction.

D. CONTRACTOR shall record information concurrent with construction progress.

E. Specifications: CONTRACTOR shall legibly mark and record at each Product section description of actual products installed, including the following:
   1. Manufacturer's name and product model and number.
   2. Product substitutions or alternates utilized.
   3. Changes made by addenda and modifications.

F. Record Drawings: CONTRACTOR shall legibly mark each item to record actual construction including:
   1. Measured depths of foundations in relation to finish floor datum.
   2. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
   3. Measured locations of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of the Work.
   4. Field changes of dimension and detail.
   5. Details not on original Contract Drawings.

1.06 WARRANTIES

A. CONTRACTOR shall provide warranties beyond project one-year warranty as required by technical sections.

B. Submit warranty information as follows:
   1. Provide original copies bearing authorized signatures.
   2. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers, and provide Table of Contents and assemble in three-ring binder with durable cover.
   3. Submit with request for certificate of Substantial Completion.

4. For items of work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance listing date of acceptance as start of warranty period.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

ILLINOIS
WAGE RATES

Kendall County Prevailing Wage Rates posted on 9/16/2024

						Overtime										
Trade Title	**Rg**	**Type**	**C**	**Base**	**Foreman**	**M-F**	**Sa**	**Su**	**Hol**	**H/W**	**Pension**	**Vac**	**Trng**	**Other Ins**	**Add OT 1.5x owed**	**Add OT 2.0x owed**
ASBESTOS ABT-GEN	All	ALL		50.15	51.15	1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00
ASBESTOS ABT-MEC	All	BLD		41.27	44.57	1.5	1.5	2.0	2.0	15.84	16.02	0.00	0.90		3.11	6.21
BOILERMAKER	All	BLD		55.76	60.77	2.0	2.0	2.0	2.0	6.97	26.44	0.00	3.34	1.95	0.00	38.26
BRICK MASON	All	BLD		52.06	57.27	1.5	1.5	2.0	2.0	12.70	24.54	0.00	1.24	0.00	3.99	7.98
CARPENTER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.87	1.55	0.93	0.00	0.00	0.00
CEMENT MASON	All	ALL		51.00	53.00	2.0	1.5	2.0	2.0	12.19	29.96	0.00	0.80	0.00	0.00	0.00
CERAMIC TILE FINISHER	All	BLD		47.09	47.09	1.5	1.5	2.0	2.0	13.00	16.82	0.00	1.09	0.00	5.17	10.34
CERAMIC TILE LAYER	All	BLD		54.84	59.84	1.5	1.5	2.0	2.0	13.00	20.68	0.00	1.17	0.00	7.15	14.30
COMMUNICATION TECHNICIAN	All	BLD		44.15	46.95	1.5	1.5	2.0	2.0	17.30	16.36	0.00	1.54	0.00	0.00	0.00
ELECTRIC PWR EQMT OP	All	ALL		50.82	69.34	1.5	1.5	2.0	2.0	7.25	14.22	0.00	1.52	1.52	8.63	17.26
ELECTRIC PWR GRNDMAN	All	ALL		39.04	69.34	1.5	1.5	2.0	2.0	7.25	10.93	0.00	1.17	1.17	6.63	13.27
ELECTRIC PWR LINEMAN	All	ALL		61.09	69.34	1.5	1.5	2.0	2.0	7.25	17.10	0.00	1.83	1.83	10.38	20.76
ELECTRIC PWR TRK DRV	All	ALL		40.46	69.34	1.5	1.5	2.0	2.0	7.25	11.33	0.00	1.21	1.21	6.87	13.75
ELECTRICIAN	All	BLD		57.32	63.05	1.5	1.5	2.0	2.0	17.05	22.05	0.00	2.00		0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		67.84	76.32	2.0	2.0	2.0	2.0	16.18	20.96	5.42	0.75		0.00	0.00
GLAZIER	All	BLD		51.55	53.05	1.5	2.0	2.0	2.0	15.64	26.18	0.00	2.27	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		55.02	58.32	1.5	1.5	2.0	2.0	15.84	19.01	0.00	0.90		4.60	9.20
IRON WORKER	N	ALL		52.00	57.20	2.0	2.0	2.0	2.0	14.06	30.33	0.00	1.00	0.00	0.00	0.00
IRON WORKER	S	ALL		50.50	55.55	2.0	2.0	2.0	2.0	14.06	30.21	0.00	1.00	0.00	0.00	0.00
LABORER	All	ALL		50.15	50.90	1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00
LATHER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.87	1.55	0.93	0.00	0.00	0.00
MACHINIST	All	BLD		58.39	62.39	1.5	1.5	2.0	2.0	9.93	8.95	1.85	1.47		0.00	0.00
MARBLE FINISHER	All	ALL		39.50	53.55	1.5	1.5	2.0	2.0	12.70	22.32	0.00	0.73	0.00	2.88	5.76
MARBLE SETTER	All	BLD		51.00	56.10	1.5	1.5	2.0	2.0	12.70	24.01	0.00	0.92	0.00	3.73	7.45
MATERIAL TESTER I	All	ALL		40.15		1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00
MATERIALS TESTER II	All	ALL		45.15		1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00

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MILLWRIGHT	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.87	1.55	0.93	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	1	60.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	2	59.50	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	56.95	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	4	55.20	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	5	64.55	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	6	61.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	7	63.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT		50.50	50.50	1.5	1.5	2.0	2.0	23.95	21.40	2.00	2.85	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	1	59.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	2	58.45	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	3	56.40	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	4	55.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	5	53.80	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	6	62.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	7	60.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
PAINTER	All	ALL		53.05	55.05	1.5	1.5	1.5	2.0	16.08	9.90	0.00	1.65	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		45.49	51.09	1.5	1.5	2.0	2.0	8.20	16.81	0.00	0.00	0.00	0.00	0.00
PILEDRIVER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.87	1.55	0.93	0.00	0.00	0.00
PIPEFITTER	All	BLD		57.00	60.00	1.5	1.5	2.0	2.0	13.65	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		50.00	53.00	1.5	1.5	2.0	2.0	17.81	21.22	0.00	1.15		0.00	0.00
PLUMBER	All	BLD		58.55	62.05	1.5	1.5	2.0	2.0	17.75	17.74	0.00	1.83		0.00	0.00
ROOFER	All	BLD		50.25	55.25	1.5	1.5	2.0	2.0	11.83	16.44	0.00	1.11	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		56.35	60.86	1.5	1.5	2.0	2.0	15.01	19.43	0.00	1.59	2.62	0.00	0.00
SPRINKLER FITTER	All	BLD		60.10	62.85	1.5	1.5	2.0	2.0	14.95	19.30	0.00	1.10	0.00	0.00	0.00
STONE MASON	All	BLD		52.06	57.27	1.5	1.5	2.0	2.0	12.70	24.54	0.00	1.24	0.00	3.99	7.98
SURVEY WORKER	All	BLD		50.15	50.90	1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00
SURVEY WORKER	All	HWY		50.15	50.90	1.5	1.5	2.0	2.0	15.53	19.10	0.00	0.91		0.00	0.00
TERRAZZO FINISHER	All	BLD		48.94	48.94	1.5	1.5	2.0	2.0	13.00	18.42	0.00	1.11	0.00	4.22	8.44
TERRAZZO MECHANIC	All	BLD		52.85	56.35	1.5	1.5	2.0	2.0	13.00	19.81	0.00	1.15	0.00	4.47	8.94

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TRUCK DRIVER	All	ALL	1	45.10		1.5	1.5	2.0	2.0	11.65	13.76	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	2	45.25		1.5	1.5	2.0	2.0	11.65	13.76	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	3	45.45		1.5	1.5	2.0	2.0	11.65	13.76	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	4	45.65		1.5	1.5	2.0	2.0	11.65	13.76	0.00	0.25	0.00	0.00	0.00
TUCKPOINTER	All	BLD		51.53	52.53	1.5	1.5	2.0	2.0	10.05	22.66	0.00	1.15	0.00	0.00	0.00

Legend
Rg Region
Type Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers
C Class
Base Base Wage Rate
OT M-F Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.
OT Sa Overtime pay required for every hour worked on Saturdays
OT Su Overtime pay required for every hour worked on Sundays
OT Hol Overtime pay required for every hour worked on Holidays
H/W Health/Welfare benefit
Vac Vacation
Trng Training
Other Ins Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations KENDALL COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

Iron Workers North - Starting from the Will County and Kendall County border at Rt. 126 and County Line Road. Follow Rt. 126 West to Grove Road. Grove Road South to Caton Farm Road. Caton Farm Road West to Lisbon Road. Lisbon Road South to Route 52. Rt. 52 West to County Line Road at the LaSalle / Kendall County Line.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain. CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welder.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks,

All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEERS - FLOATING

Diver. Diver Wet Tender, Diver Tender, ROV Pilot, ROV Tender

SURVEY WORKER

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking.

SURVEY FOREMAN

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking; oversees survey crew operations; and/or coordinates work of survey crews.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yeards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If

a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

DAVIS-BACON
WAGE RATES

"General Decision Number: IL20240011 10/04/2024

Superseded General Decision Number: IL20230011

State: Illinois

Construction Types: Heavy and Highway

Counties: Boone, De Kalb, Du Page, Kane, Kendall, Lake, McHenry and Will Counties in Illinois.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (does not include landscape projects).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

|If the contract is entered |. Executive Order 14026	|into on or after January 30,	generally applies to the	|2022, or the contract is	contract.	|renewed or extended (e.g., an |. The contractor must pay | |option is exercised) on or	all covered workers at	|after January 30, 2022:	least $17.20 per hour (or | | | the applicable wage rate | | | listed on this wage | | | determination, if it is | | | higher) for all hours			spent performing on the			contract in 2024.	
|If the contract was awarded on|. Executive Order 13658	|or between January 1, 2015 and| generally applies to the		January 29, 2022, and the	contract.	|contract is not renewed or |. The contractor must pay all| |extended on or after January	covered workers at least	|30, 2022:	$12.90 per hour (or the | | | applicable wage rate listed| | | on this wage determination,| | | if it is higher) for all			hours spent performing on			that contract in 2024.	

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date
 0 01/05/2024 1 04/05/2024
 2 05/17/2024
 3 05/31/2024

4 06/07/2024
5 06/14/2024
6 06/28/2024
7 07/05/2024
8 07/19/2024
9 07/26/2024
10 08/16/2024
11 08/30/2024
12 09/13/2024
13 09/20/2024
14 09/27/2024
15 10/04/2024

CARP0555-003 06/01/2022

DUPAGE ANE LAKE COUNTIES

Rates Fringes

CARPENTER
Building.....$ 52.01 38.85 Heavy & Highway.....$ 52.01 38.85 ----------
CARP0555-008 06/01/2020

WILL COUNTY

Rates Fringes

Carpenter and Piledriver.....$ 49.76 38.26
---------- CARP0555-011 06/01/2022

KANE, McHENRY (North of Hwy 52), AND KENDALL COUNTIES

Rates Fringes

Carpenter and Piledriver.....$ 52.01 38.86
---------- CARP0790-003 05/01/2024

DE KALB COUNTY

Rates Fringes

CARPENTER.....$ 47.60 37.12
---------- CARP0790-004 05/01/2024

CARROLL, JO DAVIESS, LEE, OGLE (Oregon and South thereof), STEPHENSON, and WHITESIDE COUNTIES

Rates Fringes

CARPENTER.....$ 47.60 37.12
---------- CARP0792-003 05/01/2024

BOONE COUNTY

Rates Fringes

CARPENTER.....$ 50.00 34.72
---------- ELEC0009-002 05/26/2024

WILL COUNTY

Rates Fringes

Line Construction
Groundman.....$ 48.44 60.05% Lineman and Equipment
Operator.....$ 62.10 60.05%
---------- ELEC0117-001 06/03/2024

KANE (Northern Half) and McHENRY (All) COUNTIES

Rates Fringes

ELECTRICIAN.....$ 55.99 41.00
---------- ELEC0150-001 06/03/2024

LAKE COUNTY

Rates Fringes

ELECTRICIAN.....$ 48.28 72.47%+15.47
---------- ELEC0176-011 06/01/2023

WILL COUNTY

Rates Fringes

ELECTRICIAN.....$ 52.00 45.01
---------- ELEC0196-001 03/06/2023

BOONE, DEKALB, DUPAGE, KANE, KENDALL, LAKE, and MCHENRY COUNTIES

Rates Fringes

Line Construction
Equipment Operator.....$ 49.22 34%+7.00+A Groundman Truck Driver.....$ 39.19 34%+7.00+A Groundman.....$ 37.81 34%+7.00+A Lineman, Substation

Technician, Cable Splicing
Technician, Digger
Operator, Crane Operator
20 tons and above, and
Signal Technician.....$ 59.17 34%+7.00+A

FOOTNOTE: A. PAID HOLIDAYS: Memorial Day, Independence Day, Labor Day, and Thanksgiving Day

---------- ELEC0364-003 06/03/2024

BOONE (All) & DEKALB (Remainder) COUNTIES

Rates Fringes

ELECTRICIAN.....$ 58.00 42.48
---------- ELEC0461-006 06/03/2024

DEKALB (Sandwich TWP), KANE (Southern Half) & KENDALL (All) COUNTIES

Rates Fringes

ELECTRICIAN.....$ 57.32 41.10
---------- ELEC0701-001 06/03/2019

DUPAGE COUNTY

Rates Fringes

ELECTRICIAN.....$ 41.00 105.86%
---------- ENGI0150-015 06/01/2024

BOONE and DE KALB COUNTIES

Rates Fringes

OPERATOR: Power Equipment
Group 1.....$ 52.40 49.50 Group 2.....$ 51.85 49.50 Group 3.....$ 50.55 49.50 Group 4.....$ 49.10 49.50 Group 5.....$ 47.65 49.50
POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt Plant; Asphalt Heater and Planer combination; Asphalt Spreader; Asphalt Silo Tender; Autograder, GOMACO or similar; Belt Loader; Caisson Rigs; Car Dumper, Central Redi-Mix Plant; Combination Backhoe Front End Loader Machine (1 cu yd or over Backhoe bucket with attachments); Backhoe with Shear attachment; Concrete Breaker (truck mounted); Concrete Conveyor; Concrete Paver over 27E cu ft; Concrete Placer; Concrete Tube

Float; Cranes, all attachments; Cranes, Hammerhead, Linden, Peco and machines of a like nature; Creter Crane; Crusher, stone; Derricks; Derrick Boats; Derricks, traveling; Dredges; Field Mechanic Welder; Formless Curb and Gutter Machine; Gradall and machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver mounted; Hoists, one, two, and three Drum; Hydraulic Backhoes; Locomotive, all Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill-Crawler or Skid Rig; Rock Drill truck mounted; Roto Mill Grinder, 36"" and over; Roto Mill Grinder, less than 36""; Slip-Form Paver; Soil Test Drill Rig, truck mounted; Straddle Buggies; GCI Crane and similar; Hydraulic Telescoping Form (tunnel); Tie Back MAchine; Tractor Drawn Belt Loader: Tractor Drawn Belt Loader with attached Pusher; Tractor with boom; Tractaire with attachment; Traffic Barrier Conveyor Machine; Raised or Blind Hoe Drill (Tunnel & Shaft); Trenching Machine; Truck Mounted Concrete Pump with boom; Truck mounted Concrete Conveyor; Underground Boring and/or Mining Machines under 5 ft; Wheel Excavator & Widener (Apsco)

GROUP 2: Batch Plant; Bituminous Mixer; Bobcats over .75 cu yd; Boiler and Throttle Valve; Bulldozer; Car Loader Trailing Conveyors; Combination Backkhoe Front End Loader Machine, less than 1 cu yd Backhoe Bucket with attachments; Compressor and Throttle Valve; Compressor, common receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S series to and including 27 cu ft; Concrete Spreader; Concrete Curing Machine, Burlap Machine; Belting Machine and Sealing Machine; Conveyor Muck Cars (Haglund or similar type); Finishing Machine-Concrete; Greaser Engineer; Highlift Shovels or Front End Loader; Hoist-Sewer Dragging Machine; Hydraulic Boom Trucks, all attachments; Locomotives, Dinky; Pump Cretes, Squeeze Cretes-Screw Type pumps, Gypsum Bulker and Pump; Roller Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc self-Propelled; Scoops-Tractor Drawn; Self-propelled Compactor; Spreader-Chip- Stone etc; Scraper; Scraper-Prime Mover in Tandem regardless of size (add $1.00 to to Group 2 hourly rate for each hour and for each machine attached thereto); Tank Car Heater; Tractors, Push, pulling Sheeps Foot, Disc, or Compactor, etc; Tug Boats

GROUP 3: Boilers; Brooms, all power propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer, two bag and over; Conveyor, Portable; Farm type Tractors used for mowing, seeding, etc; Fireman on Boilers; Forklift Trucks; Grouting Machines; Hoists, Automatic; Hoists, all Elevators; Hoists, Tugger single Drum; Jeep Diggers; Pipe Jacking Machines; Post- hole Digger; Power Saw, Concrete, Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with A-Frame; Work Boats; Tamper-Form motor driven

GROUP 4: Air compressor - Small 185 and under (1 to 5 not to exceed a total of 300 ft); Air Compressor - Large over 185; Asphalt Spreader Backend Man; Combination - Small Equipment Operator; Generators - Small 50 kw and under;

Generators - Large , over 50 kw; Heaters, Mechanical; Hydraulic power unit (Pile Driving, Extracting or Drilling); Light Plants All (1 to 5); Pumps, over 3"" (1 to 3, not to exceed a total of 300 ft); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 small electric drill winches; Bobcats up to and including .75 cu yd

GROUP 5: Oilers

PREMIUM PAY:

Long Boom :
Cranes & Derricks 90' to 150' including jib receive an extra $.50 per hour. Cranes & Derricks over 150' including jib receive an extra $.50 per hour plus an additional $.10 for each additional 10' of boom or jib.

Capacity Pay: Cranes & Derricks with maximum capacity exceeding 50 ton with less than 90' of boom or jib shall
be compensated $.01 per hour for each ton of the rated capacity in excess of 50 ton.

Long Boom pay and Capacity pay cannot be combined.

Crane mounted earth auger, raised and blind hole drills, and truck mounted drill rigs receive an extra $.50 per hour.

Creter Cranes:
When the Creter Crane is equipped with a conveyor system capable of extending 70' or more, the engineer shall receive an extra $.50 per hour.

Truck Mounted Concrete Pumps:
When the Truck Mounted Concrete Pump is equipped with a boom, which is capable of extending 90' or more, the engineer shall receive $.50 per hour extra.

Truck Mounted Concrete Conveyor:
Truck Mounted Concrete Conveyors equipped with conveyors that are capable of extending 90' or more, the engineer shall receive an extra $.50 per hour.

Underground Work:
Employees working in tunnels, shafts, etc. shall be paid an additional $.40 per hour. Employees working under air pressure 1/2 pound to 7 pounds shall receive an additional $.50 per hour. Employees working under air pressure of 7 pounds or over shall receive $.65 per hour more.

Mining Machines- Boring Machines:
The crew operating and maintaining the Mining Machines shall be compensated an additional $.50 per hour.

---------- * ENGI0150-024 05/01/2023

DUPAGE, KANE, KENDALL, LAKE, McHENRY, and WILL COUNTIES

Rates Fringes

OPERATOR: Power Equipment
GROUP 1.....$ 54.80 47.70 GROUP 2.....$ 54.25 47.70 GROUP 3.....$ 52.20 47.70 GROUP 4.....$ 50.80 47.70 GROUP 5.....$ 49.60 47.70

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt Plant*; Asphalt Heater and Planer combination; Asphalt Heater Scarfire*, Asphalt Spreader; Autograder/ GOMACO or similar; ABG Paver*, Backhoes with Caisson attachment*, Ballast Regulator, Belt Loader*; Caisson Rigs*Car Dumper, Central Redi-Mix Plant*, Combination Backhoe; Front End Loader Machine (1 cu yd or over Backhoe bucket or with attachments); Concrete Breaker (truck mounted); Concrete Conveyor; Concrete Paver over 27E cu ft*; Concrete Placer*; Concrete Tube Float; Cranes, all attachments*; Cranes, Hammerhead, Linden, Peco and machines of a like nature*; Creter Crane; Crusher, stone; All Derricks; Derrick Boats; Derricks, traveling*; Dowell Machine with Air Compressor ($1.00 above Class 1);
Dredges*; Field Mechanic Welder; Formless Curb and Gutter Machine*; Gradall and machines of a like nature*; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver mounted*; Hoists, one, two, and three Drum; Hydraulic Backhoes*; Backhoes with Shear attachments*; Mucking Machine; Pile Drivers and Skid Rig*; Pre-Stress Machine; Pump Cretes Dual Ram (requires frequent lubrication and water)*; Rock Drill- Crawler or Skid Rig*; Rock Drill truck mounted*; Rock/ Track Tamper; Roto Mill Grinder, (36"" and over)*; Slip-Form Paver*; Soil Test Drill Rig, truck mounted*; Straddle Buggies; Hydraulic Telescoping Form (tunnel); Tractor Drawn Belt Loader*; Tractor Drawn Belt Loader with attached Pusher (two engineers); Tractor with boom; Tractaire with attachment; Traffic Barrier Transfer Machine*; Trenching Machine; Truck Mounted Concrete Pump with boom*; Underground Boring and/or Mining Machines 5 ft in diameter and over tunnel, etc.*; Wheel Excavator* & Widener (Apsco); Raised or Blind Hoe Drill, Tunnel & Shaft*

GROUP 2: Batch Plant*; Bituminous Mixer; Boiler and Throttle Valve; Bulldozer; Car Loader Trailing Conveyors;
Combination Backkhoe Front End Loader Machine, (less than 1 cu yd Backhoe Bucket with attachments); Compressor and Throttle Valve; Compressor, common receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine;
Concrete Mixer or Paver 7S series to and including 27 cu
ft; Concrete Spreader; Concrete Curing Machine; Burlap Machine; Belting Machine and Sealing Machine; Concrete
Wheel Saw; Conveyor Muck Cars (Haglund or similar type); Drills (all); Finishing Machine-Concrete; Greaser Engineer; Highlift Shovels or Front End Loader; Hoist- Sewer Dragging Machine; Hydraulic Boom Trucks, all attachments; Hydro-Blaster (requires two operators); Laser Screed*; Locomotives, Dinky; Off-Road Hauling Units (including articulating); Pump Cretes; Squeeze Cretes-Screw Type
pumps, Gypsum Bulker and Pump; Roller Asphalt; Rotary Snow Plows; Rototiller, Seaman, self-Propelled; Scoops-Tractor Drawn; Self- propelled Compactor; Spreader-Chip-Stone; Scraper; Scraper-Prime Mover in Tandem regardless of size (add $1.00 to Group 2 hourly rate for each hour and for
each machine attached thereto add $1.00 to Group 2 hourly rate for each hour); Tank Car Heater; Tractors, Push, pulling Sheeps Foot, Disc, or

Compactor, etc; Tug Boats

GROUP 3: Boilers; Brooms, all power propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer, two bag and over; Conveyor, Portable; Farm type Tractors used for mowing, seeding, etc; Fireman on Boilers; Forklift Trucks; Grouting Machines; Hoists, Automatic; Hoists, all Elevators; Hoists, Tugger single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-hole Digger; Power Saw, Concrete, Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with A-Frame; Work Boats; Tamper-Form motor driven

GROUP 4: Air compressor - Small 250 and under (1 to 5 not to exceed a total of 300 ft); Air Compressor - Large over 250; Combination - Small Equipment Operator; Directional Boring Machine; Generators - Small 50 kw and under; Generators - Large , over 50 kw; Heaters, Mechanical; Hydraulic power unit (Pile Driving, Extracting or Drilling); Light Plants (1 to 5); Pumps, over 3"" (1 to 3, not to exceed a total of 300 ft); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 small electric drill winches;

GROUP 5: Bobcats (All); Brick Forklifts; Oilers; Directional Boring

*Requires Oiler

---------- IRON0001-014 06/01/2023

DU PAGE (Eastern 1/4), LAKE, AND MCHENRY (Hebron, Woodstock, and East thereof) COUNTIES

Rates Fringes

IRONWORKER
Sheeter.....$ 57.25 43.75 Structural and Reinforcing..$ 57.00 43.75 ---------- IRON0063-003 06/01/2024

LAKE, DUPAGE (Eastern 1/4) and McHENRY (HEBRON, WOODSTOCK & EAST THEREOF) COUNTIES

Rates Fringes

IRONWORKER, ORNAMENTAL.....$ 57.51 42.81
---------- IRON0393-003 06/01/2021

DEKALB (SOUTHEASTERN 2/3 including Sycamore and Dekalb), DUPAGE (REMAINDER), KANE, KENDALL (NORTHERN PART), and MCHENRY (SOUTHEAST 1/4) COUNTIES

Rates Fringes

IRONWORKER.....$ 48.83 39.84

---------- IRON0444-006 06/01/2022

KENDALL (Southern Part) and WILL COUNTIES

Rates Fringes

IRONWORKER.....$ 47.80 42.50
---------- IRON0498-003 06/01/2021

BOONE, DEKALB (EXCEPT Southeast), and MCHENRY (Northwest) COUNTIES

Rates Fringes

IRONWORKER.....$ 41.37 44.41
---------- LABO0002-004 06/01/2022

DUPAGE COUNTY

Rates Fringes

LABORER (SEWER CONSTRUCTION)
GROUP 1.....$ 47.40 33.16 GROUP 2.....$ 47.53 33.16 GROUP 3.....$ 47.63 33.16 GROUP 4.....$ 47.75 33.16 GROUP 5.....$ 47.40 33.16

LABORER CLASSIFICATIONS

GROUP 1: Signalmen Top Laborers, and all other Laborers not Mentioned.

GROUP 2: Concrete Laborers; Steel Setters.

GROUP 3: Cement Carriers; Cement Mixers; Concrete Repairmen; Mortar Men; Scaffold Men; and Second Bottom Men.

GROUP 4: Bottom Men; Bracers-Bracing; Bricklayer's Tender; Catch Basin Digger; Drainlayer; Dynamiter; Form Men; Jackhammermen; Powerpac; Pipelayers; Rodders; Welders & Burners; Well Point System Men.

GROUP 5: Asbestos Abatement Laborers, Toxic and Hazardous Waste Removal Laborers & Dosimeter use (any device) Monitoring Nuclear Exposure.

---------- LABO0002-009 06/01/2022

DU PAGE COUNTY

Rates Fringes

LABORER (Compressed Air)

0 - 15 lbs.....$ 48.40 33.16 16 - 20 lbs.....$ 48.90 33.16
21 - 26 lbs.....$ 49.40 33.16
27 - 33 lbs.....$ 50.40 33.16
34 lbs and over.....$ 51.40 33.16 LABORER (Tunnel and Sewer)
GROUP 1.....$ 47.40 33.16 GROUP 2.....$ 47.53 33.16 GROUP 3.....$ 47.63 33.16 GROUP 4.....$ 47.75 33.16 GROUP 5.....$ 47.40 33.16

LABORER CLASSIFICATIONS (TUNNEL)

GROUP 1: Cage tenders; Dumpmen; Flagmen; Signalmen; Top laborers

GROUP 2: Air hoist operator; Key board operator; concrete laborer; Grout; Lock tenders (Free Air Side); Steel setters; Tuggers; Switchmen; Car pusher

GROUP 3: Concrete repairmen; Lock tenders (pressure side); Mortar men; Muckers; Grout machine operators; Track layers

GROUP 4: Air trac drill operator; Miner; Bricklayer tenders; Concrete blower operator; Drillers; Dynamiters; Erector operator; Form men; Jackhammermen; Powerpac; Mining machine operators; Mucking machine operator; Laser beam operator; Liner plate and ring setters; Shield drivers; Power knife operator; Welder- burners; Pipe jacking machine operator; skinners; Maintenance technician

GROUP 5: Asbestos abatement laborer; Toxic and hazardous waste removal laborer; Dosimeter (any device) monitoring nuclear exposure

LABORER CLASSIFICATIONS (SEWER)

GROUP 1: Signalmen; Top laborers and All other laborers

GROUP 2: Concrete laborers and Steel setters

GROUP 3: Cement carriers; Cement mixers; Concrete repairmen; Mortar men; Scaffold men; Second Bottom men

GROUP 4: Air trac drill operator; Bottom men; Bracers-bracing; Bricklayer tenders; Catch basin diggers; Drainlayers; dynamiters; Form men; Jackhammermen; Powerpac; Pipelayers; Rodders; Welder-burners; Well point systems men

GROUP 5: Asbestos abatement laborer, Toxic and hazardous waste removal laborer; Dosimeter (any device) monitoring nuclear exposure

---------- LABO0032-007 05/01/2024

DE KALB COUNTY

Rates Fringes

LABORER
General Laborer.....$ 44.59 36.11 Skilled Laborer.....$ 47.94 36.11

LABORER CLASSIFICATIONS

General Laborer: Carpenter Tender, Tool Cribman, Fireman or Salamander Tender, Flagman, Gravel Box Man, Bumpman & Spotter, Form Handler, Material Handler, Fencing Laborer, Cleaning Lumber, Pit Man, Material Checker, Landscaper, Unloading Explosives, Laying of Sod, Planting of Trees, Asphalt Workers With Machine & Layers, Asphalt Plant Laborer, Wrecking, Fire-proofing, Driving Stakes, Stringlines for All Machinery, Window Cleaning, Demolition Worker, Explosive Handling, Trimming & Removal of Trees, Multi-Plate Pipe, Pilot Cars for Traffic Control, Power Rigging
Skilled Laborer: Asbestos Abatement Worker; Hazardous Waste Worker Handling any Materials with any Foreign Matter Harmful to Skin or Clothing, Track Labor, Cement Handler, Chloride Handler, Unloading & Laborers with Steel Workers & Re-bars, Wet Concrete Workers, Tunnel Tenders in Free Air, Batch Dumper, Mason Tender, Kettle & Tar Man, Tank Cleaner, Plastic Installer, Scaffold Worker, Motorized Buggies or Motorized Unit Used For Wet Concrete or Handling of
Building Materials, Laborers With De-Watering Systems,
Sewer Workers Plus Depth, Vibrator Operator; Cement Silica, Clay, Fly Ash, Lime & Plasters Handlers (Bulk or Bag); Cofferdam Worker Plus Depth, Concrete Paving, Placing, Cutting & Tying of Reinforcing, Deck Hand, Dredge Hand and Shore Laborer, Bankman on Floating Plant, Grade Checker, Power Tools, Front End Man on Chip Spreader, Caisson Worker Plus Depth, Gunnite Nozzleman, Leadman on Sewer Work, Welder, Cutter, Burner & Torchman, Chain Saw Operator, Jackhammer & Drill Operator, Layout Man and/or Tile Layer, Steel Form Setter - Street & Highway, Air Tamping
Hammerman, Signal Man On Crane, Concrete Saw Operator, Screenman on Asphalt Paver, Tending Masons with Hot
Material or Where Foreign Materials are used, Mortar Mixer Operator, Multiple Concrete Duct - Leadman, Luteman,
Asphalt Raker Curb Asphalt Machine Operator, Ready Mix Scaleman Permanent Portable or Temporart Plant, Laborer Handling Masterplate or Similar Materials, Laser Beam Operator, Concrete Burning Machine Operator, Coring Machine Operator, Plaster Tender, Underpinning & Shoring of Buildings, Pump Man, Manhole & Catch Basin, Dirt & Stone Tamper, Hoseman on Concrete Pump.

---------- LABO0075-002 06/01/2022

WILL COUNTY

Rates Fringes

LABORER
GROUP 1.....$ 47.40 33.16 GROUP 2.....$ 47.75 33.16 GROUP 3.....$ 47.40 33.16 GROUP 4.....$ 47.75 33.16 GROUP 5.....$ 47.60 33.16 GROUP 6.....$ 47.75 33.16 GROUP 7.....$ 47.60 33.16

LABORER CLASSIFICATIONS

GROUP 1 - Mortar mixers, handling asphalt shingles; Scaffolds; Sewer and trench work (ground level down to 8 feet); Catch basin and manhole diggers, mesh handling on road work; Cement and mineral filler handler; Concrete puddlers; Batch dumpers (cement & asphalt); Vibrator operators; Sand and stone wheelers to mixer Handlers); Concrete wheelers; Airtamping hammermen; Concrete & paving breakers; Rock drillers/Jackhammermen; Chipping hammermen 1-Bag mixer; Asphalt laborer; Chain and power saws; Pit men; Fencing laborers; Mason tenders (mortar and brick wheeler); Kettlemen & tarmen, tank cleaners; Scaffold and staging laborers; Pot Firemen (tarmen); Heaters tender for any purpose; Water pumps (portable water pumps shall be tended by laborers if the employer determines tending is required); Rip rap; Handling of slab steel road forms in any manner, except road form setting, setting center strips, Contraction and expansion joints (road work); Unloading and handling of lumber, brick, transite materials, cast iron water pipe, reinforced concrete rods, sewer and drain tile, railroad tiles and all other creosoted materials; paving blocks and concrete forms; Handling of insulation of any type; all work involving the unloading of materials, fixtures, or furnishing, whether crated or uncrated; all mortar and composition mixers of sewer work; track laborers; Chimney and silo laborers working at a height of 1 to 48 feet; All laborers working on swinging suspended, or any type or make of scaffolding 1 to 48 feet; All laborers working inside a sphere or any type or make of tank; Working inside a sphere or any type or make of tank from bottom to a height of 48 feet; Form strippers (any type); Mechanical or motorized buggies, for concrete or masons employers; Use of skid steer loads or any other machinery which replaces the wheelbarrow or buggy; Handling multiple concrete duct or any other type of pipe used in public utility work unless otherwise specified herein; Snapping of wall ties and removal of rods; drilling of anchor bolt holes; Concrete or asphalt clipper type saws and self-propelled saws; Shoulder and grade laborers; All hydraulic electric and air or any other type of tools; Grouting and caulking; Cleaning lumber, Nail pulling, Deck hand; Dredgehand; Shore laborer; Bankmen on Floating Plant; Tool and material checkers; Signalmen and Flagmen on all construction work; Cleaning of debris; Removal of trees; Concrete curing, temporary concrete protection regardless of manner or materials used; Laborers on Apsco; Janitorial; Wrecking and demolition laborers

GROUP 2 - Sewer and drain pipe layers and multiple concrete duct or any other type of pipe used, on public utility work (ground level to 8 feet); Pumpcrete pipe handlers

GROUP 3 - Asphalt rakers; Hod carriers; Plasterer laborers; Gunnite laborers, Slab for setters on roads, highways, streets, airport runaways, and radii (any type of form) stringline men for all aforementioned work; Wagon and tower drillers on land and floating plant used on dredging; Asphalt gunners and plug men (undercoating on road work); Mortar pump laborers; Plaster pump laborers

GROUP 4 - Tunnel miners, and all laborers inside tunnel; Air blow pipemen;

Torchmen (burners); Mortaring men on sewer and drain pipe (the applying of mortar and composition mixes); All bottom men on sewer work-all sewer and drain pipelayers-multiple concrete duct or any other type of pipe used on public utility work-8 feet or more below ground level, and all other sewer and trench laborers 8 feet or more below ground level regardless of excavation area; All labor work inside cofferdam; Use of a 10 foot or more drill steel for hand held drills; Caisson laborers ground level down 15 feet; All air tools 8 feet or more below ground level; All laborers working on swinging-suspended or any type or make of scaffolds, 48 feet to 100 feet; All chimney and silo laborers working at a height of 48 to 100 feet;

All tamping hammers over 150 lbs.; All laborers working inside of a sphere or any type or make of tank at a height of 48 feet to 100 feet; all hydraulic, electric and air tools or any other type 8 feet or more below ground level; Vibrators-any type-8 feet or more below ground level

GROUP 5 - Gunnite nozzle men; Caisson laborers and all tamping hammers from 150 lbs and over; from 15 feet below ground level down to 50 feet; and all laborers working inside of a sphere or any type of tank for every additional 50 feet or part thereof above 100 feet in height

GROUP 6 - All underground cavern laborers; Caisson laborers 50 feet or more below ground level; Laborers working under radio active conditions (suiting up); Blasting men (Powdermen)

GROUP 7 - Dosimeter (any device) used for monitoring nuclear exposure; Asbestos abatement worker; Toxic and hazardous waste removal laborer; and chimney and silo laborers for every additional 50 feet or any part thereof above 100 feet high

---------- LABO0149-002 06/01/2022

BOONE, KANE, KENDALL, AND McHENRY COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 47.40	33.16
GROUP 2	$ 47.68	33.16
GROUP 3	$ 47.68	33.16
GROUP 4	$ 47.68	33.16
GROUP 5	$ 47.63	33.16
GROUP 6	$ 47.75	33.16
GROUP 7	$ 47.75	33.16
GROUP 8	$ 47.40	33.16
GROUP 9	$ 48.40	33.16

LABORER CLASSIFICATIONS

GROUP 1: Common laborer, Asphalt laborer, Asphalt plant laborer, Striping laborer, Clipper type concrete saw, Self-propelled saws

GROUP 2: Air tampers & Vibrators

GROUP 3: Mortar & Concrete mixers

GROUP 4: Stringline & form setter; Torchman (demolition), Sheeting & Cribbing, Black top rakers & lutemen, Machine screwmen

GROUP 5: Chain saw man, Jackhammer man, Drillman, Concrete breaders & air spade,

GROUP 6: Tunnel laborers, Tile layers & bottom men

GROUP 7: Caisson diggers, Dynamiters

GROUP 8: Flagman

GROUP 9: Asbestos apatement laborers, Toxic & hazardous waste removal laborers & Dosimeter (any device) monitoring nuclear exposure

---------- LABO0152-003 06/01/2022

LAKE COUNTY
Rates Fringes

LABORER
GROUP 1.....$ 47.40 33.16 GROUP 2.....$ 47.48 33.16 GROUP 3.....$ 47.40 33.16 GROUP 4.....$ 47.63 33.16 GROUP 5.....$ 47.60 33.16 GROUP 6.....$ 47.60 33.16

LABORER CLASSIFICATIONS

GROUP 1: General laborers; Asphalt

GROUP 2: Cement gun laborers

GROUP 3: Asphalt Tampers and Smoothers

GROUP 4: Rakers and Lutemen; Machine screwman; Kettlemen; Mixermen, Drum-Men; Jackhammermen (Asphalt); Mite Box Spreaders; Laborers on birch overman and similar spreader equipment; Laborers on apsco; Laborers on Air Compressors; Paving Form Setters; Jackhammerman (Concrete); Power Drive Concrete Saws

GROUP 5: Cement Gun Nozzle (Gunite)

GROUP 6: Asbestos abatement laborers; Toxic and hazardous waste removal laborers; Dosimeter (any device monitoring nuclear exposure)

---------- PAIN0014-003 06/01/2024

LAKE and WILL COUNTIES

Rates Fringes

PAINTER: Brush Only.....$ 53.05 33.91
---------- PAIN0030-001 06/01/2024

DE KALB, DU PAGE, KANE, KENDALL AND MCHENRY COUNTIES

	Rates	Fringes
PAINTER		
Brush, Drywall Taper/Finisher, Sandblaster, and Spray	$ 53.05	27.63

---------- PAIN0030-004 06/01/2024

BOONE, JO DAVIESS, LEE, OGLE, STEPHENSON AND WINNEBAGO COUNTIES

	Rates	Fringes
PAINTER		
Brush, Roller, Spray, Sandblasting, Paperhanger, Drywall Finishing, Taper, and Spray Structural Steel	$ 45.15	29.41

---------- PLAS0011-002 06/01/2023

WILL COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 46.25	45.10

---------- PLAS0011-008 06/01/2023

DE KALB, KANE, KENDALL, AND McHENRY COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 50.70	40.60

---------- PLAS0011-013 06/01/2023

LAKE COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 48.50	42.82

---------- PLAS0011-015 06/01/2023

BOONE COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 41.03	36.39
PLASTERER	$ 37.90	37.66

---------- PLAS0803-

001 08/01/2010

DUPAGE COUNTY

 Rates Fringes

CEMENT MASON/CONCRETE FINISHER...$ 38.00 24.03
---------- * TEAM0179-002 06/01/2024

KENDALL and WILL COUNTIES

 Rates Fringes

TRUCK DRIVER
 2 or 3 Axle Trucks.....$ 44.82 0.25+a
 4 Axle Trucks.....$ 44.97 0.25+a
 5 Axle Trucks.....$ 45.17 0.25+a
 6 Axle Trucks.....$ 45.37 0.25+a

FOOTNOTES:
a. $1055.60 per week.
b. Lowboy rate based on number of axles

 An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:

 Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or
 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

 Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles
  Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
 Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40

feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0301-001 06/01/2024

LAKE AND MCHENRY COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 44.54	13.40+a
4 AXLES	$ 44.69	13.40+a
5 AXLES	$ 44.89	13.40+a
6 AXLES	$ 45.09	13.40+a

FOOTNOTES:
a.$500.00 per week pension.
b. Lowboy is an additional $1.50 per hour

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or
3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters,

Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40
feet; Pole and Expandable Trailers hauling material over 50 feet long;
Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front
---------- * TEAM0325-004 06/01/2024

BOONE and WINNEBAGO COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2 - 3 Axles	$ 45.47	25.70
4 Axles	$ 45.62	25.70
5 Axles	$ 45.82	25.70
6 Axles	$ 45.93	25.70

FOOTNOTE: An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch
Gate Lockers; Batch Hopperman; Car and Truck Washers; Forkl Lifts and Hoisters; Helpers;
Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers
Pole Trailer, up to 40 feet; Power Mower Tractors; Skipman; Slurry Trucks, two-man operation; Teamsters; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading
equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator;

Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation
Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long, additional $0.50 per hour; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more
*Mechanic*Truck Welder and Truck Painter; *Winter Rate: Between Dec. 15 and Feb. 28 the mechanic and welder rate shall be $2.00 less than the scheduled scale. Truck Painter and Truck Welder classifications shall only apply in areas where and when it has been a past area practice; Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories

Group 4 - Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0330-002 06/01/2024

DEKALB COUNTY

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 43.43	0.25+a
4 AXLES	$ 43.58	0.25+a
5 AXLES	$ 43.78	0.25+a
6 AXLES	$ 43.98	0.25+a

FOOTNOTE: a. $1112.34 per week

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier;

Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40
feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0673-003 06/01/2024

DU PAGE and KANE COUNTIES

Rates Fringes

TRUCK DRIVER
2-3 AXLES.....$ 44.06 0.25+a
4 AXLES.....$ 44.21 0.25+a
5 AXLES.....$ 44.41 0.25+a
6 AXLES.....$ 44.61 0.25+a

FOOTNOTE: a.

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.
Low-Boy is an additional $1.50 per hour
Health and Welfare: $453.20 per week
Penson: $589.90 per week

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10

years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- TEAM0731-002 04/01/2023

Rates Fringes

Traffic Control Device Monitor
TRAFFIC SAFETY WORKER:
Primary duties include but
are not limited to the
delivery, maintenance and
pick-up of traffic control
devices, the set-up and
installation of traffic
signs, pavement markings,

barricades, crash barrels and glare screens, traffic control surveillance, the repair and maintenance trucks, cars, arrow boards, message signs, barricade and sign fabrication equipment.....$ 40.10 20.95

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next

number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers
Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R '1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: IL20240020 10/04/2024

Superseded General Decision Number: IL20230020

State: Illinois

Construction Types: Building Landscape, Heavy Landscape, Highway Landscape and Residential Landscape

Counties: Boone, Cook, De Kalb, Du Page, Grundy, Henry, Kane, Kankakee, Kendall, Lake, McHenry, McLean, Ogle, Peoria, Rock Island, Tazewell, Will, Winnebago and Woodford Counties in Illinois.

LANDSCAPING WORK ON BUILDING, RESIDENTIAL, HEAVY AND HIGHWAY CONSTRUCTION PROJECTS.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.	
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.	

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/05/2024
1 05/24/2024
2 05/31/2024
3 07/05/2024
4 09/13/2024
5 09/20/2024
6 09/27/2024
7 10/04/2024

* ENGI0150-013 06/01/2024

BUILDING AND HIGHWAY CONSTRUCTION (LANDSCAPE WORK): The landscape work for the Landscape Equipment Operator excludes the preparation of sub-grade prior to application of finish landscape materials and the utilization of any equipment over one cubic yard.

BOONE, COOK, DUPAGE, GRUNDY, KANE, KENDALL, LAKE, MCHENRY, AND WILL COUNTIES

Rates Fringes

Operators:.....$ 37.55 9.00+A+B Includes Angle Dozer, Small; Bobcat and other similar type machines, 1 cu yd or less; Chipping Machine; Combination Backhoe and Front End Loader 1 cu yd or less; Fork Lift Truck; Hi-Reach and High-Ranger;Hydraulic Boom with Clam;Log Skidder; Sttraw Blower and Seeder; Stump Machine;Tractors, Crawlers, Rubber Tire Tractors, Highlift Shovels or Front End Loaders 1 cu yd or less; Tree Spades, all; Utility Tractor and attachments, and Rubber Tire Front End loader or similar machine of 1 to 1.5 cu yd solely used for placement of large decorative boulders, trees with balled soil, and other decorative landscape material too large to be accommodated in a 1 cu yd bucket. All other equipment utilized for performing landscape work, tree trimming or removal of stees, and to install plants; transport trees; excavate plant pits; place soil and other landscape materials; and apply finish landscape material on subgrade prepared by others

FOOTNOTE:

A. Health and Welfare contribution is $1,780.00 per month.

B. Paid Holidays: New Year's Day; Memorial Day; Fourth of July; Labor Day; Thanksgiving Day; and Christmas Day
provided that all such employees shall have in fact worked their regularly scheduled work day immediately preceding
and the regularly scheduled work day immediately succeeding the occurrence of such holiday.

---------- * ENGI0150-023 06/01/2024

HIGHWAY CONSTRUCTION (LANDSCAPE WORK): The landscape work for the Landscape Equipment Operator excludes the preparation of sub-grade prior to application

of finish landscape materials and the utilization of any equipment over one cubic yard.

HENRY, MCLEAN, OGLE, PEORIA, ROCK ISLAND, TAZEWELL, WINNEBAGO, and WOODFORD COUNTIES

Rates Fringes

Operators:.....$ 37.55 9.50+A+B Includes the following: Angle Dozer, Small; Bobcat and other similar type machines, 1 cu yd or less; Chipping Machine; Combination Backhoe and Front End Loader 1 cu yd or less; Fork Lift Truck; Hi-Reach and High-Ranger;Hydraulic Boom with Clam;Log Skidder; Sttraw Blower and Seeder; Stump Machine;Tractors, Crawlers, Rubber Tire Tractors, Highlift Shovels or Front End Loaders 1 cu yd or less; Tree Spades, all; Utility Tractor and attachments, and Rubber Tire Front End loader or similar machine of 1 to 1.5 cu yd solely used for placement of large decorative boulders, trees with balled soil, and other decorative landscape material too large to be accommodated in a 1 cu yd bucket. All other equipment utilized for performing landscape work, tree trimming or removal of stees, and to install plants; transport trees; excavate plant pits; place soil and other landscape materials; and apply finish landscape material on subgrade prepared by others

FOOTNOTE:

A. Health and Welfare contribution is $1,780.00 per month.

B. Paid Holidays: New Year's Day; Memorial Day; Fourth of July; Labor Day; Thanksgiving Day; and Christmas Day provided that all such employees shall have in fact worked their regularly scheduled work day immediately preceding and the regularly scheduled work day immediately succeeding the occurrence of such holiday.

---------- LABO0032-004 05/01/2024

HIGHWAY CONSTRUCTION

WINNEBAGO COUNTY

Rates Fringes

Landscape Laborer.....$ 44.59 36.11

---------- LABO0362-003 05/01/2018

HIGHWAY CONSTRUCTION

MCLEAN COUNTY

Rates Fringes

Landscape Laborer.....$ 31.08 24.43
---------- LABO0751-004 05/01/2021

HIGHWAY CONSTRUCTION

KANKAKEE COUNTY

Rates Fringes

Landscape Laborer.....$ 39.44 32.54
---------- LABO0852-004 05/01/2006

HIGHWAY CONSTRUCTION

ROCK ISLAND AND HENRY COUNTIES

Rates Fringes

Landscape Laborer.....$ 21.94 12.79
---------- LABO0996-004 05/01/2018

HIGHWAY CONSTRUCTION

PEORIA, TAZEWELL, AND WOODFORD COUNTIES

Rates Fringes

Landscape Laborer.....$ 32.73 23.74
---------- TEAM0026-005 05/01/2024

MCLEAN (South of a straight line from where Route 24 intersects the Woodford County line in a Southeast direction to the South Southwest corner of Livingston County) COUNTY

Rates Fringes

TRUCK DRIVER
Group 1.....$ 43.24 24.27
Group 2.....$ 43.83 24.27
Group 3.....$ 44.10 24.27 Group 4.....$ 44.49 24.27
Group 5.....$ 45.59 24.27

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on

the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hualing more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combiation units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.
GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

---------- * TEAM0179-004 06/01/2024

GRUNDY, KENDALL, MCLEAN (North of a straight line starting at the intersection of McLean-Woodford Counties line & Route 24 in a Southeastern direction to the South Southwest corner of Livingston County), WILL, and WOODFORD (Northeast corner east of Route 51/251 & North of Route 24) COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 44.82	0.25+a
4 AXLES	$ 44.97	0.25+a
5 AXLES	$ 45.17	0.25+a
6 AXLES	$ 45.37	0.25+a

FOOTNOTES:
a. $1055.60 per week.
b. Lowboy rate based on number of axles

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:
Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances;
Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or
3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40
feet; Pole and Expandable Trailers hauling material over 50 feet long;
Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0179-008 06/01/2024

KANKAKEE COUNTY

Rates Fringes

TRUCK DRIVER
2 or 3 axles.....$ 44.82 0.25+a
4 axles.....$ 44.97 0.25+a
5 axles.....$ 45.17 0.25+a
6 axles.....$ 45.37 0.25+a

FOOTNOTES:
a. $1055.60 per week.

Low-Boy work classification is an additional $1.50 per hour

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances;
Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier;

Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or
3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40
feet; Pole and Expandable Trailers hauling material over 50 feet long;
Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0301-001 06/01/2024

LAKE AND MCHENRY COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 44.54	13.40+a
4 AXLES	$ 44.69	13.40+a
5 AXLES	$ 44.89	13.40+a
6 AXLES	$ 45.09	13.40+a

FOOTNOTES:
a.$500.00 per week pension.
b. Lowboy is an additional $1.50 per hour

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years -
2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks

paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances;
Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to
40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or
3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40
feet; Pole and Expandable Trailers hauling material over 50 feet long;
Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0325-004 06/01/2024

BOONE and WINNEBAGO COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2 - 3 Axles	$ 45.47	25.70
4 Axles	$ 45.62	25.70
5 Axles	$ 45.82	25.70
6 Axles	$ 45.93	25.70

FOOTNOTE: An additional $.20 per axle shall be paid for all vehicles with

more than six (6) axles.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch
Gate Lockers; Batch Hopperman; Car and Truck Washers; Forkl Lifts and Hoisters; Helpers;
Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers
Pole Trailer, up to 40 feet; Power Mower Tractors; Skipman; Slurry Trucks, two-man operation; Teamsters; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading
equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator;
Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump
Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation
Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long, additional $0.50 per hour; Slurry Trucks, one-man operation; Winch Trucks, 3
axles or more
*Mechanic*Truck Welder and Truck Painter; *Winter Rate: Between Dec. 15 and Feb. 28 the mechanic and welder rate shall be $2.00 less than the scheduled scale. Truck Painter and Truck Welder classifications shall only apply in areas where and when it has been a past area practice;
Dual-purpose vehicels, such as mounted crane tucks with
hoist and accessories

Group 4 - Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0330-004 06/01/2024

DEKALB and OGLE (North of Route 72/East of Route 251, Adeline, Byron, Creston, Dement, Forreston North of Route 72, Leaf River North of Route 72, Lynnville, Monroe, Rochelle, & Scott) COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 43.43	0.25+a

4 AXLES.....$ 43.58 0.25+a
5 AXLES.....$ 43.78 0.25+a
6 AXLES.....$ 43.98 0.25+a

FOOTNOTE: a. $1112.34 per week

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and

trucks with scoops on the front

---------- TEAM0371-004 05/01/2024

HENRY and ROCK ISLAND COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1	$ 43.31	24.56
Group 2	$ 43.89	24.56
Group 3	$ 44.21	24.56
Group 4	$ 44.56	24.56
Group 5	$ 45.67	24.56

CLASSIFICATIONS:
GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hualing more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combiation units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.
---------- * TEAM0627-004 05/01/2024

PEORIA, TAZEWELL, and WOODFORD COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1	$ 43.24	24.27
Group 2	$ 43.83	24.27
Group 3	$ 44.10	24.27
Group 4	$ 44.49	24.27
Group 5	$ 45.59	24.27

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck

Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hualing more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combiation units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

---------- * TEAM0673-003 06/01/2024

DU PAGE and KANE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2-3 AXLES	$ 44.06	0.25+a
4 AXLES	$ 44.21	0.25+a
5 AXLES	$ 44.41	0.25+a
6 AXLES	$ 44.61	0.25+a

FOOTNOTE: a.

An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.
Low-Boy is an additional $1.50 per hour
Health and Welfare: $453.20 per week
Penson: $589.90 per week

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years -
2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances;
Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and

Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

---------- * TEAM0722-005 05/01/2024

OGLE (North of Route 72/East of Route 251) COUNTY

	Rates	Fringes
TRUCK DRIVER		
Group 1	$ 43.24	24.27
Group 2	$ 43.83	24.27
Group 3	$ 44.10	24.27
Group 4	$ 44.49	24.27
Group 5	$ 45.59	24.27

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hualing more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combiation units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

---------- TEAM0731-001 06/01/2024

COOK COUNTY - HEAVY AND HIGHWAY

	Rates	Fringes
TRUCK DRIVER		
2 or 3 Axles	$ 43.45	29.49
4 Axles	$ 43.70	29.49
5 Axles	$ 43.90	29.49
6 Axles	$ 44.10	29.49

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

B. 900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

C. An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Low-Boy is an additional $1.50 per hour
Health and Welfare: $448.80 per week Pension: $562.80 per week

---------- TEAM0786-001 06/01/2024

COOK COUNTY - BUILDING AND RESIDENTIAL

	Rates	Fringes
TRUCK DRIVER		
2 & 3 Axles	$ 52.05	0.25+a
4 Axles	$ 52.31	0.25+a

5 Axles.....$ 52.53 0.25+a
6 Axles.....$ 52.74 0.25+a

FOOTNOTES:

a. An additional $.20 per axle shall be paid for all vehicles with more than six (6) axles.

Low-Boy work classification is an additional $1.50 per hour.
Health and Welfare: $433.00 per week
Pension: $400 per week.

B. 900 straight time hours or more in 1 calendar year for the same employer shall receive 1 week paid vacation; 3 years - 2 weeks paid vacation; 10 years - 3 weeks paid vacation; 20 years - 4 weeks paid vacation.

Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

---------- * SUIL1993-001 01/19/1993

BUILDING CONSTRUCTION (LANDSCAPE WORK):

Rates Fringes

LABORER
BOONE, GRUNDY, KANE,
KENDALL, LAKE, MCHENRY, &
WILL COUNTIES
LANDSCAPE LABORERS.....$ 7.25 **
COOK COUNTY
LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE PLANTSMAN.....$ 9.80 ** 1.82
DE KALB COUNTY
LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 7.25 ** LANDSCAPE PLANTSMAN.....$ 9.66 ** .26
DU PAGE COUNTY
LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE PLANTSMAN.....$ 9.04 ** 1.16 GRUNDY, LAKE & WILL
COUNTIES
LANDSCAPE DRIVER 2 & 3
Axles.....$ 11.86 ** 2.81 LANDSCAPE PLANTSMAN.....$ 12.00 ** 3.32
---------- * SUIL1993-002 01/19/1993

HEAVY CONSTRUCTION (LANDSCAPE WORK)

Rates Fringes

LABORER

BOONE, GRUNDY, KANE,
KENDALL, LAKE, MCHENRY &
WILL COUNTIES:
LANDSCAPE DRIVER, 2 & 3
AXLES.....$ 11.94 ** 2.42 LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 13.11 ** 3.01 LANDSCAPE PLANTSMAN.....$ 9.73 ** 2.05
COOK COUNTY:
LANDSCAPE DRIVER, 2 & 3
AXLES.....$ 9.93 ** 1.89 LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 10.98 ** 2.12 LANDSCAPE PLANTSMAN.....$ 10.08 ** 2.06
DE KALB COUNTY:
LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 7.25 ** LANDSCAPE PLANTSMAN.....$ 9.66 ** .26
DU PAGE COUNTY:
LANDSCAPE DRIVER, 2 & 3
AXLES.....$ 8.32 ** 1.02 LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 10.75 ** LANDSCAPE PLANTSMAN.....$ 10.65 ** ---------- *
SUIL1993-003 01/19/1993

HIGHWAY CONSTRUCTION (LANDSCAPE WORK):

Rates Fringes

LABORER
DE KALB COUNTY
LANDSCAPE LABORERS.....$ 7.25 ** LANDSCAPE OPERATORS.....$ 7.25 ** LANDSCAPE PLANTSMAN.....$ 9.66 ** .26 KANKAKEE COUNTY:
LANDSCAPE DRIVER.....$ 8.75 ** .17 LANDSCAPE OPERATOR.....$ 16.57 ** 3.56 PEORIA, TAZEWELL, &
WOODFORD COUNTIES:
TRUCK DRIVERS 2 & 3 AXLES..$ 17.58 5.88

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use

paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and

rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R '1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:
 * an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.
==========

END OF GENERAL DECISION"

AMERICAN IRON AND STEEL SAMPLE CERTIFICATION

Sample Certification

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:
1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

DE MINIMIS WAIVER FOR BUILD AMERICA, BUY AMERICA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 2 1 2022

THE ADMINISTRATOR

DECISION MEMORANDUM

SUBJECT: Public Interest: *De Minimis* General Applicability Waiver of Section 70914(a) of P.L. 117-58, Build America, Buy America Act, 2021 for U.S. Environmental Protection Agency Financial Assistance Awards and Procurements

FROM: Michael S. Regan

Introduction

Congress passed, and the President signed in November 2021 the Infrastructure Investment and Jobs Act, which included the Build America, Buy America Act. This is a transformational opportunity to build a resilient supply chain and manufacturing base for critical products here in the United States that will catalyze new and long-term investment in good-paying American manufacturing jobs and businesses. Consistent with the policy direction of Executive Order 14005: Ensuring the Future is Made in All of America by All of America's Workers, section 70914 of the Infrastructure Investment and Jobs Act establishes governmentwide Buy America conditions on all federal financial assistance programs and the projects funded through federal financial assistance funded after May 14, 2022.

The U.S. Environmental Protection Agency remains committed to implementing Build America, Buy America to cultivate the domestic manufacturing base for a range of products. Products that qualify for a *de minimis* waiver cumulatively may comprise no more than a total of five percent of the total project cost. This waiver is not additive with the existing American Iron and Steel national *de minimis* waiver. The EPA's infrastructure programs vary widely from small community projects costing thousands of dollars up to large billion-dollar regional infrastructure projects. The EPA solicited public comment on including a dollar cap per project. The EPA received no public comments supporting including a cap. Based on an assessment of agency infrastructure projects, many larger projects in a variety of covered infrastructure programs have such significant material costs that a dollar cap would not provide the flexibility intended by the *de minimis* waiver. After consideration of the public comments received, the EPA is not including a dollar cap for its waiver.

Build America, Buy America *De Minimis* Waiver

The Office of Management and Budget's April 18, 2022, memorandum, "Initial Implementation Guidance on Application of Buy American Preference in Federal Financial Assistance Programs for Infrastructure" (M-22-11) encourages agencies to consider whether a general applicability public interest waiver should apply to infrastructure project purchases below a *de minimis* threshold to reduce the administrative burden for recipients and agencies. OMB directs agencies to ensure that recipients

and federal agencies make efficient use of limited resources, especially if the cost of processing the individualized waiver would risk exceeding the value of the items waived.

This waiver advances Build America, Buy America by reducing the administrative burden to potential assistance recipients where the costs of compliance could distract from the focus on higher value compliant items. Failure to provide recipients such flexibilities could delay the award for infrastructure projects as assistance recipients must exert considerable effort accounting for the sourcing for miscellaneous, low-cost items.

Anticipated Program Impacts Absent a Waiver

Build America, Buy America impacts more than 60 EPA programs. The agency is committed to robust implementation of the act's Buy American Preference in an efficient and effective manner. This waiver seeks to significantly reduce the administrative burden on recipients while exempting a small share (five percent or less) of the total project cost from the Buy American Preference requirement.

Infrastructure projects often contain a relatively small number of high-cost products incorporated into the projects. In solicitations for a project, these high-cost products are generally described in detail via project specific technical specifications. For these major products, recipients are generally familiar with the conditions of availability, the potential alternatives for each detailed specification, the approximate cost, and the country of manufacture of the available components.

Infrastructure projects also involve the use of potentially thousands of miscellaneous, generally low-cost products that are essential for construction and are incorporated into the physical structure of the project. For many of these miscellaneous products, the country of manufacture and the availability of alternatives are not always readily or reasonably identifiable prior to procurement in the normal course of business; for other miscellaneous products, the country of manufacture may be known but the miscellaneous character in conjunction with the low cost, individually or procured in bulk, mark them as potentially *de minimis* items.

Failure to grant such a waiver creates significant administrative burden for the EPA and recipients as both sides must negotiate such products on a project-by-project basis, which will increase the cost to the taxpayer, delay the award of assistance agreements and procurement, and has negligible relevance to the intent of Build American, Buy American. With application of this waiver, federally funded infrastructure projects would be aided in meeting the critical public health protection and environmental project purposes on time and on budget. By focusing the programs' attention on high-value domestic products (representing most of the federal infrastructure investment), the EPA will be well-positioned to catalyze resilient domestic supply chains and invest in good-paying American manufacturing jobs and businesses. Absent the waiver, critical public-health protection and environmental infrastructure projects could expend resources inefficiently, potentially failing to deliver on the critical goals of projects and the domestic preference requirements.

Assessment of Cost Advantage of a Foreign-Sourced Product

Under OMB Memorandum M–22–11, agencies are expected to assess "whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron or manufactured products or the use of injuriously subsidized steel, iron or manufactured products" as appropriate before granting a public interest waiver. The EPA's analysis has concluded that this

assessment is not applicable to this waiver, as this waiver allows only a small, *de minimis* value of products to be waived relative to the total cost of a project. The EPA will perform additional market research as it implements the Build America, Buy America requirements to better understand the market and to limit the use of waivers caused by dumping of foreign-sourced products.

Public Notice

The EPA published July 27, 2022, a notice proposing to issue this waiver, and the comment period was open until August 15, 2022. The agency received 41 comments during the public comment period: one representing a federal agency; nine representing manufacturers and the manufacturing industry; 21 representing state agencies; three representing territories; and seven representing rural partnerships and water associations. Most comments were supportive of the waiver with many requesting a threshold higher than the proposed five percent, usually 10 to 15 percent. Of the few comments on a cap, some were opposed, and others supported a cap contingent on a threshold higher than the proposed five percent. Some commenters opposed the waiver because the waiver could reduce opportunities for American manufacturing. Other commentors requested that the Build America, Buy America *de minimis* waiver mirror the American Iron and Steel *de minimis* waiver.

The EPA received comments on the use of material cost as the calculation basis for the threshold versus using project costs. The EPA agrees that material costs are often built into contracts along with other costs, making it difficult to consistently determine an appropriate threshold for projects. Using project cost and not material cost will simplify the calculation and would alleviate burden and confusion for assistance recipients. Therefore, the EPA has changed the calculation basis from material cost to project cost.

The EPA also received many comments on the five percent threshold itself. No comments requested that the threshold be lowered, a few comments agreed with the EPA's threshold, and many requested that the threshold be increased (to up to 20 percent with most requesting an increase to 15 percent) or requested that the threshold be modified so the five percent limit would apply to each of the three subcategories (five percent for iron and steel, five percent for construction materials and five percent for manufactured products). With the cost calculation changing from material costs to project costs, this will functionally increase the amount of products that can be covered by this waiver for most projects. Therefore, after consideration of these comments, the EPA is finalizing the proposed five percent threshold.

The EPA received comments and questions on the examples provided as items that, dependent on the conditions and purpose of the project, may or may not be considered *de minimis*. The EPA's intention was to provide examples to assist programs; however, this created confusion that only certain items could be covered. The five percent threshold can be used for any products, independent on the purpose of the project. The EPA is removing the examples from the text of the final waiver to avoid confusion.

After reviewing these comments, the EPA concludes that the information provided to the agency generally supports a general applicability waiver. Products that qualify for a *de minimis* waiver cumulatively may comprise no more than a total of five percent of the total project cost.

Waiver Decision

Section 70914(b)(1) of the Infrastructure Investment and Jobs Act authorizes the Administrator to waive the requirements of Build America, Buy America if implementation would be inconsistent with the public interest. Due to the critical need to reduce the administrative burden for recipients and agencies and to ensure recipients can effectively carry out the EPA funded activity in a timely manner, it is in the public interest to waive Build America, Buy America requirements for products used in and incorporated into a project that cumulatively comprise no more than five percent of the total project cost. This waiver is not additive with the existing American Iron and Steel national *de minimis* waiver. The EPA will review this waiver every five years after the date on which the waiver is issued.

If you have any questions concerning the contents of this memorandum, please contact Dan Coogan at EPA_BABA_Waiver@epa.gov.

SECTION 02 41 00

DEMOLITION

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: All demolition, removal, and salvage work as shown on the Drawings or specified herein to include, but not necessarily limited to the removal drawings within the Drawings set.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

A. Standard Specifications: Unless otherwise specified, Standard Specifications shall refer to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.03 SUBMITTALS

A. CONTRACTOR shall submit permits and notices, if required, authorizing building demolition.

1.04 QUALITY ASSURANCE

A. CONTRACTOR shall perform demolition, removal, and salvage in conformity with applicable federal, state, and local safety practices and code requirements.

B. CONTRACTOR shall contact all public utilities and shall shut off, cut and cap all utility services in accordance with utility requirements, codes, rules, and regulations.

C. Obtain and pay for all necessary permits, licenses, and certificates required.

1.05 SEQUENCE

A. No demolition, removal, or salvage work shall commence until approval to proceed has been granted by OWNER. Such work shall be completed in accordance with the construction sequence included in Division 01 of these Specifications and in accordance with the construction phases of this project and work to be done by other contractors.

1.06 MEASUREMENT AND PAYMENT

A. Utility structures to be abandoned, including valve vaults, water valve boxes, manholes, catch basins, and inlets, as described herein, shall be paid for at the Contract unit price bid per each.

B. Utility structures to be removed, including valve vaults, manholes, catch basins, and inlets, as described herein, shall be paid for at the Contract unit price bid per each, in accordance

with Section 605 of the Standard Specifications. Removal of water valve boxes shall be considered separately and shall be paid for at the Contract unit price bid per each.

C. Water main removal, as described herein, shall not be paid for separately, but shall be considered incidental to the Work.

D. Pavement removal shall be considered incidental to the Work and shall not be measured or paid for separately.

E. Sidewalk removal shall be measured and paid for at the Contract unit price bid per square foot, in accordance with Section 440 of the Standard Specifications.

F. Driveway pavement removal shall be measured and paid for at the Contract unit price bid per square yard, in accordance with Section 440 of the Standard Specifications.

G. Hot-mix asphalt surface removal, of the thickness specified, shall be measured and paid for at the Contract unit price bid per square yard, in accordance with Section 440 of the Standard Specifications.

H. Fire Hydrants to be Removed shall be measured and paid for at the Contract unit price bid per each and shall include removal of the auxiliary valve and all labor and materials, including trench backfill needed to backfill the trench. Surface restoration will be paid for separately.

I. Pavement Marking Removal–Water Blasting, shall be measured and paid for by the square foot, in accordance with Section 783 of the Standard Specifications.

J. Signs to be removed and reinstalled shall not be measured for payment and shall be considered incidental to the Work being performed.

K. Sewer removal, as described herein, shall not be paid for separately, but shall be considered incidental to the work.

L. Gravel driveway removal shall not be paid for separately, but shall be considered incidental to the Work.

M. Brick shoulder removal shall not be paid for separately, but shall be considered incidental to the Work.

N. Combination curb and gutter removal shall not be paid for separately, but shall be considered incidental to the Work.

PART 2–PRODUCTS

2.01 GENERAL

A. Compacted fill shall meet the requirements of Section 31 23 00–Excavation, Fill, Backfill, and Grading.

B. Pipe fittings and materials shall meet the requirements of Section 33 00 10–Buried Piping and Appurtenances.

PART 3–EXECUTION

3.01 BREAKING DOWN AND REMOVING STRUCTURES

A. General:
1. All existing structures, with all attached parts and connections, shown on the Drawings or specified to be removed or that interfere with the new construction, shall be entirely removed within the limits shown or specified, unless otherwise provided.
2. When a portion of any existing structure is to be retained, CONTRACTOR shall take care during construction operations so as not to impair the value of the retained portion.
   a. Complete all operations necessary for the removal of any existing structure which might endanger the new construction prior to the construction of the new work.
   b. Do not use any equipment or devices which might damage structures, facilities, or property which are to be preserved and retained.
3. When existing reinforcing is exposed at the surface of removal areas, CONTRACTOR shall burn back the reinforcing bars 2 inches and patch with nonshrink grout, unless noted otherwise.

B. Pavement, Curb, Gutter, Sidewalk, Driveways, Crosswalk, and Similar Structures:
1. Where portions of the existing structure are to be left in the surface of the finished work, CONTRACTOR shall remove the structure to an existing joint, or saw and chip the structure to a true line.
2. Sufficient removal shall be made to provide for proper grades and connections in the new work.

C. Walls, Piers, Surface Drains, Foundations, and Similar Masonry Structures:
1. Remove entirely or break down to an elevation at least 2 feet below the earth subgrade within the areas of a road bed and elsewhere to 2 feet below the finished slopes or natural ground, as the case may be.
2. Remove existing construction as required to clear new construction.

D. Valve Vaults, Water Valve Boxes, Manholes, Catch Basins, and Inlets: Removal of valve vaults, manholes, catch basins, and inlets shall meet the requirements of Section 605 of the Standard Specifications. Backfill the resulting hole or pit in accordance with the backfill portion of this section.

3.02 ABANDONING STRUCTURES

A. Valve Vaults, Water Valve Boxes, Manholes, Catch Basins, and Inlets:
1. CONTRACTOR shall abandon existing valve in place.
2. CONTRACTOR shall plug existing pipe connections with brick or concrete block masonry or with any grade of concrete having a 28-day compressive strength in excess of 2,000 psi.
3. CONTRACTOR shall remove the walls of the structures to an elevation at least 2 feet below the finished grade line, or to such elevation that may be designated on the Drawings or as necessary to clear new construction.

3.03 ABANDONING AND REMOVING UTILITIES AND UNDERGROUND PROCESS PIPING

A. CONTRACTOR shall be responsible for the turning off or unhooking of all utilities and process piping before starting the demolition work. Remove all utility lines, including

electrical services, water main, and water services that are shown or specified to be removed. Remove utility lines that are to be abandoned as needed to clear new construction.

B. The ends of sewer pipes shown or specified to be abandoned that are exposed by excavation shall be plugged with concrete to prevent soil infiltration into the pipes. The ends of pressure pipes shown or specified to be abandoned that are exposed by excavation shall be capped with a mechanical joint cap.

C. CONTRACTOR shall close valve and remove operating nut for all valves shown or specified to be abandoned.

3.04 SALVAGE

A. OWNER has first right of refusal to all material, piping, and equipment removed.

B. All equipment, material, and piping, except as specified hereinafter, within the buildings and structures to be demolished and additional items as noted shall be removed by CONTRACTOR. CONTRACTOR shall inspect each structure and determine the type and amount of equipment, materials, and piping to be removed.

C. All equipment, material, and piping, except as specified hereinafter, within the limits of the demolition and additional items noted to be removed, will become the property of CONTRACTOR if OWNER does not claim under first right of refusal and shall be removed from the project site. Comply with State and local ordinances and regulations for disposing of materials.

D. If CONTRACTOR chooses to dispose of materials in a Clean Construction or Demolition Debris (CCDD) fill operation, CONTRACTOR shall provide all required testing, certifications and fees associated with using the CCDD fill operation.

3.05 BACKFILL

A. CONTRACTOR shall fill all abandoned structures and excavations resulting from removal of structures and utilities with compacted fill. See Section 31 23 00–Excavation, Fill, Backfill, and Grading for required degree of compaction.

B. Prior to filling, CONTRACTOR shall break one opening in the floor or wall near the base of each compartment to allow groundwater to freely migrate through the structure.

3.06 REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES

A. Pavement removal, sidewalk removal, driveway pavement removal, and hot-mix asphalt surface removal shall be performed in accordance with Section 440 of the Standard Specifications.

B. CONTRACTOR shall take care during brick shoulder removal to not damage bricks for replacement.

3.07 FIRE HYDRANTS TO BE REMOVED

A. Work shall consist of removing existing fire hydrants. Work shall be in accordance with the Standard Specifications for Water and Sewer Construction in Illinois and standard details.

B. CONTRACTOR shall remove and dispose of fire hydrants and auxiliary valve in box assemblies a minimum of 2 feet below the existing or proposed finished ground surface. The fire hydrant lead shall be abandoned in place by capping the end. The void space created from removing the assemblies should be backfilled with trench backfill material meeting the requirements of Section 31 23 00–Excavation, Fill, Backfill, and Grading.

C. CONTRACTOR shall return removed hydrant, auxiliary valve, and valve box to OWNER, and shall take care to not damage the equipment during removal.

END OF SECTION

SECTION 31 10 00

CLEARING AND GRUBBING

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Cutting and disposing of trees, brush, windfalls, logs, and other vegetation.
   2. Removing and disposing of roots, stumps, stubs, logs, and other timber.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. Measurement and Payment:
   1. Clearing and grubbing shall be incidental to the work being performed and shall not be measured or paid for separately.
   2. Tree trunk protection shall be measured and paid for at the Contract unit price bid per each, in accordance with Section 201 of the Standard Specifications.
   3. Tree Removal (6 to 15 Units Diameter) shall be measured and paid for at the Contract unit price bid per unit diameter, in accordance with Section 201 of the Standard Specifications.
   4. Tree Removal (Over 15 Units Diameter) shall be measured and paid for at the Contract unit price bid per unit diameter, in accordance with Section 201 of the Standard Specifications.
   5. Tree root pruning shall be considered incidental to the Work being performed.

1.02 REFERENCES

A. Standard Specifications: Unless otherwise indicated, Standard Specifications within this section shall refer to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 PREPARATION

A. CONTRACTOR shall identify existing plant life to remain and shall tag accordingly.

3.02 PROTECTION

A. CONTRACTOR shall protect from damage utilities and structures that are to remain.

B. CONTRACTOR shall protect trees, plant growth, and features designated to remain as final landscaping, and shall meet the requirements of Section 201 of the Standard Specifications.

C. See Division 01 for protection of survey monumentation.

D. Repair or replacement of existing plant material shall meet the requirements of Article 201.07 of the Standard Specifications and shall be at CONTRACTOR's expense.

E. CONTRACTOR shall perform root and tree pruning in accordance with Article 201.06 of the Standard Specifications.

3.03 CLEARING AND GRUBBING

A. Clearing and grubbing shall consist of cutting and disposing of trees, brush, windfalls, logs, and other vegetation of a diameter of less than 6 inches (150 mm) , and the removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from within the clearing limits as defined on the Drawings, designated to be removed on the Drawings or in the Specifications, or fall within the excavation, embankment, or improved areas of the site.

B. All roots and stumps shall be removed to a depth of not less than 12 inches below the original ground surface in embankment areas. In cut areas, such material shall be removed to a depth of not less than 12 inches below the subgrade.

C. Disposal by burning or burying clearing and grubbing items within the project limits is not allowed.

3.04 TREE PROTECTION

A. Trees shall be protected when construction activities affect the root zones and limbs.

B. Minimize storage and use of heavy equipment and materials within Critical Root Zone (CRZ), which is considered 1 to 1.5 times the diameter (in) at breast height of tree. For example, a 10-inch-diameter tree would require a 10- to 15-foot diameter of protection.

C. Any exposed fine roots shall be kept damp. Any damaged roots above 1-inch diameter shall be cut clean.

D. Tree branches damaged as a result of construction activity shall be cut clean. CONTRACTOR shall make a good faith effort to follow and implement the tree protection plan.

E. In areas where existing trees are to be protected, the area inside the protective fencing shall not be used for any purpose related to construction activities, such as material storage, vehicle parking, portable toilets, or other disruptive activities that would result in damage of any kind to the site inside the fence.

3.05 TREE REMOVAL

A. Tree removal shall consist of the cutting, grubbing, removal, and disposal of trees and stumps of a diameter equal to or greater than 6 inches (150 mm) as defined in Section 201 of the Standard Specifications.

B. Trees marked for removal within street and road rights-of-way and in easements shall be removed by CONTRACTOR and properly disposed.

C. It is intended that as many trees as possible be saved during construction. No trees, except those so designated, shall be removed without prior approval of OWNER. CONTRACTOR shall conduct the Work to protect all trees designated to remain. CONTRACTOR shall provide suitable fencing installed at the tree drip line for all trees within the construction area to protect trees from damage and soil compaction by equipment.

D. When removing trees, special care shall be taken to not damage surrounding private property. Costs for tree removal or replacement and construction around trees shall be included in the price bid for the work.

END OF SECTION

SECTION 31 23 00

EXCAVATION, FILL, BACKFILL, AND GRADING

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: Excavating, filling, backfilling, and grading for this work includes, but is not necessarily limited to:
   1. Excavating for roads, utilities, sidewalks, driveways, parking lots, restoration, and miscellaneous areas.
   2. Furnishing and placing all fill and backfill.
   3. Provide compaction of all fill and backfill.
   4. Furnishing and placing of crushed stone mat below tank slabs and manhole/vault slabs, or other structures where required.
   5. Rough and finish grading prior to paving, seeding, etc.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. Measurement:
   1. Removal and Disposal of Unsuitable Material shall be measured in accordance with Section 202 of the Standard Specifications.
   2. Removal and Disposal of non-CCDD Material shall be measured in accordance with Section 669 of the Standard Specifications.
   3. Excavation, Stockpiling, and Removal of Hazardous Waste shall be measured in accordance with Section 669 of the Standard Specifications.
   4. Trench backfill shall be measured in accordance with Section 208 of the Standard Specifications.
   5. Flowable fill shall be measured in accordance with Section 593 of the Standard Specifications.

D. Payment:
   1. All trench excavation, except rock excavation and unsuitable foundation materials as herein described, shall be considered incidental to the cost of the pipe or associated structured being installed and will not be measured for payment.
   2. Removal and Disposal of Unsuitable Material, as herein described, shall be paid for at the Contract unit price bid per cubic yard.
   3. Removal and disposal of non-CCDD material shall be paid for at the Contract unit price bid per cubic yard.
   4. Excavation, Stockpiling, and Removal of Hazardous Waste, as herein described, shall be paid for at the Contract unit price bid per cubic yard.
   5. Trench bedding and cover material, as herein described, shall be considered incidental to the cost of the pipe or associated structure being installed and will not be measured for payment.
   6. Special bedding, as herein described, shall be measured and paid for at the Contract unit price bid per cubic yard for Foundation Material.
   7. All backfill for valve vaults, inlets, catch basins, and manholes, as herein described, shall be considered incidental to the cost of the structure being installed and will not be measured for payment.

8. Trench backfill, as herein described, under or within two feet of paved surfaces shall be paid for at the Contract unit price bid per cubic yard.
9. Flowable Fill, as herein described, shall be paid for at the Contract unit price bid per cubic yard for Controlled Low-Strength Material.

1.02 REFERENCED STANDARDS

A. Standard Specifications: Unless otherwise indicated, Standard Specifications within this section shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

B. ASTM C33–Standard Specification for Concrete Aggregates.

C. ASTM D698–Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).

D. ASTM D1557–Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).

E. SSWSCI–Unless otherwise indicated, SSWSCI within this section shall refer to the Standard Specifications for Water and Sewer Construction in Illinois, current edition.

1.03 SUBMITTALS

A. Submit sources and gradations for materials proposed for use as compacted fill, utility trench backfill, trench bedding and cover material, crushed stone mat, and granular cushion.

B. Submit samples of materials proposed for use in Paragraph 1.03.A to a soils testing laboratory for analysis of its suitability and for recommendations on moisture content during compaction, compaction methods, or other appropriate information.

C. Submit sufficient samples of each different type or classification of soil to obtain representative values.

1.04 JOB CONDITIONS

A. The elevations shown for existing work and ground are reasonably correct, but are not guaranteed to be absolutely accurate. No extras will be allowed because of variations between drawings and actual grades.

B. Soil borings were made and the soils information is included in an appendix to these Specifications. The information contained is not guaranteed to be indicative of conditions to be encountered during construction. It is CONTRACTOR’s responsibility to make its own investigations to determine physical conditions at the site, which may affect the work.

PART 2–PRODUCTS

2.01 COMPACTED FILL

A. All fill and backfill material designated to be compacted fill shall be granular with no stones larger than 4 inches and shall be reasonably well-graded throughout the particle size range. A minimum 65% of the material shall pass the 3/4-inch sieve, and the material shall be capable of being compaction tested in accordance with ASTM D1557, as determined by the Project Soils Engineer. Of that portion of the material passing the No. 4 sieve, not more than 25% shall pass the No. 200 sieve, and material shall have less than 5% clay content. When placing fill during wet weather or in wet areas, this requirement shall be modified to not more than 5% passing the No. 200 sieve. Adequately dewatered areas are not defined as wet areas.

B. Native material may be used as compacted fill if it meets the above specification. CONTRACTOR shall determine whether native material meets the above specification. CONTRACTOR shall provide all needed fill material whether from on-site or off-site at no additional cost to OWNER.

2.02 CRUSHED STONE MAT

A. Crushed stone mat below valve vaults shall be gradation CA-6 in accordance with the Village of Oswego Standard Detail OSW-W-8 Standard Valve Vault and meeting the requirements of the Standard Specifications.

2.03 CONCRETE FILL

A. Concrete fill shall be Class SI concrete as defined in the Standard Specifications fill, as defined in this section.

2.04 FLOWABLE FILL

A. Flowable fill shall be a self-compacting, self-leveling, material consisting of a mixture of fine aggregate and filler (as needed), water, and cementitious materials (Portland cement, fly ash, granulated blast furnace slag) that is in a flowable state at the time of placement meeting the requirements for Controlled Low Strength Materials (CLSM) as defined in Article 1019.05 of the Standard Specifications. The flowable fill shall be proportioned by the ready mixed concrete supplier on the basis of field experience and/or laboratory trial mixtures meeting the requirements of Sections 593 and 1019 of the Standard Specifications.

B. CONTRACTOR shall submit the following information well in advance of fill placement to avoid any delay in construction:
   1. Gradation of fine aggregate.
   2. Design mix.
   3. Previous test results with 7- and 28-day compressive strengths.
   4. Certified mill test results for cement identifying brand, type, and chemistry of cement to be used.
   5. Brand, type, principle ingredient, and amount of each admixture if used.

2.05 TRENCH BEDDING MATERIAL

A. Bedding material shall be hard and durable and shall be made by crushing sound limestone or dolomite ledge rock, or crushed gravel aggregate. Bedding material shall conform to the requirements of ASTM C33 and shall conform to gradation CA-7, meeting the requirements of the Standard Specifications.

B. Concrete and other rigid pipe shall be bedded with CA-7 gradation stone in accordance with the Village of Oswego Standard Detail for Trench Bedding/Backfilling.

C. Ductile and cast iron pipe shall be bedded with CA-7 gradation stone in accordance with the Village of Oswego Standard Detail for Trench Bedding/Backfilling.

D. PVC sewer pipe and related appurtenances shall be bedded with CA-7 gradation stone in accordance with the Village of Oswego Standard Detail for Trench Bedding/Backfilling.

E. Bedding material for copper water services shall conform to gradation CA-6, meeting the requirements of the Standard Specifications.

2.06 TRENCH COVER MATERIAL

A. Material which is to be placed from the bedding material to the pipe springline (haunching), and from the springline to 1 foot above the top of the pipe (initial backfill) shall be termed cover material. All trenches shall be backfilled by hand to 1 foot above the top of the pipe with cover material. Cover material shall be deposited in the trench for its full width on each side of the pipe, fittings and appurtenances simultaneously in 6-inch layers and shall be compacted using hand tamping bars and/or mechanical tampers. Use special care in placing cover material to avoid injury to or movement of the pipe. Cover material for pipes shall be gradation CA-7, meeting the requirements of the Standard Specifications. Cover material for water services shall be gradation CA-6, meeting the requirements of the Standard Specifications.

B. Native trench materials may be used for cover material if they substantially conform to the above gradation specifications and a suitable credit is extended to OWNER.

C. All bedding materials may be substituted for cover material when requested by CONTRACTOR except where polyethylene encasement is used. In such case, only those bedding materials specifically noted for polyethylene encasement may be used.

D. Native trench materials may be used for initial backfill for concrete pipe in areas that are not under or within two feet of paved surfaces.

2.07 TRENCH BACKFILL MATERIAL

A. Backfill shall be that material placed between the top of cover material up to subgrade for placement of restoration materials. Backfill for storm inlets shall be bedding material.

B. When the type of backfill material is not otherwise specified or shown on the Drawings, CONTRACTOR may backfill with the excavated material, provided that such material consists of loam clay, sand, gravel, or other materials which, in the opinion of Project Soils Engineer, are suitable for backfilling.

C. All backfill material shall exceed a temperature of 35°F and be free from frost, cinders, ashes, refuse, vegetable or organic matter, boulders, rocks, or stone, frozen lumps, or other material which in the opinion of Project Soils Engineer is unsuitable. From 1 foot above the top of the pipe to the trench subgrade, well-graded material containing stones up to 8 inches in their greatest dimension may be used, unless otherwise specified. Care should be taken in backfilling so as not to damage the installed pipe.

D. In refilling the trench, if there is not sufficient material excavated therefrom suitable for refilling, CONTRACTOR shall, without extra compensation, furnish the deficiency. Where indicated on the Drawings, fill shall be provided over projecting conduits. Such fill shall be free of large boulders, and the top 6 inches shall be of suitable material to fit the adjoining ground.

E. When called for on the Drawings, in the Specifications, or requested by ENGINEER, backfill material shall be granular and shall consist of durable particles ranging in size from fine to coarse in a substantially uniform combination. Sufficient fine material shall be present to fill all the voids in the coarse material. No stones over 3 inches or clay lumps shall be present. Unless otherwise allowed by ENGINEER, granular backfill shall generally conform to gradation CA-7, meeting the requirements of the Standard Specifications.

F. Trench backfill material for trenches under or within two feet of existing or proposed pavements, sidewalks, curb and gutter, driveways, or where indicated on the Drawings, shall be granular backfill matching the gradation of the cover material as described herein. The top 12 inches of granular backfill shall conform to gradation CA-6, meeting the requirements of the Standard Specifications.

2.08 SPECIAL BEDDING

A. Special bedding shall be gradation CA-1 meeting the requirements of the Standard Specifications.

PART 3–EXECUTION

3.01 GENERAL

A. Prior to all excavating, CONTRACTOR shall become thoroughly familiar with the site and site conditions.

3.02 PROTECTION

A. CONTRACTOR shall provide all necessary sheeting, shoring, or other soil retention systems including all labor, material, equipment, and tools required, or as necessary to maintain the excavation in a condition to provide safe working conditions, to permit the safe and efficient installation of all items of Contract work, and to protect adjacent property. CONTRACTOR shall be held liable for any damage which may result to property from excavation or construction operations. Sheeting, shoring, and other soil retainage systems shall be withdrawn or removed in a manner so as to prevent subsequent settlement of structures, utilities, and other improvements.

B. Design of sheet piling and other soil retaining systems shall be the sole responsibility of CONTRACTOR. Where such systems are shown on the Drawings, no parameters such as

embedment depth, section profile, presence or lack of whalers, etc., nor system type or suitability shall be inferred. CONTRACTOR is responsible for designing and providing a fully functional system compatible with construction and site requirements.

C. Nothing in this specification shall be deemed to allow the use of protective systems less effective than those required by the Occupational Safety and Health Administration (OSHA) and other applicable code requirements.

3.03 FINISH ELEVATIONS AND LINES

A. CONTRACTOR is responsible for establishing finish elevations and lines.

B. Where lasers are used, CONTRACTOR shall check the Work against intermediate grade stakes. Prior to initial use of the laser, CONTRACTOR shall set up laser on ground surface and check line and gradient controls. Lasers not functioning properly shall be immediately removed.

C. If existing property stakes, not within the limits of the trench or street slope limits, are removed or damaged by CONTRACTOR, CONTRACTOR shall bear the cost of replacement. Replacement shall be made by a legal survey performed by a licensed Land Surveyor hired by OWNER. Cost for survey shall be deducted from the Contract Price.

3.04 EARTH EXCAVATION

A. After the site has been cleared and stripped, the site shall be cut and filled to the indicated subgrade as shown or specified.

B. All excavated material that does not meet the specification for compacted fill or embankment fill or meets the specification but is not required for backfill or fill shall be classified as excess material and shall be removed from the site and disposed of at CONTRACTOR's expense.

C. All material other than suitable bearing soil or bedrock, as determined by the Project Soils Engineer, shall be removed from under concrete to be poured on ground.

D. Excavations scheduled to extend below groundwater shall not be started until the area has been dewatered. See Section 31 23 19–Dewatering.

E. All street excavation shall be performed as called for in Section 202 of the Standard Specifications and as herein modified.

F. The following items of Work shall be included in earth excavation:
   1. The excavation to subgrade elevations as detailed in the Drawings including road bed areas, terraces, sidewalks, bike paths, driveways, and other miscellaneous surface improvements.
   2. Removal (and stockpiling, if the use of salvaged topsoil is required) of topsoil from all cut areas and fill areas within a 1:1 slope of finished street, sidewalks, bike paths, driveways, and other miscellaneous surface improvements.
   3. The preparation, grading, compaction, and proof-rolling of subgrade areas for roadbed, sidewalks, bike paths, driveways, and other miscellaneous surface improvements to the elevations detailed on the Drawings.

4. Excavation and grading required to realign and/or create ditch lines and drainage ways to route drainage to or from storm facilities as shown on the Drawings, or as necessary to maintain positive drainage.
5. Removal of temporary backfill placed in new utility trenches above the subgrade.
6. The removal and disposal of all undesirable and surplus materials.

G. Earth excavation may be completed as part of utility construction prior to initiating general street excavation activities.

H. All subgrade areas in streets and parking lots, including utility trench restoration areas, shall be proof-rolled with a heavily loaded triaxle dump truck or other similar equipment requested by ENGINEER prior to the placement of any fill materials or base course. ENGINEER must be present during proof-rolling to review the Work necessary for the stabilization of any unstable areas identified. Base course placed on unstable or yielding foundation or subgrade shall be removed and then replaced at CONTRACTOR's expense following excavation below subgrade of the affected area.

I. Saw cuts shall be made in existing pavement, driveways, curb and gutter, and sidewalks to allow restoration to neat straight lines. Saw cuts damaged during construction shall be recut prior to beginning restoration.

J. CONTRACTOR shall salvage suitable materials from utility and street construction activities to provide fill for street construction. Where sufficient quantities of materials suitable for street construction are not available from areas of the site, CONTRACTOR shall perform borrow excavation to make up the deficit in accordance with Section 204 of the Standard Specifications.

K. CONTRACTOR shall be responsible for making its own determination of the common excavation quantity when compiling the lump sum bid.

3.05 UTILITY TRENCH EXCAVATIONS

A. Caution In Excavation: CONTRACTOR shall proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures may be determined and shall be held responsible for the repair of such structures when broken or otherwise damaged because of carelessness on its part.

B. Subsurface Exploration: When determined that it is necessary to explore and excavate to determine the location of existing underground facilities, CONTRACTOR shall make explorations and excavations for such purposes. If CONTRACTOR is asked to perform additional Work in making the explorations and excavations, extra compensation will be allowed as specified In the General Conditions.

C. The trench shall be dug so that the utilities can be laid to the alignment and depth specified. Unless otherwise allowed by ENGINEER, trenches shall not be excavated more than 100 feet in advance of pipe laying. Trench excavation shall include all excavation except rock. Included in trench excavation shall be removal of street paving of all types, existing structures, existing improvements and trees smaller than 4 inches in diameter measured 4 feet above the ground, all as necessary to complete the pipe installation.

D. The trench shall be finished to the depth necessary to provide a uniform and continuous bearing and support for the pipe on the bedding material provided at every point between bell holes. Any part of the bottom of trench excavated below the specified grade shall be

corrected with bedding material, thoroughly compacted in place. The bedding shall be shaped and finished with hand tools to fit the bottom quadrant to the pipe.

E. If unstable soil conditions are encountered at subgrade, CONTRACTOR shall replace the unstable soil with special bedding. CONTRACTOR shall be allowed extra compensation for the special bedding, unless the unstable soil conditions are caused by CONTRACTOR's failure to adequately dewater the trench, in which case CONTRACTOR shall bear the entire cost.

F. All excavated material shall be piled in a manner that will not endanger the Work. Stockpiles not for immediate backfilling shall have silt fences placed around their perimeter for erosion control. The Work shall be conducted in such a manner that pedestrian and motor traffic is not unnecessarily disrupted. Fire hydrants, valve boxes and manholes shall be left unobstructed. Gutters shall be kept clear or other satisfactory provisions made for street drainage, and natural water courses shall not be obstructed.

G. Excavated material designated by ENGINEER as being undesirable for backfilling and all surplus excavated material shall be immediately removed as excavation progresses. All such material shall be disposed of in an environmentally safe manner in accordance with local, state, and federal regulations. No such materials shall be disposed of in wetlands, floodplains, or other environmentally sensitive areas. Disposal sites are also subject to approval of OWNER. All undesirable and surplus material disposed of must be leveled off and graded to rough elevations as determined by OWNER. Appropriate erosion control measures shall be provided and maintained at disposal sites until disposal is complete and the disposal site is permanently stabilized.

H. CONTRACTOR shall remove bituminous pavement and road surface as a part of the trench excavation. The width of pavement removed shall be the minimum possible, and acceptable, for convenient and safe installation of utilities and appurtenances.

I. All bituminous pavement shall be cut on neat, straight lines and shall not be damaged beyond the limits of the trench.

J. Where it is necessary to trench through concrete pavement, a strip shall be sawed and removed in such a manner as not to disturb the remainder of the pavement. Paving and undermining of existing concrete pavement shall be prevented by CONTRACTOR. If CONTRACTOR unnecessarily removes or damages pavement or surfaces beyond limits acceptable to ENGINEER, such pavement and surfaces shall be replaced or repaired at the expense of CONTRACTOR.

K. All trees, shrubs, and improved areas outside the excavation shall be protected from damage.

L. Pipe shall be placed only on dry foundations.

M. Excavation shall include all necessary incidental work such as tunneling, sheet piling, shoring, underpinning, pumping, bailing, transportation, and all fill and backfilling.

N. CONTRACTOR shall excavate whatever materials, are encountered as required to place at the elevations shown, all pipe, manholes, and other work as required to complete the project.

O. The excavation at the crossing of all underground utility services in place shall be as narrow as practicable. All underground services shall be protected from damage and maintained in

service at their original location and grade during the process of the work. Any damage to underground services shall be replaced or repaired at no cost to OWNER or to the owner of the service. The present underground services shown on the Drawings are located in accordance with available data. Encountering these services at a different location or encountering services not shown shall not release CONTRACTOR from the above-stated conditions

P. Any water, drainage, gas sewer, or electric lines encountered in the excavation that are not to be disturbed shall be properly underpinned and supported. Any service connections encountered that are to be removed shall be cut off at limits of the excavation and capped in accordance within the requirements of or permits governing such removals. Any permits required for this work will be obtained by OWNER upon request of CONTRACTOR.

Q. CONTRACTOR shall be responsible for determining and providing the minimum width necessary to provide a safe trench in accordance with current OSHA standards and all other applicable standards. The top width of trench excavation shall be kept as narrow as is reasonably possible and acceptable to minimize pavement damage. Pay items related to maximum trench widths shall not limit CONTRACTOR's responsibility to provide safe trench conditions.

R. Width of Trench–Rigid Pipe: The width of trench below the outside top of the pipe shall be as shown in the following table for the sizes listed. A minimum clearance of 8 inches between the outside of the pipe barrel and the trench wall at the pipe spring line shall be maintained to allow for bedding and haunching. If sheeting is used and is going to remain in place, the trench width shall be measured as the clear distance between inside faces of the sheeting. Otherwise, the trench width shall be based on the width between stable trench walls after sheeting is removed.

MAXIMUM WIDTH OF TRENCH BELOW TOP OF PIPE

Nominal Pipe Diameter (Inches)	Trench Width (Inches)
4	30
6	30
8	36
10	36
12	36
15	36
18 and larger	Outer diameter plus 18 inches on each side

S. Where the width of trench below the outside top of the pipe barrel cannot be otherwise maintained within the limits shown above, CONTRACTOR, at its own expense, shall furnish an adequate pipe installation for the actual trench width which will meet design conditions. This may be accomplished by furnishing higher class bedding, a stronger pipe, concrete cradle, cap or envelope or by driving sheeting prior to excavation to subgrade. Removal of sheeting below the top of the pipe, if allowed by ENGINEER, shall be gradual during backfilling.

T. If the maximum trench width is exceeded for any reason other than by request of ENGINEER, the concrete cradle, cap, sheeting, bedding or the stronger pipe shall be placed by CONTRACTOR at its own expense. Where the maximum trench width is exceeded at the

written request of ENGINEER, the concrete cradle, cap, sheeting, bedding or stronger pipe will be paid for on the basis of the price bid.

U. Width of Trench–Ductile Iron Pipe: The trench width for flexible pipe shall be minimum three times the pipe outside diameter or the maximum trench width specified for rigid pipe, whichever is greater. A minimum clearance of 8 inches between the outside of the pipe barrel and the trench wall at the pipe spring line shall be maintained to allow for bedding and haunching.

V. Special bedding shall consist of stone material and filter fabric as described herein. Where the bottom of the trench at subgrade is found to be unstable or of unsuitable material, which should be removed, CONTRACTOR shall excavate and remove such unstable or unsuitable material to the trench width and to a depth of 2 feet. The excavated area shall be lined with filter fabric, Mirafi 140 N, US Fabrics US 120NW, Propex Geotex 401, or equal, and backfilled with bedding material in maximum 12-inch layers. At subgrade the filter fabric shall be wrapped over the special bedding with an 18-inch overlap. Bedding material shall then be placed over the special bedding to support the piping. See Dewatering and Excavation to Subgrade sections for additional conditions.

W. If soil conditions require it, concrete cradle or encasement shall be placed around the pipe. Excavation shall be carried below the grade line to a depth requested by ENGINEER and concrete cradle or encasement placed. Before the concrete is placed, the pipe shall be laid to line and grade, blocked and braced, and the joint made. The cradle shall then be placed, taking care not to disturb the pipe. Concrete shall have a minimum 28-day compressive strength of 4,000 psi. Concrete cradle shall not be used for thermoplastic piping. See Trench Width section for additional conditions.

X. Open-cut trenches shall be sheeted and braced as required by any governing federal regulations including OSHA, state laws, and municipal ordinances; and as may be necessary to protect life, property, improvements or the Work. Underground or aboveground improvements to be left in place shall be protected and, if damaged, shall be repaired or replaced at the expense of CONTRACTOR.

Y. Sheeting and bracing which is to be left in place must be removed for a distance of 4 feet below the present or proposed final grade of the street, road, or land, whichever is lower. Trench bracing, except that which shall be left in place, may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal.

Z. Portable Trench Box: Whenever a portable trench box or shield is used, special precautions shall be taken so as not to pull already jointed pipe apart or leave voids around the pipe wall. Whenever possible, the bottom edge of the box shall be kept at a level approximately even with the top of pipe. Cover material shall be placed to at least the top of pipe before moving the box ahead.

AA. All trenches shall be backfilled using specified material so that excessive lengths of trench are not left open. In general, the backfilling operation shall proceed so that no more than 100 feet of trench is open behind the pipe laying operation.

BB. Backfill shall be left below the original surface to allow for placement of restoration materials including pavement, base course, concrete, topsoil, sod, plus any pavement replacement specified in accordance with the Asphaltic Paving section herein. When settlement occurs, CONTRACTOR shall restore the surface improvements at its expense to maintain the finished surface.

3.06 PREPARATION OF SUBGRADE

A. After the site has been cleared, stripped, and excavated to subgrade, thoroughly compact subgrade to the requirements specified for compacted fill below. Scarify and moisture condition the subgrade as recommended by the Project Soils Engineer.

B. Remove all ruts, hummocks, and other uneven surfaces by surface grading prior to placement of fill.

C. All slab-on-grade and road subgrades shall be proofrolled with a heavy rubber-tired construction vehicle (such as a fully loaded tandem-axle dump truck) in the presence of the Project Soils Engineer.

D. ENGINEER may request the excavation of unsuitable materials in areas of unstable subgrade. The excavation of such materials, except in areas where CONTRACTOR has completed utility construction or placed street fill, shall be measured by ENGINEER for payment.

E. The excavation and replacement of unstable utility trench backfill and/or street fill placed by CONTRACTOR shall be at CONTRACTOR's expense.

F. Base course placed on unstable foundation shall be removed and replaced at CONTRACTOR's cost following excavation of the affected area.

G. Where requested by ENGINEER in the field, excavation below subgrade areas shall be lined with geotextile material as specified in Section 31 32 19–Geotextiles and backfilled with 3-inch crushed stone dense graded base as specified herein.

H. Geotextile shall be placed where requested by ENGINEER to stabilize street subgrade areas. Fabric shall be as specified in Section 31 32 19–Geotextiles. Vibratory compaction shall not be used in the compaction of base course in areas where geotextile fabrics are used.

3.07 COMPACTED FILL AND BACKFILL

A. All fill and backfill, except as otherwise specified, shall be compacted fill placed to within 4 inches of the bottom of the topsoil or to the bottom of the structure or other improvement.

B. No fill shall be placed under water or over unsuitable subgrade conditions.

C. All fill and backfill, except embankment fill and clay fill, shall be compacted as follows:
   1. Class 1 Compaction: This class of compaction shall apply to all fill areas under buildings, structures, piping, bituminous roadway and parking areas, curb and gutter, and backfill within 10 feet of structure walls. All compacted material shall be placed in uniform layers not exceeding 8 inches in loose thickness prior to compaction. Each layer shall be uniformly compacted to a dry density at least 95% of the maximum dry density as determined by a laboratory compaction test at the optimum moisture content (ASTM Test Designation D1557). Compaction shall be obtained by compaction equipment appropriate for the conditions.
   2. Class 2 Compaction: This class of compaction shall be used in excavated areas beyond 10 feet of structures without any piping or adjacent foundations. Material for backfill shall be granular material as specified above. The material shall be deposited, spread, and

leveled in layers generally not exceeding 12 inches in thickness before compaction. Each layer of the fill shall be compacted to at least 90% of the maximum dry density (testing same as Class 1). Compaction shall be obtained by compaction equipment appropriate for the conditions.

D. No frozen material shall be placed nor shall any material be placed on frozen ground.

E. Four inches of clay fill shall be placed and compacted to at least a firm consistency in areas to be seeded or sodded prior to placement of topsoil.

3.08 CONCRETE FILL

A. In areas where there is inadequate room for compaction equipment and in other areas as shown or specified, flowable fill shall be used as fill material.

3.09 TOPSOIL STRIPPING AND STOCKPILING

A. Strip topsoil from areas to be built upon, cut or filled, or to have surface improvements, including roadways and walks.

B. Stockpile topsoil on site and protect from erosion.

C. Excess topsoil, if any, shall be removed from the site and disposed of at CONTRACTOR's expense.

D. CONTRACTOR shall provide additional topsoil as required.

3.10 PLACING CRUSHED STONE AND GEOTEXTILE FABRIC

A. The same day that the subgrade is exposed, place geotextile fabric on subgrade, and place 6 inches of crushed stone mat below manholes, inlets, catch basins, and valve vaults. Compact in place.

B. Geotechnical fabric shall extend up the side edge of the stone mat and extend across the top of the stone to a minimum of 12 inches past the edge of base slab.

3.11 PIPE BEDDING AND COVER

A. Immediately prior to placing the pipe, the trench bottom shall be shaped by hand to fit the entire bottom quadrant of the pipe. If pipe is of the bell and spigot type; bell holes shall be provided to prevent the bell from supporting the backfill load. Bell holes shall be large enough to permit proper making of the joint, but not larger than necessary to make the joint. All adjustments to line and grade must be done by scraping away or filling in bedding material under the body of the pipe. Any fill used must be bedding material. If necessary to obtain uniform contact of the pipe with the subgrade, a template shall be used to shape the bedding material. All pipe shall be placed on bedding material at least 4 inches thick. See Village of Oswego Standard Detail for Trench Badding/Backfilling. Bedding material shall then be placed and tamped into place up alongside the pipe in maximum 6-inch layers shovel slicing the bedding material under the haunches to provide firm contact with the pipe. CONTRACTOR shall perform all necessary excavation and shall furnish all necessary material to provide this bedding.

B. Trenches shall be kept water-free and dry during bedding, laying, and jointing. CONTRACTOR shall provide, operate, and maintain all pumps or other equipment necessary to drain and keep all excavation pits and trenches and the entire subgrade area free from water under any and all circumstances that may arise.

3.12 TRENCH BACKFILL CONSOLIDATION

A. All trenches shall be consolidated as specified in this section for the entire depth and width of the trench.

B. Consolidation shall be achieved by use of smooth surface vibratory compactors or backhoe operated hydraulic compactors for granular materials and rotating sheepsfoot type mechanisms for loam/clay soils. The lift height shall not exceed 8 inches for walk behind, hand operated, vibratory compactors and sheepsfoot. Lift height shall not exceed 24 inches for self-propelled vibratory drum or backhoe operated hydraulic compactors. Smaller lift heights shall be provided as necessary to achieve the degree of compaction specified.

C. Unless specified otherwise, backfill material beneath paved areas or future paved areas and within 5 feet of paved areas or future paved areas shall be consolidated as follows: Within 3 feet of the surface 95% of maximum dry density, below 3 feet from the surface to 1 foot above the pipe 90% of maximum dry density, as determined by the modified Proctor Test (ASTM D1557).

D. Unless otherwise specified, backfill material placed in all other areas shall be compacted to the point where no additional consolidation can be observed from the compaction and backfill equipment being used.

E. Backfill material not meeting the compaction specification shall be recompacted by CONTRACTOR at no cost to OWNER. Cost for additional testing on recompacted material shall be at CONTRACTOR's expense.

3.13 GRADING

A. CONTRACTOR shall perform all rough and finish grading required to attain the elevations shown on the Drawings.

B. Grading Tolerances:
   1. Rough Grade: Buildings, parking areas, and sidewalks–±0.1 feet.
   2. Finish Grade: Granular cushion or crushed stone mat under concrete slabs–±0.03 feet.
   3. Lawn areas away from buildings, parking areas, and sidewalks–±0.1 feet.

3.14 MAINTENANCE OF SURFACE

A. CONTRACTOR shall maintain all backfilling, resurfacing, repaving, and other surface improvements constructed under this Contract. CONTRACTOR shall, upon proper notice from OWNER, make all repairs in surfaces of trenches and excavations. All expenses incurred by OWNER and/or CONTRACTOR in making repairs and all expenses in maintaining trench and excavation surfaces shall be at the expense of CONTRACTOR regardless of the material used in backfilling trench excavations. OWNER reserves the right to make all emergency repairs necessary to make safe all streets and walks at the expense of CONTRACTOR regardless of the material used in backfilling trench excavations. A maintenance guarantee fund, if specified, will be withheld from the final amount due

CONTRACTOR for a period of 6 months, after acceptance of the Work, to provide such maintenance.

B. CONTRACTOR shall be responsible for controlling dust dispersion during utility and street construction. Remedial actions required as a result of inadequate dust control shall be CONTRACTOR's responsibility. To control dust, CONTRACTOR shall apply calcium chloride or ammonium lignin sulfonate in 12 to 14% solution or other dust control palliative acceptable to OWNER. Prior to application of dust palliative, the street shall be graded smooth.

3.15 COMPACTION TESTING

A. Compaction tests shall be done by CONTRACTOR and its costs shall be considered incidental to the Work..

3.16 POTENTIALLY HAZARDOUS WASTE

A. If CONTRACTOR encounters during excavation or trenching activities any potentially hazardous waste as defined in this section, and the materials are within the limits of the site excavation or trenching work, the materials shall be handled as specified in this section. Potentially hazardous waste is defined as any drums, containerized waste, or organic liquid waste or surrounding impacted material. Such materials have not been found during investigations performed to date but could potentially be encountered.

B. Should potentially hazardous waste be encountered, excavation activities in that portion of the site shall be placed on standby pending removal of the material, receipt of test results, and determination by the IEPA and OWNER on whether work may proceed. It is anticipated that this standby time will be approximately 48 hours per occurrence, exclusive of weekends and holidays.

C. Potentially hazardous waste defined above shall be carefully excavated, stockpiled, and tested to determine if they exhibit the characteristics of a hazardous waste as defined by the Title 35 Illinois Administrative Code, Parts 700 - 739. Such materials shall be handled according to applicable IEPA, USEPA, and OSHA regulations and shall be stockpiled in a “Temporary Excavated Material Storage Area” as specified in Division 01. Stockpiling shall meet the requirements of NR 700.

3.17 CLEAN CONSTRUCTION OR DEMOLITION DEBRIS

A. CONTRACTOR shall comply with 35 III. Adm. Code 1100 when disposing of clean construction or demolition debris (CCDD) or uncontaminated soil at a CCDD or uncontaminated soil fill operation.

B. None of the Drawings, Specifications, or geotechnical reports shall be considered a guarantee that excavated material shall meet the requirements of 35 III. Adm. Code 1100, and CONTRACTOR shall be responsible for satisfactory removal and disposal of all material as specified herein. No additional environmental testing of the existing on-site material may be performed without the written permission of OWNER, CONTRACTOR shall be required to properly and legally dispose of all material from the project site, regardless of its suitability for disposal in a CCDD facility, at CONTRACTOR’S expense, without any additional payment for testing, hauling, and disposal as specified below.

C. CONTRACTOR shall consult at least three CCDD facilities for confirmation of acceptance of material from this project prior to submitting a bid for this project. CONTRACTOR shall base its bid on hauling all CCDD generated by this project and shall provide the name, location, and contact information of intended facilities to OWNER upon award of Contract to CONTRACTOR. No additional compensation will be allowed for hauling to any other facilities, for any reason, unless none of the indicated facilities will accept the material. In the case where none of CONTRACTOR's indicated facilities will accept the material, CONTRACTOR shall attempt to locate an alternate facility, unless the material is classified as unsuitable for disposal in a CCDD facility, in which case it shall be hauled to a landfill and paid for as specified below. Any costs associated with additional sampling, analysis, and/or reporting to meet the acceptance requirements of an intended facility shall be borne by the bidding CONTRACTOR and included within CONTRACTOR's bid. By submitting a bid, CONTRACTOR agrees that the intended facilities will accept the material and shall be used for disposal of all CCDD from this project, unless otherwise determined to be non-hazardous special waste as specified below. In the event that CONTRACTOR needs to alter the CCDD facility used for placement of excavated material, CONTRACTOR shall notify OWNER no less than three days in advance of the planned alteration. In no event shall material be hauled to an alternate facility without the written permission of OWNER.

D. Construction Requirements:
   1. CONTRACTOR shall be responsible for satisfactory removal and disposal of all waste material, asphalt, concrete, stone, dirt, and debris generated or discovered in the course of the work. Removal and disposal of excavation items being disposed of at a CCDD facility shall meet the requirement of 35 III. Adm. Code 1100. This work shall be incidental and shall not be paid for separately, with the exception of the NON-CCDD MATERIAL DISPOSAL as specified below.
   2. If material is rejected at the CCDD facility, it shall be returned to the project site and quarantined for further evaluation. No additional compensation shall be allowed for returning a reject load back to the project site or for any other additional hauling, loading, unloading, etc. as may be required. Should it be determined that the material is not suitable for disposal in a CCDD facility, CONTRACTOR shall be responsible for properly disposing of the material at an acceptable landfill and providing OWNER with all the proper paperwork to document the material disposal with the IEPA. This work shall be paid for as specified below.
   3. All work to satisfy these requirements shall be the responsibility of CONTRACTOR. All costs associated with meeting these requirements shall be included in CONTRACTOR's bid for installation of the associated pipe or structure, These costs shall include, but are not limited to, all required testing, lab analysis, and certification by a licensed professional engineer (PE) or licensed professional geologist (PG), if required, in addition to the cost of additional hauling, dump fees, etc.
   4. CONTRACTOR shall INCLUDE in its Bid the cost of removing, hauling, and disposing of in a licensed landfill 20 cubic yards of excavated solid waste fill material not suitable for disposal in a CCDD facility. The cost shall include excavation, any testing required by the landfill, transportation, additional safety considerations, and disposal fees. Payment for non-CCDD material excavation and disposal will be adjusted, add or deduct, based upon the actual amount of fill material excavation and disposal (more or less than 20 cubic yards) at the unit price for REMOVAL AND DISPOSAL OF NON-CCDD MATERIAL.

5. Landfill tonnage shall be based on weight tickets. Copies of all weight tickets for landfilled material shall be provided to OWNER for documentation purposed to calculate actual quantities. Weight tickets shall be duly and accurately completed. Weight tickets with incomplete or illegible information shall not be acceptable.

END OF SECTION

SECTION 31 23 16.26

ROCK REMOVAL

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: Removal of rock during excavation for utility trenches.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. Payment: Rock excavation shall be paid for at the Contract unit price bid per cubic yard in accordance with Section 202 of the Standard Specifications.

D. Measurement:
1. In calculating the volume of excavation in rock for utility trenches the amount allowed will not exceed the volume in a width equal to the specified trench width for the pipe and height equal to the average depth from the surface of the rock to a point 6 inches below the outside bottom of the pipe.
2. In calculating the length of utility trenches when the length method of measurement is specified, the measured length of trench will be the lengths of pipe installed, minus the width of overlapping trenches.
3. When rock is encountered, it shall be stripped of earth and ENGINEER notified and given proper time to measure the same before removal. Any rock which has been removed prior to measurement by ENGINEER will not be classified as rock excavation.
4. The above paragraphs list the methodology for determining the payable quantity of rock removed. It is CONTRACTOR's responsibility to remove the quantity of rock needed to result in a trench that meets OSHA's requirements.

1.02 REFERENCES

A. Standard Specifications: Unless otherwise specified, Standard Specifications shall refer to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.03 DEFINITIONS

A. Rock excavation for structures, roads, and utility trenches shall include all hard, solid rock ledges, bedded deposits and unstratified masses, and all conglomerate deposits or any other material so firmly cemented that it is not practical to excavate and remove same with a 270-net flywheel horsepower tractor (Caterpillar D-8 with power shift, or equal) equipped with dozer blade and hydraulic-mounted parallelogram ripper; 225-net flywheel horsepower hydraulic backhoe, or equal, except after continuous drilling and blasting. No soft or disintegrated rock which can be removed with a pick; no loose, shaken, or previously broken rock; and no rock which may fall into the excavation from outside the limits of excavation will be classified as rock excavation. Rock excavation shall also include all rock boulders necessary to be removed having a volume of one cubic yard or more.

1.04 QUALITY ASSURANCE

A. OWNER has determined that explosives may not be employed in rock removal.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 ROCK REMOVAL

A. When rock is encountered, it shall be stripped of earth and ENGINEER or OWNER's representative notified and given proper time to evaluate same before removal. Any rock removed which has not been measured by ENGINEER or OWNER's representative will not be classified as rock excavation.

B. Disintegrate rock and remove from excavation.

C. Remove rock at excavation bottom to form level bearing surface.

D. The depth of trench in rock shall be 6 inches below the lowest outside bottom of the pipe.

E. Rock excavation for streets shall include removal of rock to subgrade elevations.

F. Rock shall be removed 2 feet below finish grade in areas to receive seed, sod, or trees.

G. Remove shaled layers to provide a sound and unshattered base for foundations.

H. Unauthorized rock removal shall be corrected in accordance with backfilling and compacting requirements of Section 31 23 00–Excavation, Fill, Backfill, and Grading or with concrete fill.

I. All excavated rock shall be classified as undesirable backfill material and shall be disposed of as specified in Section 31 23 00–Excavation, Fill, Backfill, and Grading, unless it is crushed and screened to meet backfill requirements for use on-site.

J. All excavations and trenches in rock shall be backfilled with approved backfill materials furnished by CONTRACTOR. Costs for such materials shall be included in the price bid for rock excavation.

END OF SECTION

SECTION 31 23 19

DEWATERING

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Removal of groundwater to allow belowgrade construction.
   2. Site grading to prevent surface water from entering the excavation.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. Payment:
   1. The expense for making all extra excavations necessary to prevent water from interfering with the proper construction of the work and for forming all dams or diversions, digging of sumps or pump wells, bailing, and installation and pumping of wells shall be borne by CONTRACTOR.
   2. The cost for removal of groundwater and surface water shall be included in the prices bid for the work. No separate payment will be made for dewatering whether accomplished by use of sumps and pumps, well point systems, deep wells, or any other method.
   3. Any permits necessary for the dewatering operations shall be obtained and paid for by CONTRACTOR.

1.02 REFERENCES

A. Illinois Urban Manual.

B. See Division 01, Section 01 41 00–Regulatory Requirements for permit requirements and water, erosion, and sediment control.

1.03 SYSTEM REQUIREMENTS

A. CONTRACTOR shall, at its own expense, keep the excavation clear of water while structures, mains, and appurtenances are being built, utilities are being installed, and fill and backfill are being compacted. Under no conditions shall the work be laid in or under water. No water shall flow over the work until the joints are complete or the concrete has set.

B. Wherever necessary, CONTRACTOR shall excavate in advance of the completed work, lead the water into sumps or pump wells, and provide erosion control measures to prevent water or sediment damage.

C. CONTRACTOR’s dewatering system shall perform so that the soils within the trench will not be destabilized by hydrostatic uplift pressures from adjacent groundwater. If conditions warrant, CONTRACTOR shall furnish and install well point systems or deep wells.

D. Dewatering shall be sufficient to lower the piezometric level to at least 2 feet below the bottom of the excavation. Additional lowering shall be provided as necessary to create a stable subgrade.

E. In areas where rock is encountered, the water level shall be kept at or below top of rock, but at least 6 inches below bottom of concrete. Additional rock shall be removed as needed to provide clearances.

F. The control of groundwater shall be such that softening or heaving of the bottom of excavations or formation of “quick” conditions or “boils” shall be prevented.

G. Dewatering systems shall be designed and operated so as to prevent the migration or removal of soils.

1.04 QUALITY ASSURANCE

A. All dewatering shall be done in accordance with Illinois Urban Manual Code 813 and with all other applicable federal, state, and local code requirements.

B. In particular, groundwater observation wells shall be provided and subsequently abandoned in accordance with the Illinois Urban Manual Code 996. CONTRACTOR shall complete all observation well construction and abandonment forms as required and shall submit the forms to OWNER within 15 days of construction or abandonment activities.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 DEWATERING

A. Dewatering shall be started, and the water level shall be lowered as specified herein prior to beginning excavation and shall be continued until structure, main, or appurtenance has been completed and fill has been placed and compacted to final grade.

B. CONTRACTOR shall provide all necessary materials and equipment to keep the excavation free from water during construction. CONTRACTOR shall at all times have on hand sufficient pumping equipment and machinery in good working condition for all ordinary emergencies, including power outages, and shall have available at all times competent workers for the operation of the pumping equipment. The dewatering systems shall not be shut down between shifts, on holidays or weekends, or during the work stoppages.

C. CONTRACTOR shall meet all requirements of applicable IEPA permits for construction pit or trench dewatering.

D. The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted fill or backfill, and prevent floatation or movement of all structures and pipelines.

3.02 PROTECTION

A. CONTRACTOR shall take all necessary precautions during the dewatering operation to protect adjacent structures against subsidence, flooding, or other damage. The dewatering system shall be installed and operated so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property. Any such facilities and structures damaged shall be repaired or replaced to the satisfaction of their owner.

B. In areas where continuous operation of dewatering pumps is required, CONTRACTOR shall avoid noise disturbance to nearby residences to the greatest extent possible by using electric-driven pumps, or intake and exhaust silencers or housing to minimize noise from engine-driven generators or engine-driven pumps.

END OF SECTION

SECTION 31 25 00

SLOPE PROTECTION AND EROSION CONTROL

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: Erosion control devices.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 PAYMENT

A. Inlet Filters shall be paid for at the Contract unit price per each, in accordance with Section 280 of the Standard Specifications.

B. Silt Fence shall be paid for at the Contract unit price per linear foot, in accordance with Section 280 of the Standard Specifications for Perimeter Erosion Barrier.

C. Erosion Control Blanket shall be included in the cost for seed restoration.

D. All costs associated with slope protection and erosion control shall be included in CONTRACTOR's Bid. This work shall include, but is not limited to, excavation, placing posts, backfilling, attaching woven wire and geotextile fabric; cleaning and repairing; replacing silt fence and damages caused by overloading of sediment material or ponding of water adjacent to silt fence; and furnishing labor, tools, equipment, and incidentals necessary to complete the work in accordance with the Contract.

1.03 REFERENCES

A. Illinois Urban Manual published by the Natural Resources Conservation Service (NRCS) in Illinois (http://www.nrcs.usda.gov).

B. Standard Specifications: Unless otherwise specified, Standard Specifications shall refer to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.04 REGULATORY REQUIREMENTS

A. Land disturbance less than 1 acre. Where land disturbance activities do not exceed 1 acre, CONTRACTOR shall maintain site conditions where erosion and pollution are controlled.

B. CONTRACTOR shall pay any fines or other fees resulting from failure of CONTRACTOR to comply with federal, state, or local regulations and requirements.

1.05 QUALITY CONTROL

A. Construct and maintain erosion sediment control measures in accordance with the Illinois Urban Manual.

B. Check facilities weekly and after any rainfall event, and make needed repairs within 24 hours.

PART 2–PRODUCTS

2.01 EROSION CONTROL BLANKET

A. Erosion control blankets shall not contain plastic netting or anchors. Erosion control blankets shall be BioD-Mat 70, or equal.

2.02 SILT FENCE

A. Use geotextile fabric consisting of either woven or nonwoven polyester, polypropylene, polyethylene, or polyvinylidene chloride meeting the requirements of the Illinois Urban Manual. Fabric shall have the minimum strength values in the weakest principal direction. Nonwoven fabric may be needle punched, heat bonded, resin bonded, or combination thereof.

B. Furnish geotextile fabric in a wrapping which will protect the fabric from ultraviolet radiation and from abrasion because of shipping and handling. Keep geotextile dry until installed.

2.03 GEOTEXTILE FABRIC

A. See Section 31 32 19–Geotextiles for fabric under riprap.

2.04 INLET FILTERS

A. Inlet filters shall meet the requirements of Article 1081.15 of the Standard Specifications. Inlet filters shall be Flexstorm, or equal.

PART 3–EXECUTION

3.01 GENERAL

A. Install devices before construction activities begin as shown on the Drawings and as requested by OWNER or ENGINEER.

B. Proceed carefully with construction adjacent to stream channels to avoid washing, sloughing, or deposition of materials into the stream. If possible, the work area should be diked off and the volume and velocity of water that crosses disturbed areas be reduced by means of planned engineering works (diversion, detention basins, berms).

C. Unless noted on Drawings, do not remove trees and surface vegetation.

D. Expose the smallest practical area of soil at any given time through construction scheduling. Make the duration of such exposure before application of temporary erosion control measures or final revegetation as short as practicable.

3.02 EROSION CONTROL INSTALLATION

A. Place erosion control blanket immediately after seeding or sodding operations have been completed. Before control blanket placement, remove all material or clods over 1 1/2 inches in diameter and all organic material or other foreign material which interfere with the control blanket bearing completely on the soil or sod.

B. Any small stones or clods which prevent contact of the control blanket with the soil shall be pressed in the soil with a small lawn-type roller or by other effective means. The control blanket shall have its lateral edge so impressed in the soil as to permit runoff water to flow over it.

C. The matting strips shall be rolled on or laid in direction of flow. Spread control blanket evenly, smoothly, in a natural position without stretching and with all parts bearing on soil, and place blanket with netting on top. Overlap adjacent strips at least 4 inches. Overlap strip ends at least 10 inches. Make overlaps with the upgrade section on top.

D. Bury upgrade end of each strip of fabric or blanket at least 6 inches in a vertical slot cut in the soil and press soil firmly against the embedded fabric or blanket.

E. Anchor mats in place with vertically driven staples, driven until their tops are flush with the soil. Space staples at 3-foot centers along mat edges and stagger space at 3-foot centers through the center. Place staples at 10-inch centers at end or junction slots.

F. Reseed areas damaged or destroyed during erosion mat placing operations as specified for original seeding.

G. Dispose of surplus excavated materials and all stones, clods, or other foreign material removed in the preparation of the seeded soil or sodded surface before placing mat.

H. Following control blanket placement, uniformly apply water to the area to moisten seedbed to 2-inch depth and in a manner to avoid erosion.

I. Maintain erosion control blanket and make satisfactory repairs of damage from erosion, traffic, fires or other causes until work acceptance.

3.03 GEOTEXTILE FABRIC

A. Before placing fabric, grade area smooth and remove stones, organic matter, or other foreign material which would interfere with fabric being completely in contact with soil.

B. Place fabric loosely and lay parallel to direction of water movement. Pinning or stapling is acceptable to hold geotextile in place. Overlap or sew together separate pieces of fabric. Overlap joints a minimum 24 inches in the flow direction. After placement, do not expose fabric more than 48 hours before covering.

C. Cover damaged areas with a patch of fabric using a 3-foot overlap in all directions.

3.04 SILT FENCE INSTALLATION

A. Erect silt fence before starting construction operations which might cause sedimentation or siltation at site of proposed silt fence.

B. Construct silt fence in an arc or horseshoe shape with ends pointing up slope. Construct silt fence to the dimensions and details shown on Drawings. Remove silt fences after slopes and ditches have been stabilized and turf developed to the extent that future erosion is unlikely. Dispose of materials remaining after removal.

C. Inspect all silt fences immediately after each rainfall and at least daily. Correct deficiencies immediately. Where construction activity changes the earth contour and drainage runoff, make a daily review so that silt fences are properly located for effectiveness. Where deficiencies exist, install additional silt fences.

D. Remove and dispose of sediment deposits. Sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform with the existing grade and the area topsoiled, fertilized, and seeded as required.

END OF SECTION

SECTION 31 32 19

GEOTEXTILES

PART 1–GENERAL

1.01 SUMMARY

A. Work Included: Geotextiles for areas below base course, below riprap, and as shown on the Drawings or as required in the Specifications.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. Measurement and Payment: Geotextiles shall be measured and paid for as Filter Fabric at the Contract unit bid per square yard, in accordance with Section 282 of the Standard Specifications.

1.02 REFERENCES

A. Standard Specifications: Unless otherwise indicated, Standard Specifications within this section shall refer to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

PART 2–PRODUCTS

2.01 MATERIALS

A. Geotextile below riprap shall be Mirafi 180N, or equal.

B. Geotextile below base course shall be Mirafi 600X, or equal.

PART 3–EXECUTION

3.01 INSTALLATION

A. Geotextile shall be installed in accordance with manufacturer’s recommendations.

B. Geotextile shall be lapped a minimum of 18 inches.

C. If extensive areas of unstable subgrade are encountered on street areas, ENGINEER may request the furnishing and installation of construction fabric to obtain the necessary subgrade support for the roadway structure. Vibratory compaction shall not be used in the compaction of base course in areas where construction fabrics are used.

D. CONTRACTOR shall protect the construction fabric from exposure to the sun until installation. Construction fabric shall be covered with stone or soil immediately upon placement.

END OF SECTION

SECTION 32 11 23

AGGREGATE BASE COURSE

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Aggregate base course for roads and parking areas.
   2. Gravel roads.
   3. Temporary surface over trench.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. CONTRACTOR is cautioned that existing private and public roads and shoulders may not hold up to typical construction traffic or activities. CONTRACTOR shall repair all roads, shoulders, and gravel areas damaged in accordance with this section. All paved areas shall also be repaired in accordance with Section 32 11 26–Hot Mix Asphalt Paving.

1.02 MEASUREMENT AND PAYMENT

A. The cost of providing and installing aggregate base course underneath permanent-type pavement, sidewalk, driveways, curbs, gutters, and structures shall be included for the respective item and will not be paid for separately.

B. The cost of providing and maintaining the temporary surface over trench shall be considered incidental to the cost of the pipe being installed and shall not be measured for payment.

C. Gravel driveway replacement shall be measured and paid for at the contract unit price bid per square yard.

D. Repair or replacement of aggregate base course shall be considered incidental and included in the price Bid.

1.03 REFERENCES

A. Standard Specifications: Unless otherwise indicated, Standard Specifications shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.04 DEFINITIONS

A. Street or road shall include streets, roads, driveways, and parking lots.

1.05 SUBMITTALS

A. Submit sieve analysis for proposed materials in accordance with Section 01 33 00–Submittals.

1.06 DRAINAGE DURING CONSTRUCTION

A. CONTRACTOR shall comply with the provisions of Article 280 of the Standard Specifications.

PART 2–PRODUCTS

2.01 AGGREGATES

A. Aggregate for base course shall consist of crushed stone and shall meet the requirements of Article 351 of the Standard Specifications. The material furnished shall be uniformly graded and shall conform to ASTM C33.

B. Base course shall be uniformly graded and shall conform to the requirements of No. CA-6.

C. Material for top layer of shoulders shall meet the requirements of No. CA-4.

D. Temporary surface over trench shall be gradation CA-6 meeting the requirements of the Standard Specifications.

E. Gravel driveways shall be gradation CA-6 meeting the requirements of the Standard Specifications.

PART 3–EXECUTION

3.01 PREPARATION

A. The subgrade shall be graded and rolled to provide uniform density and shall comply with the profile and cross sections contained in the Drawings. All street subgrade in cut areas and all areas to receive fill shall be proof-rolled in the presence of OWNER or ENGINEER with a heavily loaded triaxle dump truck or similar equipment prior to the placement of any fill materials or base course. The subgrade shall be prepared in accordance with Article 301 of the Standard Specifications.

3.02 CONSTRUCTION

A. Base course grade shall be set to allow placement of thickness of asphaltic pavement shown or specified.

B. Depth of base course shall be provided according to the standard cross sections or details provided on the Drawings.

C. Depth of base course shall be the existing depth or 9 inches, whichever is greater.

D. Base course shall be placed directly on subgrade areas or on top of salvaged asphalt millings unless otherwise indicated on the Drawings.

E. Each layer of base course shall be wetted and rolled to provide maximum compaction in accordance with Article 351.05 of the Standard Specifications.

F. The finished base course shall be fine graded in preparation for paving.

G. After final grading, CONTRACTOR shall maintain the base course until asphaltic paving work has been completed.

H. All gravel surfaces damaged during construction shall be replaced. The depth of aggregate shall match existing or 8 inches, whichever is greater.

I. Temporary surface over trench shall be constructed in accordance with the Standard Specifications.

END OF SECTION

SECTION 32 11 26

HOT MIX ASPHALT PAVING

PART 1–GENERAL

1.01 SUMMARY

A. Work includes Hot Mix Asphalt (HMA) paving, pavement patching, prime coat, and casting adjustments.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

C. CONTRACTOR is cautioned that existing private and public roads and shoulders may not hold up to typical construction traffic or activities. CONTRACTOR shall replace all roads, shoulders, and paved areas damaged during the project in accordance with this section. Gravel shoulders, gravel roads, and parking areas shall be repaired in accordance with Section 32 11 23–Aggregate Base Course.

1.02 MEASUREMENT AND PAYMENT

A. Hot-Mix Asphalt Surface Course shall be paid for at the Contract unit price per ton. Bituminous Materials (Tack Coat) shall be paid for separately at the Contract unit price per pound.

B. Pavement Patches, of the thickness and type specified, shall be paid for at the Contract unit price bid per square yard, in accordance with Section 442 of the Standard Specifications. Sawcuts, Bituminous Materials (Tack Coat), and Bituminous Materials (Prime Coat) shall be included in the cost of the patches.

C. Payment for HMA driveway replacement shall be at the unit price per square yard, in accordance with Section 442 of the Standard Specifications.

1.03 REFERENCES

A. Standard Specifications: Unless otherwise indicated, Standard Specifications shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.04 DEFINITIONS

A. Street or road shall include streets, roads, driveways, and parking lots.

1.05 SUBMITTALS

A. Prior to the commencement of paving, mix designs and aggregate sieve analysis shall be submitted to ENGINEER for approval in accordance with Section 01 33 00–Submittals.

PART 2–PRODUCTS

2.01 HMA PAVEMENT

A. HMA surface course shall be Mix “D,” N50, with a mix type of IL 9.5 mm and percent air voids of 4% at 50 gyrations. HMA binder course shall be IL 19.0 mm, N50, with percent air voids of 4% at 50 gyrations. HMA binder shall have a PG binder grade of PG 64-28. HMA surface course shall have a PG binder grade of SBS-PG-76-28.

B. Aggregate shall conform to the requirements of Article 406.02 of the Standard Specifications.

C. Where existing pavement is replaced, minimum pavement thickness shall be 6 inches or existing thickness, whichever is greater. Lower layer shall be 4 1/2 inches minimum. Upper layer shall be 1 1/2 inches minimum.

D. Materials for prime coat shall conform to the requirements of Article 406.02.

E. Pavement markings shall conform to Section 32 17 23.13–Pavement Markings and Section 780 of the Standard Specifications.

2.02 PAVEMENT PATCHES

A. Class D pavement patches shall conform to the requirements of Section 442 of the Standard Specifications.

PART 3–EXECUTION

3.01 ALLOWABLE REMOVAL OF PAVEMENT

A. CONTRACTOR shall remove asphalt pavement and road surface as a part of the general excavation. The width of pavement removed shall be the minimum possible and acceptable for convenient and safe installation of structures, utilities, and appurtenances.

B. All asphalt pavement shall be cut on neat, straight lines and shall not be damaged beyond the limits of the excavation. Should the cut edge be damaged, a new cut shall be made in neat, straight lines parallel to the original cut encompassing all damaged areas. Pavement removal shall be extended to a seam or joint if seam or joint is within 3 feet of damaged pavement.

3.02 CASTING ADJUSTMENTS

A. All new and existing manhole castings and valve boxes within the paving limits of the street, which require adjustment, shall be adjusted to match the finished asphaltic surface. Adjustments shall not be made greater than 48 hours prior to the anticipated time of paving. Adjustments shall be performed as called for in Section 33 00 10–Buried Piping and Appurtenances. CONTRACTOR shall furnish Class 1 barricades with flashers on all adjusted castings until paving has been completed. Tops of castings and valve boxes shall be oiled or protected by other methods to prevent sealing of lids and filling of lift holes during paving. Upon completion of paving operations, CONTRACTOR shall check all castings and valve boxes to see that the lids are clean and operational. Manhole casting adjustment shall

be included in the cost of other items of work, and no further compensation will be made. Valve box adjustment shall be considered an incidental item of work.

3.03 BITUMINOUS MATERIALS (TACK COAT AND PRIME COAT)

A. All work shall be in accordance with the Standard Specifications, Article 406.05.

B. If hot mix asphalt surface course is applied to an existing street or is not applied the same day as binder course, the existing street or binder surface shall be tack coated prior to surface paving. Prior to placement of tack coat, the streets shall be thoroughly cleaned and broomed according to Section 358 of the Standard Specifications. Tack coat shall be applied at a rate of 0.05 pounds per square foot.

C. In situations where traffic must be maintained, tack coat shall not be placed on the traveled half of the street until traffic can be switched to the new pavement.

D. Aggregate bases shall have a layer of prime coat applied prior to paving the binder course. The prime coat shall be applied at the rate of 0.25 pounds per square foot.

3.04 JOINTS

A. Joints between old and new pavements or between successive day's work shall be constructed and treated to provide a thorough and continuous bond between the old and new mixtures. Transverse construction joints shall be constructed by cutting the material back for its full depth to expose the full depth of the course. Where a header is used, the cutting may be omitted provided the joint conforms to the specified thickness. These joints shall be treated with prime coat material applied with a hose and spray nozzle attachment to fully coat the joint surface.

B. The longitudinal joint shall be made by overlapping the screed on the previously laid material for a width of not more than 2 inches and depositing a sufficient amount of asphaltic mixture so that the finished joint will be smooth and tight. Longitudinal joints in the surface course shall at no time be placed immediately over similar joints in the binder course beneath. A minimum distance of 12 inches shall be permitted between the location of the joints in the binder course and the location of similar joints in the surface course above.

C. All costs for furnishing and applying prime coat to butt joints as specified above shall be considered incidental.

3.05 FINISHING ROADWAY

A. The finished base course shall be fine-graded in preparation for HMA paving. Base course ramps at all existing pavement shall be removed to provide a full depth butt joint. Base course around manhole castings and valve boxes shall be hand-trimmed and compacted with a vibratory plate compactor.

B. This item shall include all of the following preparatory and finishing items and any other incidental items of work required for construction. Asphaltic ramps around manholes on existing binder course to receive surface course shall be removed. Asphaltic ramps shall be installed on all manholes and at all butt joints in areas to receive binder course only.

C. Finishing roadway shall be considered incidental to HMA paving.

D. Paint all markings as shown on Drawings with lines not less than 4 inches wide.

3.06 TESTING HOT MIX ASPHALT

A. ENGINEER may require samples of HMA pavement for testing. CONTRACTOR shall cut samples from the finished pavement where marked by ENGINEER and patch the sample area. Samples for sieve analysis and asphalt content will be taken by ENGINEER prior to placement.

3.07 HOT MIX ASPHALT PAVING

A. HMA paving work shall include the construction of plant-mixed hot mix asphalt pavement in the areas shown on the Drawings. All work shall be performed in accordance with Section 406 of the Standard Specifications.

B. Prior to commencement of paving operations, CONTRACTOR shall examine the finished road bed. CONTRACTOR shall notify ENGINEER of any areas of suspected instability.

C. The pavement structure for streets, roadway, and parking lot construction shall be determined from the standard cross sections provided on the Drawings.

3.08 PAVEMENT PATCHING

A. All pavement patching shall conform to the requirements of Section 442 of the Standard Specifications.

B. Pavement patches located outside of the resurfacing limits as shown on the Drawings shall consist of 4 1/2 inches of HMA Binder Course and 1 1/2 inches of HMA Surface Course meeting the requirements specified herein.

C. Pavement patches located within the resurfacing limits as shown on the Drawings shall consist of 4 1/2 inches of HMA Binder Course meeting the requirements specified herein.

END OF SECTION

SECTION 32 16 13

CONCRETE CURB AND GUTTER, SIDEWALKS, AND DRIVEWAY APRONS

PART 1–GENERAL

1.01 SUMMARY

A. Work includes concrete curb and gutter, sidewalks, detectable warnings, driveways, and base course foundation for sidewalks, driveways, and driveway aprons as shown on the drawings.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 MEASUREMENT AND PAYMENT

A. Curb or Combination Curb and Gutter Remove and Replace shall be paid for at the Contract unit price per linear foot, in accordance with Section 606 of the Standard Specifications.

B. Portland Cement Concrete Sidewalk, of the thickness specified, shall be paid for at the Contract unit price per square foot, in accordance with Section 424 of the Standard Specifications. Cost shall include aggregate base course.

C. Detectable Warnings shall be paid for at the Contract unit price per square foot, in accordance with Section 424 of the Standard Specifications.

D. Portland Cement Concrete Driveway Pavement, of the thickness specified, shall be paid for at the Contract unit price per square yard, in accordance with Section 423 of the Standard Specifications.

E. Brick Paver Shoulder Remove and Reinstall shall be paid for at the Contract unit price per square foot. Cost shall include aggregate base course.

1.03 REFERENCES

A. Standard Specifications: Unless otherwise indicated, Standard Specifications shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

B. AASHTO M148 Standard Specifications for Liquid Membrane–Forming Compounds for Curing Concrete.

1.04 QUALITY ASSURANCE

A. Unless otherwise specified, all curb and gutter, sidewalks, detectable warnings, and driveway apron construction shall meet the requirements of the Standard Specifications.

PART 2–PRODUCTS

2.01 CONCRETE

A. All concrete shall conform to Section 1020 of the Standard Specifications, Class SI air entrained.

2.02 CURING COMPOUND

A. Liquid curing compounds shall conform to the requirements of the Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete, AASHTO Designation M148, Type 2, White Pigmented.

2.03 DETECTABLE WARNINGS

A. Detectable warnings shall be red in color and meet the requirements of ASTM C1028-Slip Resistance and ASTM G155-Accelerated Weathering.

B. Detectable warnings shall be Detectile Corporation Duratek Tile, TufTile, Inc. High-Impact Polymer Wet-Set Tile, or Armor-Tile Replaceable Cast-In Place System.

PART 3–EXECUTION

3.01 BASE PREPARATION–CURB AND GUTTER

A. The base course beneath the curb and gutter shall be trimmed or filled as necessary to provide a full depth of curb and gutter as detailed in the Village of Oswego Standard Details. Prior to placement of concrete, the base shall be thoroughly compacted and moistened.

3.02 BASE PREPARATION–SIDEWALKS AND DRIVEWAYS

A. The subgrade shall be thoroughly compacted and finished to a trim, firm surface. All soft or unsuitable material shall be removed and replaced with suitable material.

B. A minimum 4-inch-thick layer of aggregate base course, Type B, shall be placed under all sidewalks. This material shall be thoroughly moistened and compacted before the concrete is placed.

C. Portland cement concrete driveway pavement base shall be 4-inch aggregate base course, in accordance with Oswego Standard Details.

3.03 FORMS

A. Forms shall be of metal or wood and of sufficient strength to resist distortion or displacement. Metal or wood forms shall be used to construct a curb and gutter cross section as shown on the Village of Oswego Standard Details. Forms shall be full depth of the required work. Facing boards, if used, shall be built so as to obtain the cross section called for on the Drawings. Forms shall be securely staked and held firmly to line and grade. Forms shall be cleaned thoroughly and oiled before reuse.

B. All curved curb and gutter shall form smooth curves and shall not be a series of chords. Radius forms shall be used for all curved curb and gutter where the radius of curvature is 100 linear feet or less.

3.04 PLACING AND FINISHING CONCRETE

A. Unless otherwise specified, concrete shall be placed in accordance with the Standard Specifications.

B. Concrete shall be thoroughly tamped to remove all voids. The exposed surfaces of the curb and gutter shall be thoroughly troweled and finished with a brush at right angles to the line of the curb and gutter. The back edge of the curb, the edge of the gutter adjacent to the pavements, and edges adjacent to expansion joints shall be rounded with a 1/4-inch-radius edger. Honeycombed areas along the back of the curb shall be pointed with mortar.

C. Before final finishing of curb and gutter, a 10-foot straight edge shall be used to check the surface. Any areas showing a variation of more than 1/4 inch from the straight edge shall be corrected. Final finishing shall be delayed a sufficient time so that excess water and grout will not be brought to the surface.

D. Concrete for sidewalk shall be placed to a minimum thickness of 5 inches, except at driveways and alleys, which shall have a minimum thickness of 6 inches. Driveways shall have a minimum thickness of 6 inches. The concrete shall be thoroughly spaded and tamped to remove all voids. The surface of the driveway or sidewalk shall be thoroughly troweled and finished with a brush at right angles to the driveways or sidewalk line.

3.05 MACHINE-FORMED CURB AND GUTTER

A. CONTRACTOR may elect to use a machine for placing, forming, and consolidating concrete curb and gutter. If a machine is used, the resulting curb and gutter shall be of such a quality as to equal or exceed that produced by the method described above.

3.06 REJECT SECTIONS

A. At locations shown on the Drawings, the curb and gutter shall be warped so as to reject the flow of water. The transition from a standard section to a reject section shall not be abrupt but shall be a minimum of 10 feet in length.

3.07 JOINTING–CURB AND GUTTER

A. Joints shall be in accordance with the Village of Oswego Standard Details.

B. A 3/4-inch expansion joint filler shall be placed through the curb and gutter at the radius points of all intersection curbs. This expansion joint filler shall extend through the entire thickness of concrete and shall be perpendicular to the surface and at right angles to the line of the curb and gutter.

C. At intervals of not more than 10 feet, a contraction joint shall be tooled to a depth of one-fifth of the total concrete thickness with a 1/4-inch-radius jointer. The contraction joint shall be at right angles to the line of the curb and gutter.

D. If machine-formed curb and gutter is provided by CONTRACTOR, CONTRACTOR shall create a plane of weakness at all joints that is sufficient to cause contraction cracking at the joints.

E. CONTRACTOR may saw contraction joints. The depth of cut shall be a minimum of one-fifth of the total concrete thickness. Sawing shall be done as soon as practicable after the concrete has set sufficiently to preclude raveling during the sawing and before any shrinkage cracking takes place in the concrete. If this method results in random cracking, CONTRACTOR will be required to tool the contraction joints as specified above.

F. The use of steel separator plates will not be allowed.

G. Jointing shall be included in the price bid for curb and gutter.

3.08 JOINTING–SIDEWALKS AND DRIVEWAYS

A. Joints shall be in accordance with the Village of Oswego Standard Details.

B. Concrete sidewalk shall be cut into rectangular blocks approximately 5 feet long. The cut must extend at least one-fifth of the total thickness of concrete. The edges of the sidewalk along forms and joints shall be rounded with an edging tool of 1/4-inch radius. All joints shall be at right angles to the centerline of the sidewalk.

C. Concrete driveways shall be jointed in approximately square sections. The depth of the joint and the finishing of the edges shall be the same as for concrete sidewalk.

3.09 EXPANSION JOINTS

A. Expansion joints shall be in accordance with the Village of Oswego Standard Details.

B. A 1-inch-thick expansion joint filler shall be placed between curb ramps and back of curb.

C. A 1-inch-thick expansion joint shall be placed at all sidewalk corners, between sidewalks and buildings, and between back of curb and sidewalk.

3.10 SLOPE

A. Sidewalk cross slope shall not exceed 1/4 inch per foot unless otherwise noted in the Drawings or requested by ENGINEER.

3.11 CURB RAMP

A. Curb ramps shall be constructed in accordance with the Standard Specifications.

3.12 INLET CASTING ADJUSTMENT

A. Inlet casting shall be adjusted to grade as required for the installation of the new curb and gutter.

3.13 UTILITY MARKINGS

A. The ends of utility service lines (sewer, water, and electrical conduits) shall be marked during installation. The curb top shall be marked immediately adjacent to these utility markers. Curb markers shall be 2 inches in height and shall consist of a “W” for water, “S” for sewer, and “E” for electric and blank conduits. Markings shall be embossed a minimum of 1/4 inch deep and be 3/8 inch thick. Utility markings shall be considered incidental work to curb and gutter.

3.14 CURING

A. As soon after finishing operations as the free water has disappeared, the concrete surface shall be sealed by spraying on it a uniform coating of curing material in such a manner as to provide a continuous water impermeable film on the entire concrete surface.

B. The material shall be applied to form a uniform coverage at the rate of not less than one-half gallon per 100 square feet of surface area.

C. Within 30 minutes after the forms have been removed, the edges of the concrete shall be coated with the curing compound applied at the same rate as on the finished surface.

3.15 PROTECTION OF CONCRETE

A. CONTRACTOR shall erect and maintain suitable barricades to protect the new concrete. Where it is necessary to provide for pedestrian traffic, CONTRACTOR shall, at their own cost, construct adequate crossings. Crossing construction shall be such that no load is transmitted to the new concrete.

B. Any part of the work damaged or vandalized prior to final acceptance shall be repaired or replaced at the expense of CONTRACTOR in a manner satisfactory to ENGINEER.

C. Pedestrian traffic shall not be permitted over new concrete prior to 72 hours after application of curing material. Vehicular traffic shall not be permitted over newly placed concrete within 7 days after completion when temperatures are 70°F or higher, 10 days when temperatures are not lower than 60°F and up to a maximum of 21 days when the temperatures are generally lower than 60°F.

3.16 CONCRETE TESTING

A. The following tests of fresh concrete shall be performed by CONTRACTOR. CONTRACTOR shall prepare, protect, transport, and have tested all cylinders at its expense.
   1. Sampling of concrete for slump tests, air tests, temperature tests, and for making concrete test cylinders shall be performed in accordance with ASTM C172.
   2. Cylinders:
      a. Three test cylinders shall be made for each pour less than 25 cubic yards, four test cylinders shall be made for each pour between 25 and 100 cubic yards, and eight test cylinders shall be made for each pour in excess of 100 cubic yards. Each concrete mix shall be represented by at least four cylinders for the entire job. Concrete for cylinders shall be collected near the middle of the load and/or as requested by ENGINEER.
      b. Cylinders shall be made and tested in accordance with ASTM C31 and ASTM C39, respectively. The cylinders must be kept moist and at temperatures between 60°F

and 80°F and shall remain undisturbed and stored in a location free from vibration. In hot weather, the cylinders shall be covered with wet burlap and stored in a shaded area. It is CONTRACTOR's responsibility to provide a suitable protected location for storing cylinders on the jobsite.

c. After 24 hours, the cylinders shall be transferred to an independent testing laboratory acceptable to OWNER. The cylinders shall be packed in sawdust or other cushioning material for transit to avoid any bumping or jarring of the cylinders.

d. Cylinders shall be broken at 7 and 28 days or as requested by ENGINEER. Test results shall be transmitted immediately and directly to ENGINEER and OWNER. Test data shall include date and location of pour and concrete mix used.

3. Slump Test: CONTRACTOR shall make one slump test near the beginning of all pours with two tests being made for all pours in excess of 25 cubic yards, or as requested by ENGINEER. Slump tests shall conform to ASTM C143.

4. Air Test:

a. When air-entrained concrete is used, the air content shall be checked by CONTRACTOR near the beginning of all pours with at least two checks being made for all pours in excess of 25 cubic yards, or as requested by ENGINEER.

b. The air contents shall be checked using the pressure method in accordance with ASTM C231. The pocket-sized alcohol air indicator shall not be used unless it is first used in conjunction with the pressure method test.

3.17 BRICK PAVER SHOULDER REMOVE AND REINSTALL

A. Existing bricks shall be removed with care, salvaged, and stored properly to minimize damage and allow for reuse. If pavers are damaged during removal, the cost to replace the paver brick shall be included in the unit price for the Work.

B. Replacement of paver bricks shall match the existing brick in color, size, material, pattern, and appearance.

C. Aggregate base course shall be installed as specified herein.

D. Brick pavers shall be installed to match the existing pattern.

END OF SECTION

SECTION 32 17 23.13

PAVEMENT MARKINGS

PART 1–GENERAL

1.01 SUMMARY

A. This section describes furnishing and installing pavement markings conforming to the State of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Section 780 and as shown on the Drawings.

1.02 MEASUREMENT AND PAYMENT

A. The Work performed and materials furnished shall be measured and paid for by the lineal foot; or by the square foot for word, symbol, or shape. Each stripe will be measured separately. The Unit Price Bid will be complete compensation for all equipment, material, labor, and supervision required to place the pavement markings as shown on the Drawings.

B. Pavement Marking Removal: Water Blasting shall be measured and paid for by the square foot in accordance with Section 783 of the Standard Specifications.

1.03 REFERENCES

A. State of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Section 780.

1.04 SUBMITTALS

A. Submittals shall be in accordance with provisions of Section 01 33 00–Submittals.

PART 2–PRODUCTS

2.01 PAVEMENT MARKINGS

A. Provide thermoplastic pavement markings in accordance with State of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction.

PART 3–EXECUTION

3.01 PAVEMENT MARKINGS

A. Place markings in accordance with Section 780 of the Standard Specifications.

B. Markings shall be placed at locations noted within 1-inch tolerance.

3.02 PAVEMENT MARKING REMOVAL

A. Removal of existing pavement markings shall be performed using the water blasting method in accordance with Section 783 of the Standard Specification.

END OF SECTION

SECTION 32 92 19

SEEDING

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. Preparation of subsoil.
   2. Placing topsoil.
   3. Seeding, mulching and fertilizing.
   4. Maintenance.

B. Except for paved, riprapped, or built-up areas, all areas of the site which are disturbed and areas noted on the Drawings shall be seeded or sodded. Surfaces on 3-to-1 slope or less may either be seeded or sodded, but surfaces on greater than 3-to-1 slope shall be sodded.

C. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCES

A. FS O-F-241–Fertilizers, Mixed, Commercial.

B. Standard Specifications: Unless otherwise indicated, Standard Specifications shall refer to the State of Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications.

1.03 QUALITY ASSURANCE

A. Provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.

1.04 DELIVERY, STORAGE, AND PROTECTION

A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.

B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.05 MEASUREMENT AND PAYMENT

A. Restoration: Seed shall be measured and paid for at the lump sum unit price. The cost shall include preparation of subsoil, placement of 6 inches of topsoil, placement of erosion control blanket, and furnishing and placing fertilizer, mulching, watering, weeding, and seed.

1.06 WARRANTY

A. At the end of the warranty period, as defined in the Contact, a minimum survival rate of 70 percent for all seed material in a restored area will be considered acceptable. Unaccepted material shall be removed and replaced by CONTRACTOR at no cost to OWNER during the next suitable growing season.

B. Replacement seed shall be of the same type as specified, planted in the next growing season, with a new warranty commencing on the date of replacement.

PART 2–PRODUCTS

2.01 SEED MIXTURE

A. Seed Mix Class 1a–Salt-Tolerant Lawn Mixture per Standard Specifications. Use blue tag certified seed. Do NOT use bent or Poa Annua. Each seed lot will be subject to sampling and testing by the State seed laboratory.

B. Weed content shall not exceed 0.5% in mixture.

2.02 SOIL MATERIALS

A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay, or impurities, plants, weeds, roots and rocks; pH value of minimum 5.4 and maximum 7.0.

B. Topsoil from the site may be used if it meets the above requirements. Additional topsoil shall be provided as required by Drawings and Specifications.

2.03 ACCESSORIES

A. Mulching material shall be oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.

B. Fertilizer shall be FS O-F-241, Type I, Grade A; recommended for grass, with 50% of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil to the following proportions: Nitrogen 10%, phosphoric acid 10%, soluble potash 10%. Submit composition deviations to suit site conditions for ENGINEER's review.

C. Water shall be clean, fresh, and free of substances or matter which could inhibit vigorous growth of grass.

PART 3–EXECUTION

3.01 EXAMINATION

A. Verify that prepared soil base is ready to receive the work of this section.

3.02 PREPARATION OF SUBSOIL

A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles, and contours. Make changes in grade gradual. Blend slopes into level areas.

B. Remove foreign materials, weeds, and undesirable plants and their roots. Remove contaminated subsoil in accordance with local, state, and federal regulations.

C. Scarify subsoil to a depth of 3 inches where topsoil is to be placed. Repeat deep (> 12 inches) subsoiling or cultivation in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.03 PLACING TOPSOIL

A. Spread topsoil to a minimum depth of 6 inches over area to be seeded. Rake until smooth.

B. Place topsoil during dry weather and on dry unfrozen subgrade.

C. Remove vegetable matter and foreign nonorganic material from topsoil while spreading.

D. Grade topsoil to eliminate rough, low or soft areas, and to provide positive drainage.

E. Manually spread topsoil around trees, plants, and buildings to prevent damage.

F. Leave stockpile area and site clean and raked, ready to receive landscaping.

3.04 FERTILIZING

A. Apply fertilizer at the applicable rates specified in Section 250 of the Standard Specifications.

B. Apply after smooth raking of topsoil and prior to installation of seed or sod, no more than 18 hours before seeding.

C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.

D. Mix thoroughly into upper 2 inches of topsoil.

E. Lightly water to aid the dissipation of fertilizer.

3.05 SEEDING

A. Apply seed at the applicable rates specified in Section 250 of the Standard Specifications. Apply evenly in two intersecting directions. Rake in lightly or roll the seeded area after seeding.

B. Do not seed areas in excess of that which can be mulched on same day.

C. Planting season shall be between April 1 and June 15, or between August 1 and November 1, in accordance with Section 250 of the Standard Specifications.

D. Do not sow immediately following rain, when ground is too dry or during windy periods.

E. Immediately following seeding, apply mulch:
   1. Minimum Spread Rate: 1 1/2 tons per acre.
   2. Maximum Depth: 1 1/2 inches to 2 inches.

F. Apply water with a fine spray immediately after each area has been mulched and on a daily basis to keep straw in place.

G. Seeding shall be maintained by CONTRACTOR until grass is well established. Grass is well established when it covers the entire seeded areas to a height of 2 inches.

H. Place erosion control blanket per Section 31 25 00–Slope Protection and Erosion Control.

3.06 MAINTENANCE

A. Mow grass at regular intervals to maintain at a maximum height of 2 1/2 inches. Do not cut more than one-third of grass blade at any one mowing.

B. Immediately remove clippings after mowing.

C. Water to prevent grass and soil from drying out.

D. Roll surface to remove minor depressions or irregularities.

E. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions. Remedy damage resulting from improper use of herbicides.

F. Immediately reseed areas which fail to show adequate catch. Bare spots shall not exceed 5 square feet in area and not exceed 3% of the total seeded areas. Immediately replace sod in areas which show bare spots or deterioration.

G. Protect seeded areas with warning signs during maintenance period.

H. Immediately reseed areas which do not show a satisfactory stand of established grass, and resod areas that do not show satisfactory establishment.

I. Correct damage resulting from erosion, gullies, rills, or other causes by filling with topsoil, tamping, refertilizing, and reseeding if damage occurs prior to acceptance of work.

J. Maintain seeded lawns for not less than 60 days after substantial completion.

K. If seeded in fall and not given full 60 days of maintenance, or if not considered acceptable at that time, continue maintenance the following spring until acceptable lawn is established.

L. Maintain lawns by watering, fertilizing, weeding, mowing, trimming, and other operations such as rolling, regrading, and replanting as required to establish a smooth acceptable lawn free of eroded or bare areas.

END OF SECTION

SECTION 33 00 10

BURIED PIPING AND APPURTENANCES

PART 1–GENERAL

1.01 SUMMARY

A. Work Included:
   1. All underground piping, valves, and appurtenances of every description.
   2. Excavation, dewatering, and backfilling for all work under this section unless otherwise noted.
   3. Concrete foundations and anchor bolts for all equipment furnished under this section.
   4. Underground piping connections to all equipment, whether furnished under this section or not.

B. Related Sections and Divisions: Applicable provisions of Division 01 shall govern work in this section.

1.02 REFERENCED SPECIFICATIONS

A. Standard Specifications for Water and Sewer Construction in Illinois, current edition, referred to herein as SSWSC.

B. Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, including all issued supplemental specifications, referred to herein as SSRBC.

1.03 PAYMENT

A. Water Main, of size and material specified, shall be paid for at the Contract unit price per foot without deducting for length of fittings and valves. Fittings and polyethylene encasement shall not be measured and paid for separately and shall be considered incidental to the pipe. The unit price includes furnishing labor, material (except when provided by OWNER), and equipment to install water main. Hydrant lead pipe between the auxiliary valve and water main shall be included in this item. Water main in casing shall be paid for separately.

B. Water Service, 1-Inch, of type specified shall be paid for at the Contract unit price by type per each and shall include copper piping, corporation stop, service saddle, curb stop, water service box, and connection to existing service.
   1. Long Water Services shall be defined as any water service which requires installation under an adjacent roadway pavement to install a domestic water service box or reconnect an existing water service or which requires crossing more than half the roadway width if the water main is in the roadway.
   2. Short Water Services shall be defined as any water service which does not require installation under an adjacent roadway pavement to install a domestic water service box or reconnect an existing water service or which does not require crossing more than half the roadway width if the water main is in the roadway.

C. Fire Hydrant with Auxiliary Valve and Valve Box shall be paid for at the Contract unit price per each. The price bid shall include the cost of all material, work, excavation, and backfilling necessary for construction of fire hydrants, auxiliary valves, valve boxes, and hydrant lead pipe between the auxiliary valve and the hydrant.

D. iHydrant with Auxiliary Valve and Valve Box shall be paid for at the Contract unit price per each. The price bid shall include the cost of all material, work, excavation, and backfilling necessary for construction of iHydrants, auxiliary valves, valve boxes, and hydrant lead pipe between the auxiliary valve and the hydrant.

E. Gate Valve with Valve Vaults, of valve diameter and vault diameter and type specified, shall be paid for at the Contract unit price per each. Contract unit price shall include all labor, material, and equipment for the valve installation including excavation and backfilling, thrust restraint, valve vault and installation, corporation stop couplings, protection, location tape, tracer wire, rough grading, removal of excess excavated material, and any other ancillary work related to valve installation.

F. Line Stop, of the size specified, shall be paid for at the Contract unit price per each. The price of all materials, labor, and equipment necessary to install the line stop shall be included in the unit price.

G. Connections to Existing Water Main shall be paid for at the Contract unit price per each. The price for all materials, labor, granular bedding, granular backfill, all pipe and pipe fittings, and other items necessary to complete the work shall be included in the unit price.

H. Cut and Cap Existing Water Main shall be paid for at the Contract unit price per each. The price for all materials, labor, granular bedding, granular backfill, all pipe fittings, and other items necessary to complete the work shall be included in the unit price.

I. Storm Sewers, Water Main Quality Pipe, of the size specified, shall be paid for at the Contract unit price per foot as outlined in Section 550 of the Standard Specifications.

J. Sanitary Sewer Service Lateral, Remove and Replace with Water Main-Quality Pipe, shall be paid for at the Contract unit price per each.

K. Sanitary Sewer, Water Main-Quality Pipe, of size specified, shall be paid for at the Contract unit price per linear foot.

L. Water Sampling Station shall be paid for at the Contract unit price per each. The price for station lead pipe from main to station, all ancillary piping, valves, pipe fittings, curb stop, materials, labor, granular bedding, and other items necessary to complete the work shall be included in the unit price.

1.04 SUBMITTALS

A. Submit shop drawings in accordance with Section 01 33 00–Submittals for all products and materials herein described.

PART 2–PRODUCTS

2.01 MATERIALS OF CONSTRUCTION

A. All materials used in the manufacture, assembly, and painting of piping and valves in contact with water shall be compatible with potable water supplies and in contact with chemical feed systems shall be compatible with the chemicals being used. All glues, solvents, solders, etc., shall likewise be compatible. For instance, no lead-base solders shall be used. All materials in contact with water to be used for potable water supplies shall be National Sanitation Foundation (NSF)-approved.

B. Size and Type:
   1. All materials shall conform to the size and type shown on the Drawings or called for in the specifications.
   2. In joining two dissimilar types of pipe, standard fittings shall be used when available. In the event standard fittings are not available, the method of joining shall be standard selected by CONTRACTOR and submitted for review by ENGINEER.

C. Materials provided shall be suitable for the conditions in which they are being installed and used. CONTRACTOR shall review installation requirements of the Contract with material suppliers and incorporate any additional installation requirements necessary to meet the required use within the price bid for the Work.

D. All pipe and materials used in performance of the Work shall be clearly marked as to strength, class, or grade. Pipe and materials not so marked shall be subject to rejection.

E. When requested by ENGINEER, material suppliers shall furnish certificates of compliance indicating that all tests required by various Standards have been conducted and that the test results comply with the Standards.

F. Piping appurtenances shall be made of the materials specified. All appurtenances not designated as to type shall be selected by CONTRACTOR and submitted for review by ENGINEER.

2.02 MANHOLES AND UNDERGROUND UTILITY STRUCTURES

A. General: Manholes, catch basins, inlets, drainage structures, and valve vaults, indicated in these Specifications as utility structures, shall conform to Section 602 of the Standard Specifications. Valve vaults shall be in accordance with the SSWSC and the Village of Oswego Standard Details.

B. Unless otherwise specified or shown on the Drawings for special manholes, all manholes, inlets, catch basins, and valve vaults shall be reinforced concrete precast manholes. Reinforced concrete manhole base sections, riser sections, cones, and flat slabs shall conform to the requirements of ASTM C478. Solid precast manhole bottoms shall be provided except where shown on the Drawings. Valve vaults shall be provided with minimum diameters as shown in the Village of Oswego Standard Detail OSW-WQ-8 Standard Valve Vault Detail.

C. Valve Vaults and manhole top sections shall be precast reinforced eccentric cones unless precast reinforced flat slabs are specifically required or shown on the Drawings or are

necessary because of shallow depth. Flat slabs shall have opening offset unless otherwise required or shown. Flat slabs shall be designed for HS20 loadings.

D. Unless otherwise specified or shown on the Drawings, all underground utility structures shall be precast, reinforced concrete. Reinforced concrete base sections, riser sections, and flat slabs shall conform to the requirements of ASTM C858. Flat slabs shall be designed for HS20 loadings. Solid precast bottoms shall be provided unless otherwise shown on the Drawings.

E. Concrete Manhole Chimney Adjusting Rings:
   1. Provide concrete manhole adjusting rings.
   2. Precast concrete adjusting rings for standard manholes shall have an inside diameter of 26 inches, be not less than 2 inches nor more than 6 inches high, and shall have a wall thickness of 6 inches unless otherwise specified. The rings shall contain a minimum of one No. 2 reinforcing rod centered within the ring. The joints between rings and between rings and castings shall be sealed with preformed flexible joint sealant as specified herein.
   3. CONTRACTOR shall supply ring materials, adhesive, labor, and equipment to permanently install the rings in strict accordance to manufacturer's recommendations. Manhole casting rims shall be set flush with constructed road surface. Manhole casting rims within roadways shall be set 1/4 inch to 1/2 inch below finished pavement grade. Ring inside diameter shall be 24-inch nominal, or larger to match frame.
   4. A maximum of two precast concrete adjusting rings, totaling a maximum of 8 inches, shall be allowed.

F. Manhole Chimney Seals:
   1. External manhole chimney seals shall be provided for all new manholes. Chimney seal shall be Cretex, or equal.
   2. Existing manholes exposed during the construction period shall have the adjustment rings replaced and a new chimney seal installed. Existing castings shall be reused.

G. Valve Boxes:
   1. A valve box shall be provided for fire hydrant auxiliary valves. The valve box shall be centered and plumb over the wrench nut of the valve with the box cover flush with the finished ground elevation. Solid 4-inch concrete blocks shall be placed under the base of valve boxes so that the bottom of the base is about 2 inches away from contact with the valve bonnet. A Gate Valve Adaptor by Adaptor Inc., or equal, shall be provided. The valve box shall not transmit shock or stress to the valve.
   2. Valve boxes shall be made of cast iron conforming to ASTM A48. The castings shall be free from blowholes, porosity, hard spots, shrinkage defects or cracks, or other injurious defects and shall have a normal smooth casting finish. The castings shall be thoroughly coated with a 1 mil minimum thickness bituminous coating. Valve boxes shall be 5 1/4 inches in diameter. Valve boxes shall have a maximum length of 7 feet when extended without extension sections. Extensions shall be provided for deeper mains.
   3. Valve boxes shall consist of a base section, tubular mid and top sections, both with cast threads by which one can be telescoped on the other, extension sections if required, and a circular drop cover.
   4. Valve boxes shall be A.Y. McDonald, or equal, with valve box stabilizer. Extension heights shall be provided as required. Lids shall be marked for appropriate use. CONTRACTOR shall verify that all valve boxes are large enough to accommodate all

operating nuts and wrenches. Provide one “Tee” valve key operator for each valve manhole.

H. Precast Reinforced Concrete Manholes and Valve Vaults:
   1. Lengths of manhole riser (barrel) shall be furnished in such combinations as to conveniently make up the depth of the manhole. A maximum of two handling holes per length of riser will be permitted and shall be plugged watertight with nonshrink grout after setting.
   2. All joints between manhole and valve vault pipe sections and top shall be tongue and groove conforming to ASTM C443. Manhole and valve vault joints shall be sealed with circular O ring or preformed flexible joint sealant that shall be Ram-nek, Kent-Seal, Mas-stik, or equal.
   3. Vaults for new water main shall have flexible rubber watertight pipe connectors. The joint shall provide a flexible watertight connection between pipe and valve vault.
   4. Valve vaults shall be furnished of minimum diameters as shown on the Village of Oswego Standard Details.
   5. Precast reinforced concrete manhole and valve vault risers and tops shall be tested in accordance with ASTM C497. Precast reinforced concrete manhole and valve vault risers and tops meeting the strength requirements will be considered acceptable and shall be stamped with an appropriate monogram. When requested, copies of test reports shall be submitted to ENGINEER before the manhole sections are installed in the Project. Final acceptance will be made after field inspection upon delivery to the jobsite.
   6. Precast reinforced concrete manhole and valve vault sections shall be subject to rejection for failure to conform to any of the requirements of the Standard Specifications. In addition, individual sections of manhole risers and tops may be rejected because of any of the following reasons:
      a. Fracture or cracks passing through the wall, except for a single end crack that does not exceed the depth of the joint.
      b. Defects that indicate imperfect proportioning, mixing, and molding.
      c. Surface defects indicating honey combed or open texture.
      d. Damaged ends, where such damage would prevent making a satisfactory joint.
      e. Manhole steps out of line, or not properly spaced.
      f. Noticeable infiltration into manhole.
      g. Variation in diameter of the manhole section of more than 1% from the nominal diameter.
      h. Any continuous crack having a surface width of 0.01 inch or more and extending for a length of 12 inches or more regardless of position in the section wall.
   7. Manhole connections for storm sewer and sanitary sewer mains up through 18-inch diameter shall be made using flexible, watertight connections; PSC Press Seal, Kor-N-Seal, or equal. All other storm sewer or sanitary sewer manhole connections shall be made with A Lok, PSX Presss Seal, Kor-N-Seal, or equal. The joint shall provide a flexible, watertight connection between pipe and manhole. Connections into existing brick manholes shall utilize brick and hydro-cement.

I. Each precast reinforced concrete manhole and valve vault riser and top section shall be clearly marked with the name or trademark of the manufacturer and the date of manufacture. This marking shall be indented into the manhole or valve vault section or shall be painted thereon with waterproof paint.

J. Utility Structure Castings: Frames for valve manholes shall be Neenah R-1530 with Type B lid, with two concealed pickholes equipped with self-sealing gaskets, or equal. The word “Water” shall be stamped on the lid.

K. Mortar: Mortar shall meet the requirements of ASTM C270. Mortar shall be one part Portland cement and 2 1/4 parts washed mortar sand.

L. Preformed Flexible Joint Sealant: Preformed flexible joint sealant shall be EZ Stik, Kent Seal, Ram Nek, or equal, meeting the requirements of ASTM C990.

M. O-Rings: O-rings shall meet the requirements of ASTM C443.

2.03 BURIED PIPING

A. Ductile Iron Piping and Fittings:

1. Unless otherwise shown or specified, all underground piping 3 inches in diameter or larger shall be ductile iron conforming to AWWA C151/A21.51 with mechanical joints or push-on joints. Pipe wall thickness shall be furnished as required by AWWA C150 for buried piping with the depth of cover as shown on the Drawings for laying condition 4, minimum Special Thickness Class or Pressure Class as listed below, unless otherwise shown or specified.

Pipe Size (Inches)	Special Thickness (Class)	Pressure Class
4	52	350
6	52	350
8	52	350
10	52	350
12	52	350

2. Each pipe and fitting shall have the class or nominal thickness, country where cast, casting period, manufacturer’s mark, the year in which the pipe was produced, and the letters DI or DUCTILE cast or stamped thereon. Improper or incomplete marking will be cause for rejection of the pipe or fitting.
3. CONTRACTOR shall furnish certification data representing each class of pipe or fitting furnished. The certification report shall clearly state that all pipe and fittings furnished meet the appropriate AWWA specification. Ductile iron pipe shall consist of pipe centrifugally cast in metal or sand-lined molds. Pipe wall shall be homogeneous from inside to outside and shall be completely free of laminations, blisters, or other imperfections. Defects may be removed at the factory only.
4. Except as otherwise specified, underground pipe shall have mechanical joints or push-on joints conforming to AWWA C110 and C111, as well as AWWA C153 (compact), with vulcanized styrene butadiene rubber gaskets conforming to AWWA C111. Gaskets that include metal locking segments vulcanized into the gasket to grip the pipe and provide joint restraint are not acceptable. Bolts on mechanical joints shall be ASTM A242 high-strength low-alloy steel, conforming to AWWA C111 and ANSI A21.11. Certificate to that effect shall be provided.
5. For ductile iron pipe systems requiring pressure testing, restrained joints shall be provided in accordance with Part 3–Execution.

a. Pipe restraint fittings shall be provided as follows:
   (1) For ductile iron pipe with ductile iron mechanical joints MEGALUG® Series 1100 or 1100SD by EBAA Iron Sales, Inc.; Series D SLDE or SSLD by Sigma; Series 3000 or 3000S by Star Pipe Products; or equal.
   (2) For ductile iron pipe with ductile iron push on joints MEGALUG® Series 1100HD or 1700 by EBAA Iron Sales, Inc; Series SLDEH or SSLDH by Sigma; Series 3100P or 3100S by Star Pipe Products; Flex Ring or Lok Ring by American Cast Iron Pipe Company; TR Flex by U.S. Pipe Company; or equal.
   (3) For PVC pipe with ductile iron mechanical joint fittings–MEGALUG® Series 2000 PV, 1100SV, or 2000SV by EBAA Iron Sales, Inc.; Series D SLCE or PVM by Sigma; Series 1000C or 4000 by Star Pipe Products; or equal.
   (4) For PVC pipe with PVC push on joints (not solvent welded)–MEGALUG® Series 1100HV, 1900, or 2800 by EBAA Iron Sales, Inc.; Series SLCEH, PWP (greater than 12-inch only), or D PWP (12 inches or less) by Sigma; Series 4100P by Star Pipe Products; or equal.

b. Gland body, wedges, and wedge actuating components shall be ductile iron conforming to ASTM A536 Grade 65 45 12. Bolts and tie rods shall be high strength low alloy steel conforming to AWWA C111.

c. Gaskets that include metal locking segments vulcanized into the gasket to grip the pipe to provide joint restraint are not acceptable.

6. Joint restraint is not required for gravity sewers, drains, and those pipes designated in Paragraph 3.02.G.1. Infiltration/Exfiltration Tests.
7. Underground pipe shall have mechanical joint or push-on joint ductile iron fittings conforming to AWWA C110 and C111 or AWWA C153 compact fittings with a minimum rated working pressure of 150 psi. Gaskets for fittings shall be as specified for underground piping.
8. All ductile iron fittings shall be American Cast Iron Pipe, Tyler Union, U.S. Pipe, or equal, and shall be made in the United States of America.
9. Unless otherwise specified, all exterior ductile iron piping and fittings shall be cement-mortar lined and asphaltic-coated inside. Cement-mortar lining shall be in accordance with AWWA C104. Unless otherwise specified, underground piping and fittings shall be shop primed or asphaltic-coated outside. Asphaltic coating shall conform to applicable standards herein for the pipe and fittings.
10. For potable water systems, the outside pipe coating shall comply with AWWA C151. Lining and coatings shall be suitable with potable water systems. The asphaltic coating shall be applied over the cement lining on the inside of the pipe and directly on the outside of the pipe. The coatings shall be smooth and impervious to water without any tendency to scale off.
11. All buried ductile iron piping and appurtenances shall be polyethylene encased in accordance with AWWA C105. Polyethylene encasement shall be Class C (carbon black) and shall be minimum 8 mil thickness. Tape for securing the film shall be a thermoplastic material with a pressure sensitive adhesive face capable of bonding to metal, asphaltic coating, and polyethylene. Tape shall have a minimum thickness of 8 mils and a minimum width of 1 inch. The polyethylene film envelope shall be as free as is commercially possible of gels, streaks, pinholes, particles of foreign matter, and undispersed raw materials. There shall be no other visible defect, such as holes, tears, blisters, or thinning out at folds. For buried pipe polyethylene encasement shall be V-BIO polyethylene encasement and shall meet ANSI/AWWA C105-A21.5 Polyethylene Encasement for Ductile Iron Pipe. V-BIO to

include an anti-microbial Biocide as well as a corrosion inhibitor. Specifications to include 8 mil thickness, tensile strength of 3,600 psi per ASTM D882, elongation of 800% min per ASTM D882, and dielectric strength of 800 V/mil thickness per ASTM D149. Installation of V-BIO polyethylene encasement shall be per ANSI/AWWA C105-A21.5 Polyethylene Encasement for Ductile Iron Pipe.

12. Tapping and Bonding: In cases where corporation stops are to be tapped into mains, pipe wall thickness shall be furnished as specified in AWWA C151 to provide four threads or pipe saddles shall be furnished as approved by manufacturer.
13. Cutting in and Repair Tees and Sleeves and Tapping Tees: Cutting-in and repair tees and sleeves and tapping tees shall be of ductile or cast iron with the same rated working pressure of the pipe in which they are installed but no less than 150 psi.
14. Exterior Joints, Fittings, and Gaskets: Joints, fittings, and gaskets shall have the same rated working pressure of the pipe in which they are installed but no less than a minimum rated working pressure of 150 psi.

B. Reinforced Concrete Pipe:

1. Reinforced concrete pipe for storm sewer shall meet the requirements of ASTM C76 and Section 1042 of the Standard Specifications for circular pipe, ASTM C507 for elliptical pipe, ASTM C655 for D-load pipe, or ASTM C1433 for box culvert pipe. All pipes shall have a smooth interior wall. Strength and class of the pipe shall conform to the Drawings and as specified herein. All reinforced concrete pipe used in the work shall be of adequate strength to support the trench loads applied. Unless otherwise shown or specified, all reinforced concrete pipe shall be Class A minimum and shall have a minimum “B” wall construction. All reinforcing cages shall be circular for circular pipe. All reinforcing cages shall be elliptical for elliptical pipe. Reinforcing cage shall extend to the full width into the bell end of the pipe and to within 1 inch of the spigot end of the pipe.
2. Standard and special fittings shall be of approved manufacturer and shall conform to requirements of the trade and these specifications. All fittings shall be of a strength at least equal to that of the sewer main and shall be jointed with the same type of joint as used in the sewer main.
3. Not more than one lift hole per length of pipe shall be used in storm sewer.
4. Reinforced concrete pipe and fittings shall be provided with joints and gaskets that meet ASTM C443 for storm sewer pipe. Joints for circular and elliptical storm sewer shall be sealed with rubber gaskets having a continuous O-ring cross section, Tylox Superseal, or equal. All pipe shall be specifically built to fit the gasket used.
5. Nonstandard pipe lengths may be used at manholes and structures as necessary to allow them to be located at the locations identified on the Drawings. Reinforced concrete bends, tees, and reducers shall be manufactured to provide for the required transitions as shown on the Drawings. Sufficient additional reinforcement shall be added at the spring lines and top and bottom of the pipe to prevent shearing after installation. Repairs to complete fabricated pipe fittings shall be such that the completed unit shall have the same strength as that of the remainder of the pipe barrel and the concrete used to complete the section shall not spall or separate.
6. Acceptance of reinforced concrete pipe shall be on the basis of plant load-bearing tests, material tests, and inspection of manufactured pipe for visual defects and imperfections.
7. Cement used in the manufacture of reinforced concrete pipe shall meet the requirements of ASTM C150, Standard Specification for Portland Cement for Type II cement.

8. A three-edge bearing test shall be conducted by the manufacturer according to ASTM C497 as proof of design by determining the ultimate load capacity of the pipe. One segment of pipe from each pipe class must pass the three-edge bearing test such that the load required to produce the ultimate load exceeds the load rating of the pipe. The test results shall be maintained in a log and provided to OWNER. Manufacturer shall also maintain concrete cylinder testing data and quality control records to verify that pipe meets the required ASTM standards.
9. An alkalinity test shall be conducted on the concrete mixture used for each type and class of reinforced concrete pipe used in the Project. The alkalinity test shall be conducted according to ASTM C497 and the alkalinity of all concrete mixtures shall be equal to or greater than 0.2 grams of $CaCO_3$ equivalent reactivity per gram of concrete. The manufacturer shall complete the alkalinity tests.
10. The costs of the tests shall be incidental to the pipe cost. CONTRACTOR shall include all such costs in the price bid for the Work. CONTRACTOR shall submit a signed, dated, and certified copy of the test data to OWNER (in a format acceptable to OWNER) for review prior to delivering any pipe to the Project site. No additional compensation will be made to CONTRACTOR for the required testing.
11. CONTRACTOR shall provide written certification that pipe meets the standards herein.

C. Copper Water Tubing:
1. Copper tubing installed within trenches shall be Type K soft annealed seamless copper tubing and shall conform to the Specifications of ASTM B88. All other copper shall be Type K hard copper conforming to ASTM B88.
2. Fittings shall be of the flared or compression type. Unions shall be extra heavy three-part unions only. Joints shall not be used under floor slabs.
3. The name or trademark of the manufacturer and a mark indicating the type shall be permanently and plainly marked on tubing.
4. Fittings for copper tubing shall be copper alloy meeting the requirements of AWWA C800-14. The maximum lead content shall be 0.25%. They shall have uniformity in wall thickness and strength and shall be free from any defect that may affect their serviceability.
5. Each fitting shall be permanently and plainly marked with the name or trademark of the manufacturer.
6. Shutoff valves shall be placed on each branch for all underground piping.

D. Solid Wall PVC:
1. Polyvinyl chloride (PVC) pipe shall meet the requirements of ASTM D3034 for pipe sizes 4 inches through 15 inches and ASTM F679 for pipe sizes 18 inches through 60 inches.
2. PVC material for ASTM D3034 pipe shall have cell classification 12454 or 12364 as defined in ASTM D1784 with minimum modulus of elasticity of 400,000 psi. Pipe stiffness shall be minimum 46 psi when tested in accordance with ASTM D2412. Pipe shall have a standard dimension ratio (SDR) of 26.
3. PVC material for ASTM F679 pipe shall have cell classification 12454 or 12364 as defined in ASTM D1784 with a minimum modulus of elasticity of 500,000 psi. Pipe stiffness shall be a minimum 115 psi when tested in accordance with ASTM D2412.
4. Pressure rated (water main quality) pipe and fabricated fittings shall be in accordance with ASTM D2241 for sizes 4 inches through 36 inches, or in accordance with AWWA C900 for sizes 4 inches through 12 inches, or AWWA C905 for sizes 14 inches through 48 inches.

5. Pipe and fittings shall be the product of one manufacturer, and the manufacturer shall have experience records substantiating acceptable performance of the pipe and fittings to be furnished. The minimum wall thickness of fittings shall be the same as the pipe to which it connects.
6. Acceptance of piping and fittings shall be subject to tests conducted in accordance with ASTM D3034 and/or ASTM F679.
7. Fittings such as saddles, elbows, tees, wyes, and others shall be of material and construction corresponding to and have a joint design compatible with the adjacent pipe. Approved adapters shall be provided for transitions to other types of pipe.
8. Joints shall be of the elastomeric type for pipes 4 inches or larger and elastomeric or solvent cement for pipes less than 4 inches.
9. Elastomeric joints shall be a bell and spigot joint conforming to ASTM D3212 sealed by a rubber gasket conforming to ASTM F477 so that the assembly will remain watertight under all conditions of service, including the movements resulting from the expansion, contraction, settlement, and deformation of the pipe. Bells shall be formed integrally with the pipe and shall contain a factory-installed positively restrained gasket.
10. Solvent cement joints shall not be allowed.
11. The assembled joint shall pass the performance tests as required in ASTM D3212.

E. Gravity Sanitary Sewer Service Branches and Laterals:
1. Branches (tees and wyes) shall be of the same material as the main except for reinforced concrete pipe used for sanitary sewer. For reinforced concrete pipe, special branches shall be furnished and installed to accept the lateral. Such special branches are subject to review by ENGINEER.
2. If a different thermoplastic material is specified for laterals than for the main line, appropriate solvent welds, fittings, transition couplings, and other appurtenances shall be provided to effect a water tight seal.
3. Fittings for laterals shall be of the same material as the lateral pipe unless special fittings are needed for transition between material types or sizes or standard fittings are not manufactured.
4. Where the wye or tee branches and laterals are of dissimilar materials, CONTRACTOR shall provide a transition coupling for the connection.
5. All fittings used, including type of jointing, are subject to review by ENGINEER.

F. Transition Couplings for Gravity Sewer Service: Transition couplings shall be provided to join dissimilar pipe materials or to connect pipe where a standard pipe joint cannot be provided. Couplings shall be designed to join the pipe materials matching flow line elevations. Transition couplings for gravity sewer service shall be Fernco 5000 RC Strongback, Mission Flex Seal ARC Shielded, or equal. Shear rings shall be provided to minimize differential settlement. All bands, clamps, shear rings and other metal components shall be stainless steel. Bushings or transitions shall be provided to accommodate pipe size differences.

G. Miscellaneous Pipe:
1. Piping needed for repair or reconstruction of existing utilities and appurtenances shall be of the same type and strength as the existing. The type of jointing used in repair and reconstruction shall be reviewed by ENGINEER. Special fittings shall be furnished and installed as necessary for repair, reconstruction, or connection of existing facilities.

2. All special fittings on or for connection to utilities shall be specifically built for the type of gasket used. Special fittings shall have joints of the same type as the utility to which the connection is being made.
3. When sanitary sewer construction is within 50 feet of a potable well, 200 feet of a municipal well, or as requested by ENGINEER, a water main equivalent pipe shall be used. To transition from water main equivalent pipe to pipe normally supplied, a transition pipe with suitable joints to mate the two different pipes shall be supplied. No field constructed transitions will be allowed unless reviewed by ENGINEER and approved by OWNER. Construction shall not proceed until proper transition pipe is supplied.

H. Tracer Wire:
1. Provide minimum 10-gauge solid insulated copper tracer wire with buried thermoplastic pressurized pipe. Wire shall be continuous, terminate, and be accessible at valve boxes, manholes, fire hydrants, or at test stations as specified below. Tracer wire shall be located 12 inches above the top of the pipe. Any splices in copper wire shall be made with a 3M™ DBR/Y-6 splice kit, or equal.
2. Tracer wire test stations shall be SnakePit magnetized tracer boxes by Copperhead Industries, or equal. Tracer box shall be corrosion-resistant brass wire lugs and wax pad to cover wire connection. Cover shall be color-coded according to APWA standards for fluid conveyed. Provide SnakePit Lite Duty Box in unpaved areas and Roadway Box in paved areas. Provide Rhino Triview Marker Posts, or equal, at all test stations. Provide custom decals to identify fluid in piping. The tracer wire shall be accessible at a minimum of every 500 feet along the pipeline and at horizontal bends in piping. The tracer wire shall run into and up the sides of all manholes and be secured near the casting. Test stations shall be placed as required between manholes to comply with the minimum 500-foot tracer wire accessibility requirement.
3. CONTRACTOR shall perform continuity testing of all tracer wire in the presence of OWNER.

I. Clay Pipe: Vitrified clay pipe and fittings shall conform to ASTM C700. Pipe and fittings shall be extra strength. Joints shall be compression type joints conforming to ASTM C425.

2.04 VALVES

A. Gate Valves:
1. Shutoff valves in potable water lines 4-inch diameter and larger shall be AWWA C515, ductile iron counter-clockwise to open, resilient seat, nonrising stem, 250 psi working pressure with O-ring packing box, American Flow Control Series 2500.
2. Two corporation stop couplings shall be provided with each gate valve for testing and flushing purposes in accordance with the Village of Oswego Standard Details. Corporation stop couplings shall be 1-inch and Mueller B-25008, or equal.

B. Auxiliary Valves:
1. Auxiliary valves shall be Clow F5066 with national standard nut, open to the left, and shall have a mechanical joint connection.
2. Auxiliary box adapters shall not be permitted.

C. Service Saddle: Service saddles shall have a ductile iron body in accordance with ASTM A536 and have two carbon steel bales. Bales, washers, and nuts shall be

electrogalvanized with dichromate seal. Gasket shall be of nitrile rubber and NSF61 listed. Saddle shall be Smith-Blair, Style 313, or equal.

D. Corporation Stop and Curb Stop Valves:
   1. Performance Requirements: Lead Free Requirements: All materials that contact potable water shall be lead free. Lead free refers to the wetted surface of pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25% per the Federal Safe Drinking Water Act as amended January 4th, 2011 Section 1417. All products used in potable water systems shall be UL classified in accordance with ANSI/NSF 61 for potable water service and shall meet the low lead requirements of NSF 372.
   2. Corporation Stop Valves: 2 Inches and smaller: Bronze body ground key valve, bronze plug, AWWA taper thread inlet and copper flare outlet nut connections or compression type, AWWA C800, manufactured by A.Y. McDonald.
   3. Curb Stop Valves: Boxes 2 Inches and smaller: Bronze body plug valve, bronze plug, quarter turn check, O ring seals, copper flare nut connections or compression type, AWWA C800, manufactured by A.Y. McDonald. Provide Minneapolis type curb box complete with lid marked “Water” and stationary rod.

2.05 FIRE HYDRANTS

A. Fire hydrants provided under these Standard Specifications shall conform to AWWA C502 for Dry Barrel Fire Hydrants. Hydrants shall have the following features:

Bury Length	Approximately 7 1/2 feet to traffic flange, or as required for installation as shown on the Drawings.
Nozzle Size	One 4 1/2-inch- and two 2 1/2-inch-diameter openings.
Nozzle Threads	National standard fire hose coupling screw threads.
Drain Port	Drain port at base of hydrant barrel. Plug drain port when hydrant installed in area where groundwater level may rise above drain port.
Size of Main Valve Opening	5 1/4-inch-diameter minimum. The hydrant lead connection shall be minimum 6-inch-diameter mechanical joint.
Torque Requirements	Hydrant shall comply with AWWA C502 even if greater than 5-foot bury.
Lubrication	Nontoxic and providing proper lubrication for a temperature range of -30°F to +120°F.

B. Hydrants shall have permanent markings identifying the manufacturer by name, initials, insignia, or abbreviations in common usage, and designating the size of the main valve opening and the year of manufacture. Markings shall be so placed as to be readily discernible and legible after hydrants have been installed.

C. CONTRACTOR shall furnish certification to ENGINEER that the hydrant and all material used in its construction conform to the applicable requirements of AWWA C502 and the supplementary requirements thereto.

D. All joints on fire hydrant leads shall be made using pipe restraint specified herein. Approximately 1/2 cubic yard of bedding stone shall be placed from the bottom of the trench around the hydrant elbow and up the hydrant barrel. Bedding stone shall be wrapped completely in filter fabric to prevent the in migration of fine materials.

E. CONTRACTOR shall furnish all necessary fittings in the fire hydrant lead to install the fire hydrant in a plumb condition at locations shown on the Drawings and at the specified depth of bury. The pumper nozzle of all fire hydrants shall be installed with the nozzle pointing toward the street. ENGINEER reserves the right to alter the location of fire hydrants from that shown on the Drawings.

F. Hydrants shall be installed as shown on the Village of Oswego Standard Details.

G. Fire Hydrant:
   1. Fire hydrant shall be Waterous W-67 Pacer or Clow Medallion.
   2. Hydrant to be painted Rustoleum Safety Red prior to reaching the job site.
   3. Provide restrained joint system from auxiliary valve in road box back to tee.
   4. Connect hydrant to auxiliary valve with 2-foot length of pipe.
   5. Provide drain port at base of hydrant barrel. Plug drain port when hydrant installed in area where groundwater level may rise above drain port.
   6. iHydrants shall be provided by Clow Valve Company.
   7. Pumper nozzle shall include integral 5-inch Storz connection with locking cap, open counter-clockwise.

2.06 LINE STOP

A. Permanent carbon steel or cast iron line stop fittings; such as the mechanical tapping sleeves, blind flanges and completion plugs; shall be shop-primed and finish-coated in the field with an IEPA-approved for potable water liquid-epoxy coating. The interior and exterior surfaces shall be coated. Coatings shall be applied in accordance with the coating manufacturer's recommendations and AWWA Standard C-210-92. All bolts, nuts, washers, or connection devices used on the permanent line stop fittings shall be corrosion-resistant 316 stainless steel.
   1. Two-part saddle weldment shall be fabricated from ASTM A285, Grade C steel.
   2. Outlet shall be sealed with blind flanges.
   3. Minimum saddle wall thickness shall be 3/8 inch.
   4. All mild steel parts shall be stressed-relieved after welding and coated with a fusion-bonded epoxy.
   5. Nozzle flanges shall be machined from 150 lb forged steel flanges, ASTM A181 or A105.
   6. Design of the nozzle flange shall be such that it will receive, securely retain, and pressure seal a completion plug installed under pressure through the line stop valve.
   7. After welding and stress relief, the nozzle and flange shall be bored to provide a pressure-tight seal with the O-ring contained in a groove in the completion plug.
   8. A single 3/4-inch NPT pipe coupling shall be welded to each nozzle for pressure test purposes.

B. The upper saddle plate shall be sealed to the outside of the force main by means of a resilient gasket cemented inside a groove in the nozzle half of the fitting. The gasket shall be located adjacent to and concentric with the bore of the nozzle. It will be molded with one or more concentric lips that will seal more tightly against the main with an increase in fluid pressure.

C. The fitting halves shall be drawn together by 12 3/4-inch diameter Type 304 stainless steel bolts, nuts, and washers.

D. Design of the completion plug shall be such that it will carry an O-ring to pressure seal against the interior of the nozzle and be mechanically held in place in the nozzle flange. The plug shall be capable of later removal, under pressure, in the event that a line stop may have to be reinstalled. Plug shall be made from ductile iron.

E. A suitable blind flange shall be fabricated from ASTM A-36 mild steel plate and coated with fusion-bonded epoxy. Type 304 stainless bolts and nuts shall be provided to secure the blind flange to the nozzle flange after the completion plug has been installed.

F. CONTRACTOR shall be responsible for furnishing and installing sleeve, concrete thrust blocking, and all necessary appurtenances for completion of each line stop.

2.07 INSERTION VALVE

A. Insertion valves shall be extra heavy-duty, clamp-on-type valves manufactured by Hydra-Stop (a division of ADS, LLC), or approved equal.

B. Valves shall have a standard valve nut and shall be capable of being installed under a line pressure of up to 150 psi without service disruption.

C. Valve bodies shall be fabricated from Type 304 stainless steel. Valve gates shall be made of SBR rubber, and valve stems shall conform to AWWA C500-93. Valves shall have a heavy-duty top flange in conformance with ANSI-A-105 (150 lbs).

D. The number of turns to open 4- to 16-inch-diameter valves shall be no more and no less than three times the nominal valve diameter plus an allowance of three additional turns.

2.08 PRESSURE CONNECTION

A. General:
   1. All tapping sleeves, saddles, and valves shall be designed for a working pressure of at least 250 psi for 12-inch and smaller. Valves shall be designed for a minimum differential pressure of 250 psi and a minimum internal test pressure of 500 psi, unless otherwise noted on the Drawings.
   2. Verify the type of existing pipe and the outside diameter of the pipe on which the tapping sleeve is to be installed.

B. Tapping Valves:
   1. Horizontal tapping valves, 3-inch through 12-inch, shall conform to the applicable requirements of AWWA Standard C509. Tapping valves, 3-inch through 12-inch, shall be ductile iron body, resilient-seated, nut-operated, non-rising stem gate valves suitable for buried service. Valve interior and exterior shall be epoxy coated at the factory by the valve manufacturer in accordance with AWWA Standard C550 (6-8 mil average, 4 mil minimum). Tapping valves shall have mechanical joint inlets with mechanical joint outlets, enclosed bevel gears, bypass valve, rollers, tracks, and scrapers. All valves furnished shall open (left or right). Tapping valve shall be Clow F-5093, or equal.
   2. Test valves (Operation Test and Hydrostatic Tests) at the manufacturer’s plant in accordance with AWWA Standard C509. If requested, provide OWNER with certified copies of all tests prior to shipment. OWNER reserves the right to observe all tests.

3. One corporation stop coupling shall be provided with each pressure connection for testing and flushing purposes, in accordance with the Village of Oswego Standard Details. Corporation stop couplings shall be 1-inch, Mueller B-25008, or equal.

C. Stainless Steel Tapping Sleeves: Stainless steel tapping sleeves shall meet the requirements of MSS SP-124 and AWWA C223 and be suitable for use with the tapping valves listed in this Specification. Tapping sleeves shall provide full circumferential seal, include a 3/4-inch NPT test plug, have a mechanical joint outlet, and be compatible with multiple pipe materials including, but not limited to, ductile iron, steel, cast iron, asbestos cement, and PVC. Tapping sleeve shall be Clow F-5205, or equal.

D. Tapping Saddles: Unless otherwise specified by the Drawings, tapping saddles shall conform to the requirements of AWWA Standard C800 for high-pressure class tapping saddles. Tapping saddles shall have a brass or bronze body and consist of ductile iron outlet castings attached to the pipeline with high strength stainless steel straps. Castings shall be sealed to pipeline with O-ring seals. Saddles shall have ANSI A21.10 flanged outlets counterbored for use with tapping valves and tapping equipment.

2.09 CONCRETE

A. All concrete poured under this Contract, unless shown or specified otherwise, shall conform to the requirements of the Standard Specifications.

2.10 WATER SAMPLE STATION

A. The water sample station shall have a 5 1/2-foot bury depth and a 1/2-inch unthreaded blow-off and sampling bib. Station shall be enclosed in a lockable, cast aluminum box with hinged openings. Operating rod shall be supported on both ends via the packing nut and the valve seat carrier to prevent the station from vibrating or pulsing under high pressure. A secondary drain port shall be located on the hollow operating rod underneath the handle and, when open, shall allow for evacuation of any water remaining inside the station. Water sample station shall be green in color and be stamped with the Village of Oswego's logo. Water sample station shall be Eclipse #24 as manufactured by Kupferle Water Solutions.

PART 3–EXECUTION

3.01 INSTALLATION

A. Underground Piping:
1. Utility lines shall be laid and installed to the lines and grades specified with valves, fittings, manholes, and other appurtenances at the specified locations; spigots centered in bells; and all manholes and riser pipes plumb. Water main and force main shall be installed at the depth indicated. Gravity sewer mains and laterals shall be installed at the elevations shown on the Drawings. Water main, force main, and other pressure mains shall be installed to within (plus or minus) 0.1 feet of designed grades. Sanitary and storm sewer and laterals shall be installed to within (plus or minus) 0.03 feet of designed grades. Service lines shown on the Drawings are approximate. CONTRACTOR shall perform all staking and layout required for all construction operations. Staking shall be completed in conformance with Division 01.

2. Deviations Occasioned by Underground Facilities: Wherever significant obstructions not shown on the Drawings are encountered during the progress of the Work, CONTRACTOR shall proceed in accordance with the Contract to notify owners and protect the facilities. Existing items unnecessarily damaged during the performance of the Work shall be repaired and replaced at the expense of CONTRACTOR.
3. Prior to commencing pipe laying, CONTRACTOR shall notify ENGINEER of the intended date for starting Work. ENGINEER may request at CONTRACTOR's expense the removal and relaying of pipe which was installed prior to notification of ENGINEER.
    a. Proper implements, tools, and facilities shall be provided and used by CONTRACTOR for the safe and convenient prosecution of the Work. All pipe, fittings, and appurtenances shall be carefully lowered into the trench piece by piece with a crane, rope, or other suitable tools or equipment, in such manner as to prevent damage to materials. Under no circumstance shall pipe be dropped or rolled into the trench.
    b. Materials shall be as shown on the Drawings or as specified herein.
4. Material Inspection: CONTRACTOR shall inspect the pipe, fittings, and appurtenances for defects when delivered to the jobsite and prior to lowering into the trench. Defective material shall be removed from the jobsite. All material shall be clean and free of deleterious substances prior to use in the Work.
5. Except where noted or specified, all ductile iron underground piping shall be laid in accordance with AWWA C600 with the conditions that (a) blocking shall not be used to support pipe and (b) all bends and fittings shall be restrained as specified below, and pipe joints shall be restrained in all directions from all bends and fittings to the length as specified below.
6. Pipe Length:
    a. The minimum length of pipe to be restrained on each side of the fitting shall be as shown in the following table and on the Drawings.
    b. This table assumes horizontal orientation of fittings, 150 psi test pressure, poly-wrapped ductile iron pipe, SM soil, a safety factor of 2, Type 5 trench conditions. and a 5-foot bury. Lengths shall be adjusted for other conditions and fittings. For other fittings and for more specific requirements, see the Drawings:

REQUIRED LENGTH OF RESTRAINED PIPE BEYOND FITTING IN FEET

Fitting	12-INCH	10-INCH	8-INCH	6-INCH	Notes
12" x __" Tee	52'	18'	5'	5'	Along branch
10" x __" Tee		33'	5'	5'	Along branch
8" x __" Tee			16'	5'	Along branch
12" x __" Reducer		38'	68'	92'	Along 12"
10" x __" Reducer			36'	66'	Along 10"
8" x __" Reducer				38'	Along 8"
Horiz. Bend 11.25°	4'	3'	3'	2'	Each direction
Horiz. Bend 22.5°	7'	6'	5'	4'	Each direction
Horiz. Bend 45°	13'	11'	10'	7'	Each direction
Horiz. Bend 90°	31'	27'	22'	17'	Each direction
Vert. Bend 11.25°	13', 2'	11', 2'	9', 2'	7', 2'	Upper bend, lower bend
Vert. Bend 22.5°	26', 4'	22', 4'	18', 3'	14', 3'	Upper bend, lower bend
Vert. Bend 45°	53', 9'	45', 7'	37', 6'	28', 5'	Upper bend, lower bend
Stub/Dead End	127'	107'	89'	68'	

7. Water main shall be installed in accordance with AWWA C600 for iron pipe. All plugs, caps, tees, hydrants, bends, and other fittings for water mains shall be provided with restrained joints.
8. PVC sewer piping shall be installed in accordance with ASTM D2321. Except where noted or specified, PVC piping shall be installed in accordance with ASTM D2774.
9. Except where noted or specified, reinforced concrete pipe shall be installed in accordance with ASTM C12 and Section 550 of the Standard Specifications.
10. Plumbing system shall be installed and tested in accordance with local and state plumbing code requirements
11. CONTRACTOR shall lay all gravity pipe to the line and grade shown on the Drawings with bell ends uphill wherever possible. If not possible, CONTRACTOR shall lay pipe to the line and grade shown on the Drawings with bell ends in the direction of laying. Water piping shall have a minimum of 5 1/2 feet of cover.
12. Any pipe or fittings cracked in cutting or handling or otherwise not free from defects shall not be used. Pipe must be kept clean of mortar, cement, clay, sand, or other material. When PVC piping is installed during hot weather, it shall be laid in the trench with slack or permitted to cool to ground temperature before it is cut to length for making final connections. PVC expansion joints shall be provided where needed.
13. At times when pipe laying is not in progress, the open ends of pipe shall be closed with plugs to prevent the entry of foreign material. Acceptable plugs include Foreman Nite Caps by APS, mechanical joint cap or plug, bladder plug, or test plug. All foreign material shall be removed from the pipe prior to acceptance.
14. The locations and elevations of existing piping and manholes are approximate. Where necessary, existing piping shall be exposed by CONTRACTOR to confirm location and elevation before installing new piping. Any changes in pipe location or elevation shall be approved by OWNER.
15. General Excavation:
    a. Pipe Laying:
        (1) All pipe shall be laid accurately to the line and grade as designated. Preparatory to making pipe joints, all surfaces of the portions of the pipe to be joined or of the factory made jointing material shall be clean and dry. Lubricants, primers, adhesives, and other joint material shall be used and installed as recommended by the pipe or joint manufacturer’s specifications. The jointing materials or factory fabricated joints shall then be placed, fitted, joined, and adjusted in such a workmanlike manner as to obtain the degree of watertightness specified. Pertinent specifications from the joint and pipe manufacturer which outline procedures to be followed in making the joint shall be furnished to ENGINEER.
        (2) Wyes, tees, and special fittings shall be installed as called for on the Drawings, or as requested by ENGINEER. Wyes, tees, and special fittings, shall, in general, be jointed with the same type of joint as used in the pipe.
        (3) In joining two dissimilar types of pipe, manufactured adapters and fittings shall be used. Adapters and fittings shall be configured to maintain invert elevations at same level.
        (4) Joint deflections shall not exceed the limits established by the pipe manufacturer for the pipe and joint being used.
        (5) Joints that are damaged because of carelessness, improper handling, or failure to prevent imperfections in manufacture shall be subject to rejection and gaskets shall be subject to rejection whenever they show surface cracking, tears, or splice separation.

(6) At times when pipe laying is not in progress, the open ends of pipe shall be closed with plugs to prevent the entry of foreign material. All foreign material shall be removed from the pipe prior to acceptance.

(7) After placing a length of pipe in the trench, the spigot end shall be centered in the bell and the pipe forced home and brought to correct line and grade. The pipe shall be secured in place with specified backfill material tamped around it except at the bells.

(8) Pipe shall be brought home by using a cross member and levers or jacks. It will not be permissible to push pipe home with motor powered excavation equipment.

(9) Water main shall be installed in accordance with AWWA C600 for iron pipe. All plugs, caps, tees, hydrants, bends, and other fittings for water mains shall be provided with restrained joints.

b. Sewer Service Branch and Lateral Installation:

(1) CONTRACTOR shall furnish and install sanitary sewer and storm sewer branches, laterals, and leads as shown on the Drawings or requested by ENGINEER. Under normal circumstances, service laterals will be installed within the right of way or easement to serve all existing buildings and all platted lots. In certain cases, only wye or tee branches will be installed to vacant lots. Service laterals shall consist of a branch fitting at the main and extension of the specified lateral pipe to the end of lateral as called for and requested. All necessary fittings shall be furnished and installed to complete the installation in accordance with Sections 33 and 54 of the SSWSC.

(2) Wye or tee branches: Wherever shown on the Drawings or requested by ENGINEER, wye or tee branches shall be provided for use in making sanitary sewer service and storm sewer inlet connections. Unless specified otherwise on the Drawings, wye or tee branches for sanitary sewer service lateral connections to single family residences shall be 4-inch diameter. All other sanitary sewer service lateral connections shall be 6 inches. Wye or tee branches for storm sewer inlet connections shall be of the size called for on the Drawings, 12 inches minimum.

(3) Sanitary sewer service branches shall be turned so that the branch is at an angle of 30 degrees or 45 degrees from the horizontal.

(4) Sanitary Sewer Service Laterals: Under normal conditions and unless otherwise shown on the Drawings or requested by ENGINEER, all service laterals shall be Standard Laterals, Type 1. Service laterals of Types 2 through 6 may be requested by ENGINEER to meet field conditions.

(5) It is the general intent to install Modified Laterals, Type 2, 4, or 5 for service to homes that presently have shallow or no basements or where the depth to groundwater at the end of lateral is shallow. Types 3 and 6 risers are only to be provided where shown on the Drawings.

(6) Installation and Testing Requirements: Except for those branches that are to be used on storm sewers or for extending sanitary sewer service laterals, wye and tee branches shall be closed with airtight stoppers blocked to withstand air test pressures.

(7) The ends of all laterals shall be plugged and blocked to resist air test pressures. All plugs shall be manufactured to fit the pipe used and shall be watertight.

(8) Unless otherwise provided for in the Drawings, each service lateral shall have a tracer wire installed from the main to the property line or the location of the connection to the existing service, whichever is greater or applicable.

The tracer wire shall be 10-gauge solid copper with no splices. The wire shall be secured to the pipe with duct tape at a minimum of 3-foot intervals. The ends of the tracer wire shall be brought to the ground surface and stored in an access terminal box, DWS–Tracer Wire Access Box, or equal, at a location selected by OWNER. Eighteen inches of additional wire length shall be coiled at the location of the terminal box. CONTRACTOR shall confirm the method of installation is compatible with OWNER's means of detecting the location of the service lateral. Each tracer wire shall be tested by CONTRACTOR to confirm it accurately provides the location and depth of the sewer lateral.

(9) A complete and accurate tabulation of length, depth, and location of all branches, risers, and laterals shall be kept by CONTRACTOR on cards available from ENGINEER. Measurements shall be made from the nearest downstream manhole. Lateral installation to meet these Standard Specifications and field conditions are the responsibility of CONTRACTOR. Problems occurring because of failure to provide proper installation or proper records shall be corrected by CONTRACTOR at its expense.

(10) No installed lateral shall be backfilled until ENGINEER has been notified that the lateral is complete and reasonable time is allowed for observation of the Work.

c. Water Service Lateral Installation:

(1) Water service laterals requiring reconstruction and new service laterals shall be installed in accordance with AWWA C600 and as shown on the Village of Oswego Standard Details. CONTRACTOR shall perform all excavation, backfill, and other Work necessary for a complete installation. The service tubing shall be continuous and shall be placed at a minimum depth of 5.5 feet. Each service shall include a corporation stop at the main, copper service tubing, curb stop, curb box, couplings, and all other appurtenances necessary for a complete installation. Corporation stops shall be 1-inch, 1 1/2-inch, or 2-inch compression fittings. Where existing services in the street are being reconstructed, the new service shall be connected to the existing service at the property line unless otherwise shown or specified. Taps in the main shall be at an angle of 45 degrees above the horizontal.

(2) OWNER reserves the right to make taps and connections to the new mains prior to backfilling by CONTRACTOR. CONTRACTOR shall delay backfilling until OWNER has completed its Work.

d. Manholes and Valve Vaults:

(1) Manholes and valve vaults shall be installed in accordance with Village of Oswego Standard Construction Details and Section 602 of the Standard Specifications. Manholes shall be plumb with any steps aligned and openings located over steps. For sanitary sewers, openings shall be located over the bench and not the sewer flow line itself.

(2) All manholes and valve vaults shall be made watertight and shall show no visible signs of leakage at the time of final review and within the correction period. Any leakage shall be sealed from the exterior of the manhole.

e. Abandoning Utilities: Utilities to be abandoned shall, unless otherwise noted on the Drawings**,** be abandoned in place. All removal of existing manholes, valve vaults, catch basins, and inlets shall conform to Section 605 of the Standard Specifications. Open ends of pressure pipes shall be capped with a mechanical joint cap. Open ends of sewer pipes shall be plugged with 12 inches of concrete. Manhole barrels, valve boxes and other such structures to be abandoned shall be

removed to a point 3 feet below existing or final ground surface, whichever is lower, and shall then be filled with backfill material compacted to that of the trench backfill. An approximate 9-inch-diameter opening shall be made in the bottom of the structure to allow for groundwater movement.

f. Connections to and Modifications of Structures and Mains:
   (1) Unless otherwise noted on the Drawings, openings in existing structures to allow for connection of mains shall be core drilled, and the mains themselves shall be connected by use of watertight connections as specified in the Standard Specifications. Flow channels in the bottoms of existing structures shall be modified as necessary to provide smooth transition for incoming flow and/or orientation of mains. These modifications may include breaking out and reforming flow channels.
   (2) Where mains, new and existing, are to intersect, dog house manholes shall be provided to facilitate connection and to gain access to the intersecting mains. Manholes shall be provided at the manufacturing plant with arched openings in lower barrel section to span each of the intersecting mains. Reinforcing shall be cut and bent back. In the field, manhole shall be set on concrete blocks, with reinforcing provided according to Village of Oswego Standard Details for the bottom slab. Concrete shall be poured under and around the manhole to seal all openings, cover and adhere to the slab and bent reinforcement, and provide for benches or fillets in the manhole. Sanitary and storm sewer mains shall be kept intact until the bench or fillet is poured. Then the top of pipe to springline shall be removed to provide access.

16. Line Stop and Insertion Valve:
   a. CONTRACTOR shall power wire brush and grind the exterior of the main to remove any debris, corrosion deposits, or other surface irregularities that might interfere with proper seating and sealing of each line stop fitting against each main.
   b. CONTRACTOR shall fit saddle assemblies to main, thoroughly checking for proper fit to main.
   c. CONTRACTOR shall clean the exterior of the main at location of each line stop. If main is heavily corroded; or if utilities will interfere with fittings, support/reaction blocking, or equipment; move location up or downstream to structurally sound pipe.
      (1) CONTRACTOR shall verify pipe size and condition.
      (2) CONTRACTOR shall place approved concrete thrust restraints and supports as necessary.
   d. After construction is completed on the water main, CONTRACTOR is responsible for removal of all equipment and any appurtenances not left in place permanently.
17. Pressure Connection:
   a. CONTRACTOR shall install tapping sleeves, tapping saddles, and tapping valves in accordance with the manufacturer’s instructions. Tapping procedure is to be in accordance with the tapping machine manufacturer's instructions.
   b. After installation of the tapping sleeve, tapping saddle, and tapping valve, all external bolts, except the operating nut, shall be protected as described herein before being backfilled. If polyethylene is applied to the pipe, the entire valve shall be encased in the polyethylene encasement prior to backfill. Polyethylene encasement shall be installed up to the operating nut leaving the operating nut exposed and free to be operated.

c. CONTRACTOR shall perform a hydrostatic test of the tapping sleeve and valve assembly as described herein after installation of the tapping sleeve and valve, but prior to making the tap. The test shall be made with the valve open using a tapped mechanical joint cap. No leakage is acceptable. Test pressure shall be maintained for a minimum of 15 minutes. Close the valve, remove the cap, and observe for leakage at the valve seal. No leakage is acceptable. Perform hydrostatic test of tapping saddles in accordance with AWWA Standard C800.

18. Valve Boxes: The valve box shall be centered and plumb over the wrench nut of the valve, with the box cover flush with the finished ground elevation. Solid 4-inch concrete blocks shall be placed under the base of valve boxes so that the bottom of the base is approximately 2 inches away from contact with the valve bonnet. The valve box shall not transmit shock or stress to the valve.

3.02 FIELD QUALITY CONTROL

A. CONTRACTOR shall include the cost of all televising, testing, cleaning, and disinfection in the price bid.

B. Work shall be tested as specified in this section. Unless indicated in writing before testing begins, tests shall be witnessed by ENGINEER and others as necessary. Test results shall be recorded, and reports or appropriate certificates shall be submitted to ENGINEER in triplicate.

C. New piping shall be tested. Prior to conducting the pressure and leakage test, CONTRACTOR shall backfill the trench for its full depth. All bends and special connections to the main shall be adequately blocked and tied prior to the test. Any damage caused to the main or its appurtenances during performance of these tests shall be corrected by CONTRACTOR at its expense. Should underground piping fail test, CONTRACTOR shall be responsible for removal and replacement of backfill, and relay new pipe if necessary, to repair the defective pipe. Under no circumstances shall defects be sealed from the interior of the pipe, and only where specifically allowed by ENGINEER, shall defects be sealed from the exterior of the pipe. Piping, interior or exposed, shall be subject to test before being covered with insulation or paint. Piping and appurtenances shall be watertight or airtight and free from visible leaks. Manholes and precast reinforced concrete wet wells and appurtenances shall be free of any visible leaks. Any leakage shall be sealed by methods acceptable to OWNER, from the exterior of the manhole or structure. Precast reinforced concrete manhole risers and tops shall be tested in accordance with ASTM C497.

D. Piping shall be flushed or blown out after installation prior to testing. CONTRACTOR shall provide all necessary piping connections, water, air, test pumping equipment, water meter, bulkheads, valves, pressure gauge and other equipment, materials, and facilities necessary to complete the specified tests. CONTRACTOR shall provide all temporary sectionalizing devices and vents for testing.

E. All testing shall be performed before curb and gutter or other permanent-type surface improvement work begins.

F. OWNER and ENGINEER shall be notified at least 24 hours before tests.

G. Pressure Tests:
   1. Pressure tests shall be performed as required by AWWA C600 and AWWA C605, unless otherwise noted herein.
   2. When test medium for piping is water, all air shall be removed from piping by flushing, opening vents, loosening flanges, utilizing equipment vents and/or installation of corporations at high points in system. Test pumping equipment used shall be centrifugal pumps or other pumping equipment that will not place shock pressures on the main. Power plunger pumps will not be permitted for use on closed pipe systems. Pumps shall be disconnected during test periods. Presence or absence of air will be determined during pressurization of the piping system.
   3. Water main test pressure shall be held for two hours, during which time the leakage allowance shall not exceed that specified in the SSWSC. In case repairs are required, the pressure test shall be repeated until the pipeline installation conforms to the specified requirements. Pumps, air compressors, instrumentation, and similar equipment shall not be subjected to the pressure tests.
   4. During performance of the hydrostatic pressure test, water main shall be subjected to a minimum pressure of 150 psi.
   5. CONTRACTOR shall keep a record of all tests performed. These records shall show the individual lengths of main tested and test results.
   6. Where connections are made to existing mains, it shall be the responsibility of CONTRACTOR to provide the necessary hydrostatic tests on all new mains installed. This may necessitate, but is not limited to, the installation of temporary valves and restraint to isolate the new system from the existing system. All materials, Work, and equipment necessary for this Work shall be furnished by CONTRACTOR at its expense.
   7. All testing of pipelines shall proceed concurrently with installation. CONTRACTOR is encouraged to conduct daily preliminary testing of its Work.
   8. Water from disinfection testing shall not be discharged to a stream, creek, river, storm sewer tributary thereto, or to a navigable water without first neutralizing the chlorine residual in the water and complying with local, state, and federal laws thereto.
   9. Gauges used for testing shall have increments as follows:
      a. Tests requiring a pressure of 10 psi or less shall use a testing gauge having increments of 0.10 psi or less.
      b. Tests requiring a pressure of greater than 10 psi by less than or equal to 100 psi shall use a testing gauge having increments of 1 psi or less.
      c. Tests requiring a pressure of greater than 100 psi shall use a testing gauge having increments of 2 psi or less.

Fluid Abbreviation or Name	Minimum Test Pressure in psi	Test Medium	Leakage Allowance Designation*
Water Main Piping	150	Water	“A”

* Leakage allowance designation “A” shall mean not more than 0.002 gallons per hour per inch diameter per 100 feet of buried pipe for all piping except buried mechanical joint or push-on joint pipe. Buried mechanical and push-on joint pipe shall meet the leakage specifications of AWWA C600.

H. Prior to making final connection between new and existing piping, new piping shall be tested as specified above.

I. Infiltration/Exfiltration Tests: Air and leakage testing of storm sewers, and repair of sanitary sewers will not be required.

J. Continuity Testing: CONTRACTOR shall provide all equipment, labor, and materials necessary to perform continuity testing of all ductile iron water mains installed. Tests shall be performed using an ohmmeter to demonstrate that electrical continuity exists across all joints. CONTRACTOR shall make all necessary repairs to establish continuity across joints.

3.03 CLEANING AND DISINFECTION

A. All equipment and materials shall be clean before installation. CONTRACTOR shall disinfect and flush the potable water system before it is put online. Water main shall be disinfected according to AWWA C651.

B. In accordance with the requirements of AWWA C651, at least one set of samples shall be collected from every 1,200 feet of new water main, plus one set from the end of the line and at least one set from each branch.

C. CONTRACTOR shall obtain water samples and arrange for analysis of water in potable systems for bacteria in accordance with Option A of Section 5.1 of AWWA C651. Copies of test results shall be submitted to OWNER and ENGINEER.

D. CONTRACTOR shall furnish all water and other materials, equipment, and labor necessary to disinfect all new water mains and all existing water mains disturbed by construction. CONTRACTOR shall notify OWNER to observe disinfection test and shall coordinate and bear cost for necessary laboratory testing and shall provide safe bacteriological sample results to OWNER prior to placing the water main in service. Sampling and testing shall be scheduled to complete the Work within the Contract Times. Items of material for testing shall be furnished in the size and quantity necessary to properly complete the test. Interruption or delay of CONTRACTOR's Work progress caused by testing and sampling shall not be cause for extra payment under the Contract nor shall they be cause for extension of Contract Time.

E. Water main shall be disinfected according to the Standard Specifications for Water and Sewer Main Construction in Illinois, which shall include initial flush and disinfection to 50 ppm with gaseous chlorine or other acceptable methods. Acceptable concentration after 24 hours shall be 25 ppm. Satisfactory disinfection shall be demonstrated in accordance with the requirements of 35 Ill. Adm. Code 652.203.

F. Broken concrete, rubble fill, and other excess material shall be removed from the site and wasted.

G. All waste disposal areas and all areas used for the storage of materials or the temporary deposit of excavated earth shall be leveled off, cleaned up, and returned to condition that existed prior to construction.

H. All surplus material, tools, and equipment shall be removed, and the premises shall be left free of everything of the kind.

3.04 CLEANUP

A. Upon completion of the work, all improvements disturbed by CONTRACTOR's operations shall be repaired or replaced. Broken concrete, rubble fill, and other excess material shall be removed from the site and wasted.

B. All areas used for the storage of materials or the temporary deposit of excavated earth shall be leveled off and cleaned up. All surplus material, tools, and equipment shall be removed, and the premises shall be left free of everything of the kind.

C. All pipes and manholes shall be flushed until clean, and all debris and mud shall be removed.

3.05 DEMOLITION

A. All exterior piping removals, including manholes and appurtenances and abandonment, shall be by CONTRACTOR. The locations and elevations of existing piping are approximate. Where necessary, existing piping shall be exposed before installing new piping. Any changes in pipe location or elevation shall be reviewed by ENGINEER.

B. CONTRACTOR shall remove or abandon all existing piping and appurtenances as noted. Unless otherwise shown or specified, OWNER shall have the right of first refusal of all piping and appurtenances to be removed, Whatever is not claimed by OWNER shall become the property of CONTRACTOR and shall be removed from the site for salvage or disposal. Unless otherwise shown or specified, piping shown or specified to be abandoned shall have each end plugged with concrete or nonshrink grout. Nonshrink grout shall be as specified in Division 02. Wherever excavations cross piping to be abandoned, piping shall be removed to the limits of the excavation and the ends shall be filled as specified above.

C. Valve boxes and exposed valves and operators on piping to be abandoned shall be removed. All concrete surfaces to remain shall be patched as required to provide a smooth surface. Repiping and connections to new piping shall be as specified for new piping.

END OF SECTION

SECTION 33 05 23.13

PIPELINE INSTALLED BY BORING

PART 1–GENERAL

1.01 SUMMARY

A. This section covers the installation of a casing and a carrier pipe by open cut.

1.02 RELATED SECTIONS

A. Section 31 23 00–Excavation, Fill, Backfill, and Grading.

B. Section 33 00 10–Buried Piping and Appurtenances.

C. Applicable provisions of Division 01 shall govern work in this section.

1.03 MEASUREMENT AND PAYMENT

A. Water Main in Casing, of size specified, including the carrier pipe, shall be paid for at the Contract unit price per linear foot. The unit price shall include all casing pipe, carrier pipe, casing end seals, casing insulators, strapping, skids, anchors, harnesses, etc. as required or as necessary for installation.

1.04 REFERENCES

A. The applicable provisions of the following standards shall apply as if written here in their entirety:
   1. AASHTO–American Association of State Highway and Transportation Officials.
   2. ASTM–American Society of Testing and Materials.
   3. AWWA–American Water Works Association.

1.05 SUBMITTALS

A. Submit shop drawings in accordance with Section 01 33 00–Submittals for all products and materials herein described.

PART 2–PRODUCTS

2.01 MATERIALS AND/OR EQUIPMENT

A. Casing Pipe:
   1. Steel Pipe: Unless noted otherwise on the Drawings, encasement pipe shall be welded steel pipe with the wall thickness as shown on the Drawings. The inside surface of the casing shall be free from burrs or other projections which could damage the carrier pipe. Field cut casing pipe ends shall be ground smooth. Encasement pipe shall be welded steel pipe with the wall thickness as shown on the Drawings. If a minimum wall thickness

is not shown on the Drawings or Bid Form, the casing shall have a minimum wall thickness as follows:

Minimum Thickness	Diameter of Casing Pipe
1/4" (0.2500")	12" or less
5/16" (0.3125")	over 12" - 18"
3/8" (0.3750")	over 18" - 22"
7/16" (0.4375")	over 22" - 28"
1/2" (0.5000")	over 28" - 34"
9/16" (0.5625")	over 34" - 42"
5/8" (0.6250")	over 42" - 48"

2. The encasement pipe sizes shown are the minimum acceptable for the project unless shown otherwise on the Drawings. CONTRACTOR shall be responsible for providing casing materials that are of sufficient strength for the installation method chosen and for the soil conditions encountered. Casing shall be clean inside and outside with exception of minor rust and scale.
3. The welded steel casing pipe shall be leakproof and of adequate diameter and thickness to support all earth, live, and other loads imposed, and to permit installation of the carrier pipe to plan line and grade. Steel casing pipe shall be installed to within plus or minus 0.1 foot of designed grades.
4. PVC Pipe: CONTRACTOR may use PVC casing pipe in lieu of steel casing pipe where approved by OWNER. PVC casing pipe shall conform to AWWA C900/905 and have an SDR of 25.

B. Casing Spacers: Casing spacers shall be designed to guide and support the carrier pipe in the casing. They shall be made of stainless steel and shall be manufactured by Cascade Waterworks, or approved equal. The spacer shall be sized such that the bell of the carrier pipe will be held a minimum of 1/4-inch from the bottom of the casing, and the spacer O.D. shall not be less than the casing I.D. minus 3/4-inch. The design and type of spacer shall be suitable for the type, size, and weight of the carrier pipe and its contents.

C. Casing Seals: Casing seals shall be manufactured rubber seals for the size of casing specified, fastened to the casing and carrier pipe with stainless steel bands.

PART 3–EXECUTION

3.01 ERECTION / INSTALLATION / APPLICATION AND/OR CONSTRUCTION

A. Installing Carrier Pipe in Casing:
1. Casing spacers shall be installed on the carrier pipe: The spacers shall be installed in accordance with the pipe manufacturer's recommendations to prevent the pipe from bearing on the bells, to position the pipe within the casing, and to prevent floating within the casing if the casing is filled with water. Casing spacers shall be installed such that the distance between the spacers does not exceed the maximum distance recommended by the manufacturer of the carrier pipe and by the spacer manufacturer dependent on potential weight of the carrier pipe full of water, except the distance between spacers shall not exceed 5 feet. A casing spacer shall be installed within 1 foot of the end of each joint of nonwelded carrier pipe, and two adjacent spacers shall be

installed on the carrier pipe at each end of the casing such that the last spacer is within 1 foot of the end of the casing.

2. Lubricants such as flax soap or drilling mud may be used when installing the carrier pipe. No petroleum products shall be used for this purpose. After installation is completed on the carrier pipe, the ends of the casing shall be sealed with a mechanical casing seal.

B. Casing Seals: Casing seals shall be securely installed at each end of the casing in accordance with the manufacturer's written installation instructions.

END OF SECTION

GEOTECHNICAL REPORT

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ENGINEERING INC.

REPORT TRANSMITTAL

October 10, 2024

To: Jennifer Hughes, PE
Village of Oswego
100 Parkers Mill Place
Oswego, IL 60543

Re: **Geotechnical Engineering Services Report**
Brookside Water Main Replacement
Various Streets
Oswego, Illinois

Rubino Report No. G24.150

Via email: jhughes@oswegoil.org, Tony.Spinelli@strand.com

Dear Ms. Hughes,

Rubino Engineering, Inc. is pleased to submit our Geotechnical Engineering Services Report for the proposed Brookside Water Main Replacement project in Oswego, Illinois.

Report Description

Enclosed is the Geotechnical Engineering Services Report including results of field and laboratory testing, as well as recommendations for utility installation and general site development.

Authorization and Correspondence History

- Rubino Proposal No. Q24.402g dated August 12, 2024; Signed and authorized by Dan Di Santo, Village Administrator for the Village of Oswego, on August 13, 2024.

Closing

Rubino appreciates the opportunity to provide geotechnical services for this project and we look forward to continued participation during the design and in future construction phases of this project.

If you have questions pertaining to this report, or if Rubino may be of further service, please contact our office at (847) 931-1555.

Respectfully submitted,
RUBINO ENGINEERING, INC.

Michelle A. Lipinski, PE
President

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MAL/file/ Enclosures

Geotechnical Engineering Services Report

Drilling
Laboratory Testing
Geotechnical Analysis

BROOKSIDE WATER MAIN REPLACEMENT

VARIOUS STREETS

OSWEGO, ILLINOIS

RUBINO PROJECT NO. G24.150

PREPARED BY:
JONATHAN IGNARSKI

REVIEWED BY:
DAVID T. LEWANDOWSKI, PE

rubino ENGINEERING INC.

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Michelle A. Lipinski, PE
President
IL No. 062-061241, Exp. 11/30/2025

PREPARED FOR:

VILLAGE OF OSWEGO

100 PARKERS MILL PLACE

OSWEGO, IL 60543

OCTOBER 10, 2024

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PROJECT INFORMATION

Rubino Engineering, Inc. (Rubino) understands that Strand is in the process of designing a replacement water main for the Village of Oswego along Forest and Judson Avenues, Benton, Hickory, Locust, and Monroe Streets in Oswego. The replacement water main is a Class 52 ductile iron pipe, designed to be installed at depths ranging from approximately 6 to 8½ feet below existing grade.

Documents received:

- RFP Document – "Request for Geotech Proposal&Encl" prepared by Strand

Project Correspondence:

- RFP email from Tony Spinelli, Strand Associates, Inc. on August 5, 2024 .
- Email from Tony Spinelli, Strand Associates, Inc. on October 3, 2024 – invert depth range

The geotechnical recommendations presented in this report are based on the available project information and the subsurface materials described in this report. If any of the information on which this report is based is incorrect, please inform Rubino in writing so that we may amend the recommendations presented in this report (if appropriate, and if desired by the client). Rubino will not be responsible for the implementation of our recommendations if we are not notified of changes in the project.

Purpose / Scope of Services

The purpose of this study was to explore the subsurface conditions at the site in order to prepare geotechnical recommendations for utility installation and general site development for the proposed construction. Rubino's scope of services included the following drilling program:

Table 1: Drilling Scope

NUMBER OF BORINGS	NUMBER OF CORES	DEPTH (FEET BEG*)	LOCATION
16	7	12 ½	See Boring & Coring Location Plan

*BEG = below existing grade

Representative soil samples obtained during the field exploration program were transported to the laboratory for additional classification and laboratory testing.

This report briefly outlines the following:

- *Summary of client-provided project information and report basis*
- *Overview of encountered subsurface conditions*
- *Overview of field and laboratory tests performed including results*

  - *Seasonal High Groundwater Reading based on 24-hour groundwater testing*
- *Geotechnical recommendations pertaining to:*
  - *Subgrade preparation and stability recommendations*
  - *Utility Installation and backfill recommendations*
  - *Trench box lateral earth pressures*
  - *Dewatering*
- *Construction considerations, including temporary excavation and construction control of water*

DRILLING, FIELD, AND LABORATORY TEST PROCEDURES

Strand Associates, Inc. selected the number of borings and the boring depths. Rubino located the borings in the field by measuring distances from known fixed site features. The borings were advanced utilizing 3 ¼ and 2 ¼ inch inside-diameter, hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. The pavement cores were performed with a Milwaukee Drill and Diamond-bit core barrel.

Selected soil samples were tested in the laboratory to determine material properties for this report. Drilling, sampling, and laboratory tests were accomplished in general accordance with ASTM procedures. The following items are further described in the Appendix of this report.

- *Field Penetration Tests and Split-Barrel Sampling of Soils (ASTM D1586)*
- *Field Water Level Measurements*
- *Laboratory Determination of Water (Moisture) Content of Soil by Mass (ASTM D2216)*

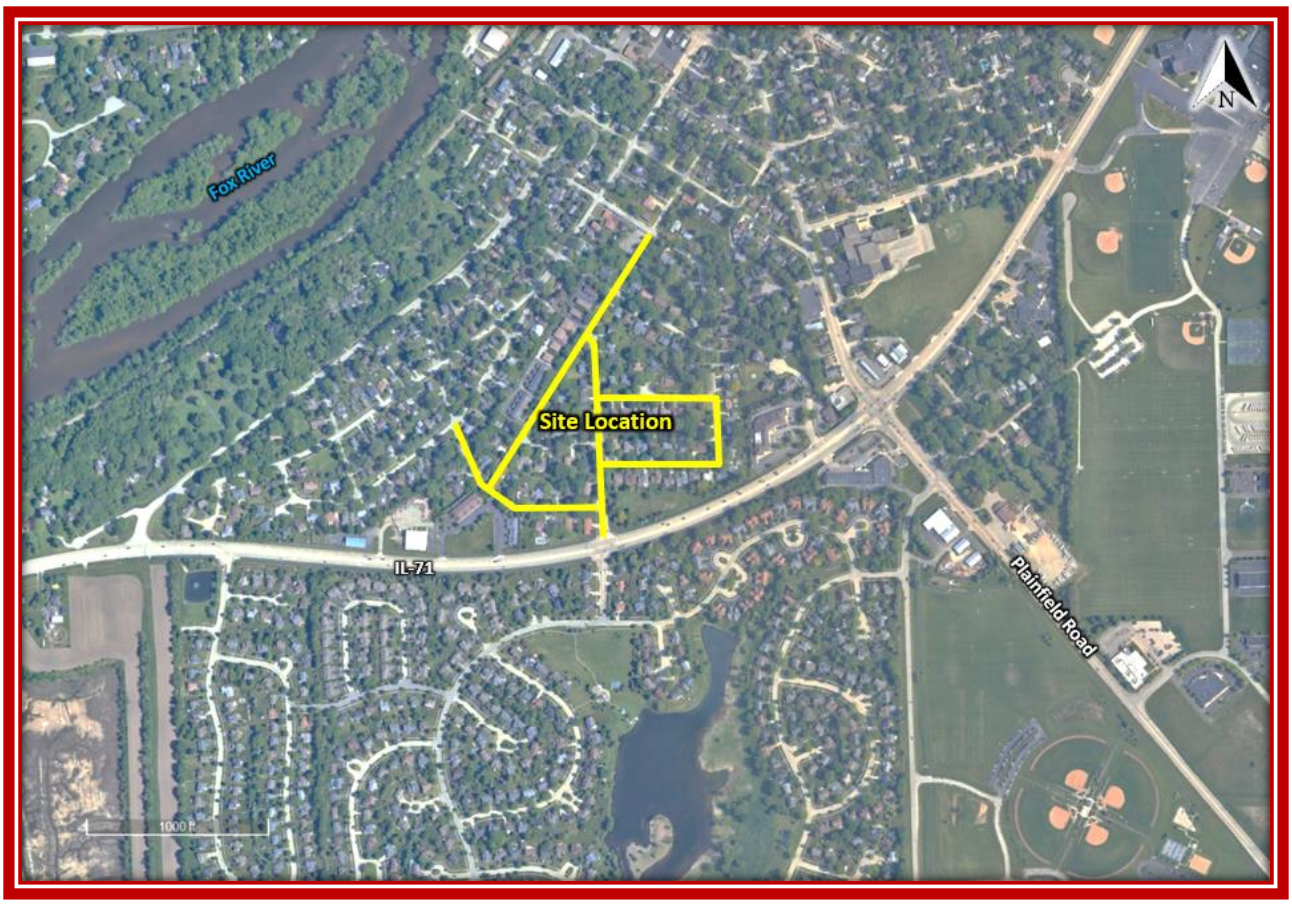
The laboratory testing program was conducted in general accordance with applicable ASTM specifications. The results of these tests are to be found on the accompanying boring logs located in the Appendix.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The Brookside Water Main Replacement project is located along Forest Ave, Judson Ave, Benton St, Hickory St, Locust St, and Monroe St in Oswego, Illinois.

The midpoint of the project site has an approximate latitude and longitude of 41.677152° and -88.353624°, respectively.



Surface Conditions

Cores were taken within the existing pavement of some of the streets included in this project. The surface conditions for these cores are as follows:

Table 2: Existing Pavement Section Summary

CORE NUMBER / LOCATION	TOTAL OBSERVED PAVEMENT THICKNESS	TOTAL OBSERVED BASE STONE THICKNESS
B-02 (Judson Avenue)	8 INCHES OF ASPHALT	6 INCHES OF GRAVEL FILL
B-05 (Hickory Street)	4 INCHES OF ASPHALT	14 INCHES OF GRAVEL FILL
B-07 (Benton Street)	6 ½ INCHES OF ASPHALT	7 ½ INCHES OF GRAVEL FILL
B-08 (Locust Street)	3 INCHES OF ASPHALT	13 INCHES OF GRAVEL FILL
B-10 (Forest Avenue)	4 ½ INCHES OF ASPHALT	9 ½ INCHES OF GRAVEL FILL
B-11 (Hickory Street)	3 INCHES OF ASPHALT	17 INCHES OF GRAVEL FILL
B-13 (Monroe Street)	3 INCHES OF ASPHALT	15 INCHES OF GRAVEL FILL

Please note that the above referenced thicknesses are considered approximate and based on visual observations and hand measurements. Pavement and sub-base type and thickness may vary between core locations.

Subsurface Conditions

Beneath the existing surficial pavement and gravel fill, subsurface conditions generally consisted of undocumented fill, possible fill, brown, black, and/or gray silty clay, and brown to gray sand and gravel.

- The **undocumented fill** soils were generally cohesive in nature
- The native **silty clay observed** in the upper 10 feet of the soil borings was generally soft to stiff in consistency
  - Very stiff silty clays were encountered at deeper depths in some of the borings
- The **granular** soils were generally loose to dense in apparent density

Table 3: Subsurface Conditions Summary

APPROXIMATE DEPTH RANGE (FEET BEG*)	SOIL DESCRIPTION	SPT N-VALUES (BLOWS PER FOOT)	MOISTURE CONTENT (%)	ESTIMATED SHEAR STRENGTH
1 – 3 ½	FILL and *Possible Fill / Buried Topsoil*	4 - 27	11 – 27	---
1 – 3 ½	FILL: brown sandy gravel, with fines and roots *(B-14)*	50+	7	---
1 – 3 ½	Loose, brown well-graded SAND, with gravel *(B-03)*	9	7	$\phi \cong 29°$
1 – 6	Medium stiff to stiff, brown or gray silty CLAY *(B-01, B-02, B-03, B-04, B-09, B-12)*	5 – 11	20 – 28	$c \cong 750$ – 1,650 psf
3 ½ - 8 ½	Soft to medium stiff, black, dark brown, and/or dark gray silty CLAY *(B-05, B-06, B-07, B-08, B-10, B-11, B-14, B-15)*	2 – 7	25 – 36	$c \cong 300$ – 1,000 psf
6 – 8 ½	Very soft, brown and gray silty CLAY, trace sand and gravel *(B-11)*	0	27	---
3 ½ - 12 ½	Loose to dense, brown / gray well-graded SAND, GRAVEL, or silty SAND	7 – 45	5 – 25	$\phi \cong 28 – 38°$
8 ½ – 12 ½	Stiff to very stiff, gray silty CLAY	12 – 23	12 – 26	$c \cong 1{,}800$ – 3,450 psf

*BEG = Below existing grade

The native soils were visually classified as silty clay (CL), sand-silt mixtures (SM), well-graded sand (SW), and well-graded gravel (GW) according to the Unified Soil Classification System

(USCS). The above table is a general summary of subsurface conditions. Please refer to the boring logs for more detailed information.

Estimated shear strength of clay soils is based on empirical correlations using N-values and moisture content, as applicable.

Groundwater Conditions

Groundwater was encountered in some of the borings during drilling operations. Based on the saturation of soils, and the color change of the soils from brown to gray, Rubino anticipates that seasonal high groundwater levels may be encountered at shallower depths than at the time of drilling operations. The following table summarizes groundwater observations from the field and Rubino's estimates for potential seasonal high groundwater tables:

Table 4: Groundwater Observation Summary

Boring Number	Boring Location	Approximate Groundwater Level during drilling (feet BEG*)	Approximate Groundwater Level upon auger removal (feet BEG*)	Estimated Seasonal High Groundwater Level (Feet BEG*)
B-01	Judson Avenue	N/A	N/A	N/A
B-02	Judson Avenue	N/A	N/A	N/A
B-03	Judson Avenue	11	N/A	11
B-04	Forest Avenue	6	N/A	6
B-05	Hickory Street	8 ½	7 ½	7
B-06	Hickory Street	6	5	5
B-07	Benton Street	8 ½	8 ½	6
B-08	Locust Street	6	5	5
B-09	Locust Street	6	6	6
B-10	Forest Avenue	6	6	6
B-11	Hickory Street	8 ½	7	7
B-12	Monroe Street	N/A	N/A	N/A
B-13	Monroe Street	11	N/A	11
B-14	Monroe Street	6	N/A	6
B-15	Monroe Street	6	N/A	6
B-16	Forest Avenue	6	6	6

*BEG = below existing grade

It should be noted that fluctuations in the groundwater level should be anticipated throughout the year depending on variations in climatological conditions and other factors not apparent at the time the borings were performed. Groundwater may not have been observed in some areas due to the low permeability of soils. Additionally, discontinuous zones of perched water may exist within the soils. The possibility of groundwater level fluctuation should be considered when developing the design and construction plans for the project.

When bidding this project, the contractor should anticipate that groundwater will be present during excavation.

Undocumented Fill Discussion

Undocumented fill and possible fill was observed in some of the borings to depths of approximately 3½ feet below existing grade.

Deleterious materials were not observed within the undocumented fill materials during the drilling operations. Deleterious materials could impede horizontal drilling equipment or excavation if encountered. Although deleterious materials were not encountered in all the undocumented fill materials, this does not eliminate the possibility that deleterious materials could be present within the undocumented fill materials at other locations along the project.

Undocumented fill is defined as fill that has been placed without being documented as to its placed density and moisture content.

Deleterious materials could include, but are not limited to, bricks, asphalt, concrete, metal, wood, or other building debris.

SUMMARY OF GEOTECHNICAL CONSIDERATIONS

The main geotechnical design and construction considerations at this site are:

- In general, the **asphalt thicknesses** observed at core locations ranged between approximately 3 and 8 inches. See the *Surface Conditions* section for more information.
- In general, the **gravel fill thicknesses** observed at core locations ranged between approximately 6 and 17 inches. See the *Surface Conditions* section for more detailed information.
- **Subgrade soils** generally consisted of undocumented fill, possible fill, brown, black, and/or gray silty clay, and brown to gray sand and gravel. See the *Subsurface Conditions* and *Undocumented Fill Discussion* sections for more detailed information.
- **Subgrade soils at proposed bearing depths** were soft/loose in some of the borings and may need additional bedding stone to support the proposed water main. See *Utility Installation Considerations* for more detailed information.
- **Shallow Groundwater** was observed within some of the borings during drilling operations. See the *Groundwater Conditions* and *Dewatering Recommendations* sections for more information.
- **Internally braced trench boxes** will be needed to support the open cut construction in areas where soils with low blow counts and/or high moisture contents and loose saturated granular materials were encountered within the borings. See the *Trench Box Excavation Recommendations* and *Lateral Earth Pressures* sections for more information.

The geotechnical-related recommendations in this report are presented based on the subsurface conditions encountered and Rubino's understanding of the project. Should changes in the project criteria occur, a review must be made by Rubino to determine if modifications to our recommendations will be necessary.

EVALUATION AND RECOMMENDATIONS

The geotechnical-related recommendations in this report are presented based on the subsurface conditions encountered and Rubino's understanding of the project. Should changes in the project criteria occur, a review must be made by Rubino to determine if modifications to our recommendations will be necessary.

Utility Installation Considerations

Based on the information from the client, Rubino anticipates that the proposed water main inverts will bear between approximately 6 and 8 ½ feet below existing grade. The silty clay and sands were soft/loose in some of the borings at that elevation range and may need additional bedding stone for support.

Rubino recommends that the water main be supported by a granular bedding material similar to the gradation of an IDOT CA-07 stone. The thickness of the bedding material should be at least 6 inches. An undercut and backfill replacement of additional bedding stone may be needed areas of softer soils such as near borings B-05 and B-11. Fine grained soils may need to be confined by a mud mat or lean concrete in the presence of groundwater.

The following geotechnical considerations should be taken into account when considering either trenching or trenchless techniques performed as part of this project:

Table 5: Geotechnical Considerations for Utility Installation

BORING NUMBERS	APPROXIMATE DEPTH RANGE (FEET BEG*)	SOIL CONSIDERATIONS
B-01, B-02, and B-03	1 – 12 ½	▪ Highly permeable, large-grained granular soils that are not self-supporting ▪ Free groundwater observed at ~11 feet BEG in boring B-03 ▪ Possible cobbles / boulders encountered that could make excavation difficult
B-04 through B-12	1 – 3 ½	▪ Undocumented Fill and Possible Fill / Buried Topsoil ▪ Possible cobbles / boulders encountered that could make excavation difficult

BORING NUMBERS	APPROXIMATE DEPTH RANGE (FEET BEG*)	SOIL CONSIDERATIONS
	3 ½ - 8 ½	▪ Low strength, dark colored silty clay soils with elevated moisture contents that may require additional bedding stone to support the proposed water main ▪ Free groundwater observed at ~6 to 8½ feet BEG
	6 – 12 ½	▪ Highly permeable, large-grained granular soils that are not self-supporting ▪ Possible cobbles / boulders and very dense granular soils encountered that could make excavation difficult

*BEG = below existing grade

Please note, problematic soils may be encountered at other locations or depths for this project and therefore, trench boxes should be anticipated for the entire project. Lateral earth pressures should be considered when using trench boxes or other shoring methods for the excavations.

Utility Installation and Backfill Recommendations

If granular material is used for the backfill of the utility trench, the **granular material should have a gradation that will filter protect the backfill material from the adjacent soils**. If this gradation is not available, a geosynthetic non-woven filter fabric should be used to reduce the potential for the migration of fines into the backfill material. Granular backfill material shall be compacted to meet the following compaction criteria.

Structural fill placed in utility trenches shall be evaluated in accordance with the following table:

MATERIAL TESTED	PROCTOR TYPE*-1	MIN % DRY DENSITY	PLACEMENT MOISTURE CONTENT RANGE	FREQUENCY OF TESTING*-2	MAXIMUM LOOSE LIFT HEIGHT
Utility Trench Backfill	Standard	95%	-2 to +2 %	1 per 200 LF of fill placed	4 – 6 inches

*-1 The test frequency for the laboratory reference shall be one laboratory Proctor test for each material used on the site. If the borrow or source of fill material changes, a new reference moisture/density test should be performed.

*-2A minimum of one test per lift is recommended unless otherwise specified.

In general, utility trench backfill materials should:

- Have a Standard Proctor maximum dry density greater than 100 pcf
- Be free of organic or other deleterious materials
- Have a maximum particle size no greater than 3 inches

- Each lift of compacted, engineered fill should be tested and documented by a representative of the geotechnical engineer prior to placement of subsequent lifts
- Soils classified as GP, GW, SP, and SW will generally be suitable for use as utility trench backfill.
- Soils classified as CL, ML, SC, SM, OL, OH, MH, CH, and PT should be considered unsuitable.
- If water must be added, it should be uniformly applied and thoroughly mixed into the soil

Tested fill materials that do not achieve either the required dry density or moisture content range shall be recorded, the location noted, and reported to the Contractor and Owner. A re-test of that area should be performed after the Contractor performs remedial measures. The above test frequencies should be discussed with the contractor prior to starting the work.

The geotechnical engineer of record can only certify work that was performed under their direct observation, or under the observation of a competent person under their specific direction.

Trench Box Excavation Recommendations

Soils in the upper 10 feet consisted of low to moderate shear strength silty clay and large-grained cohesionless soils that will likely need to be supported during open trench excavation.

Excavation for trenches shall be performed in accordance with OSHA regulations as stated in 29 CFR Part 1926. Within those regulations, OSHA created a classification of soils in decreasing order of stability. According to the OSHA classification method of soils, Rubino expects that the soils acting on the trench boxes would classify as Type A, Type B, and Type C soils. The soil profile consisted of alternating layers of silty clay and sand/gravel.

If open cut construction is planned for this project, trench boxes should be used throughout the installation of the water main and lateral earth pressures should be considered for the excavations.

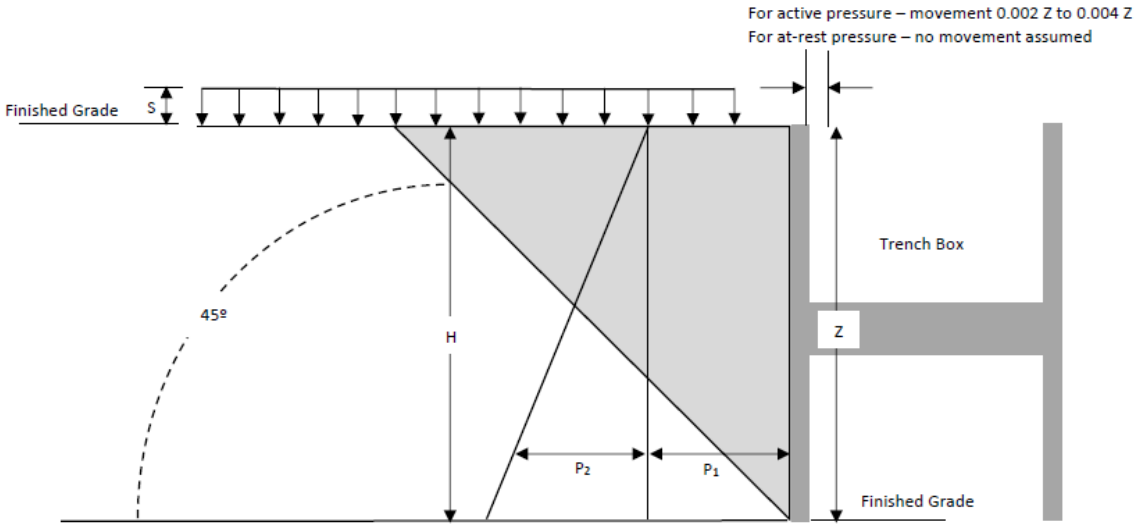
Lateral Earth Pressures

Lateral earth pressures will be influenced by the conditions of wall or support restraint, methods of construction and/or compaction and the strength of the materials being restrained.

Lateral earth pressure is developed from the soils present within a wedge formed by the vertical below-grade wall and an imaginary line extending up and away from the bottom of the wall at an approximate 45° angle.

The lateral earth pressures are determined by multiplying the vertical applied pressure by the appropriate lateral earth pressure coefficient K. Rubino recommends designing the bracing for the temporary excavation for the water main for the “at-rest” lateral earth pressure condition using K_o.

Earth Pressure Coefficients



The following table provides the recommended "at-rest" lateral earth pressure coefficients for the soils encountered. Also included are the "active" lateral earth pressure coefficients if needed.

Table 6: "K-Factor" Lateral Earth Pressures

APPROXIMATE DEPTH RANGE (FEET BEG*)	SOIL TYPE	ESTIMATED TOTAL UNIT WEIGHT (LB/FT^3)	FRICTION ANGLE (DEG)	K_O	K_A
1 – 3 ½	FILL / Possible Fill	110 – 115	25°	0.58	0.41
3 ½ - 8 ½	Soft to medium stiff silty CLAY	115 – 125	26°	0.56	0.39
1 – 6 8 ½ - 12 ½	Stiff to very stiff silty CLAY	125 – 135	28°	0.53	0.36
6 – 8 ½	Very soft silty CLAY	110 – 115	25°	0.58	0.41
1 – 3 ½ 8 ½ - 11	Loose SAND	120 – 125	28°	0.53	0.36
3 ½ - 12 ½	Dense to very dense SAND / GRAVEL	135 – 140	30°	0.50	0.33

*BEG = below existing grade
**For soils below the groundwater table, subtract 62.4 pcf from the total unit weight to obtain the buoyant of effective unit weight

The following equations were used to calculate the earth pressure coefficients "k".

At-Rest:	$k_o = 1 - \sin\phi$	If the walls are rigidly attached to the structure and not free to rotate or deflect at the top such as shallow tunnels
Active:	$k_a = \tan^2(45 - \frac{\phi}{2})$	Walls that are permitted to rotate and deflect at the top

Conditions applicable to the above conditions include:

- For active earth pressure, wall must rotate about base, with top lateral movements 0.002Z to 0.004Z, where Z is the wall height
- Uniform surcharge, where S is surcharge pressure
- Hydrostatic Pressure designed to elevations as recommended herein
- No safety factor included

Dewatering Recommendations

Dewatering will likely be necessary during excavation of soils due to the presence of shallow groundwater encountered in some of the borings. Other factors that may affect dewatering are; precipitation, surficial runoff, and the presence of sand seams or other conditions not apparent at the time of drilling. Shoring or trench boxes may be required where the soils are granular, saturated, or have low shear strengths. Please reference the anticipated groundwater levels on the attached boring logs and in the *Groundwater Conditions* section of this report.

Recommendations for Additional Testing

During construction, Rubino recommends that one of our representatives be onsite for typical **observations and documentation** of exposed subgrade for trench excavation, including penetrometer testing and trench backfill compaction testing, as necessary.

CLOSING

The recommendations submitted are based on the available subsurface information obtained by Rubino Engineering, Inc. and design details furnished by Village of Oswego for the proposed project. If there are any revisions to the plans for this project or if deviations from the subsurface conditions noted in this report are encountered during construction, Rubino should be notified immediately to determine if changes in the recommendations are required. If Rubino is not retained to perform these functions, we will not be responsible for the impact of those conditions on the project.

The scope of services did not include an environmental assessment to determine the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater or air on, below, or around this site. Any statements in this report and/or on the boring logs regarding odors, colors, and/or unusual or suspicious items or conditions are strictly for informational purposes.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At this time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of Village of Oswego and their consultants for the specific application to the proposed Brookside Water Main Replacement project in Oswego, Illinois.

Appendix A – Drilling, Field, and Laboratory Test Procedures

ASTM D1586 Penetration Tests and Split-Barrel Sampling of Soils

During the sampling procedure, Standard Penetration Tests (SPT's) were performed at regular intervals to obtain the standard penetration (N-value) of the soil. The results of the standard penetration test are used to estimate the relative strength and compressibility of the soil profile components through empirical correlations to the soils' relative density and consistency. The split-barrel sampler obtains a soil sample for classification purposes and laboratory testing, as appropriate for the type of soil obtained.

Water Level Measurements

Water level observations were attempted during and upon completion of the drilling operation using a 100-foot tape measure. The depths of observed water levels in the boreholes are noted on the boring logs presented in the appendix of this report. In the borings where water is unable to be observed during the field activities, in relatively impervious soils, the accurate determination of the groundwater elevation may not be possible even after several days of observation. Seasonal variations, temperature and recent rainfall conditions may influence the levels of the groundwater table and volumes of water will depend on the permeability of the soils.

Ground Surface Elevations

At this time, no site-specific elevations were available to Rubino. The depths indicated on the attached boring logs are relative to the existing ground surface for each individual boring at the time of the exploration. Copies of the boring logs are located in the Appendix of this report.

ASTM D2216 Water (Moisture) Content of Soil by Mass (Laboratory)

The water content is an important index property used in expressing the phase relationship of solids, water, and air in a given volume of material and can be used to correlate soil behavior with its index properties. In fine grained cohesive soils, the behavior of a given soil type often depends on its natural water content. The water content of a cohesive soil along with its liquid and plastic limits as determined by Atterberg Limit testing are used to express the soil's relative consistency or liquidity index.

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Appendix B – Report Limitations

Subsurface Conditions:

The subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data as well as water level information. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition between layers may be gradual. The samples, which were not altered by laboratory testing, will be retained for up to 60 days from the date of this report and then will be discarded.

Geotechnical Risk:

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools that geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free, and more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned. The engineering recommendations, presented in the preceding section, constitute Rubino's professional estimate of the necessary measures for the proposed structure to perform according to the proposed design based on the information generated and reference during this evaluation, and Rubino's experience in working with these conditions.

Warranty:

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

Federal Excavation Regulations:

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. This federal regulation mandates that all excavations, whether they be utility trenches, basement excavation or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person," as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. Rubino is providing this information solely as a service to our client. Rubino is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

Appendix C – Soil Classification General Notes

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1 3/8" I.D., 2" O.D., unless otherwise noted	PS:	Piston Sample
ST:	Thin-Walled Tube - 3" O.D., Unless otherwise noted	WS:	Wash Sample
PM:	Pressuremeter	HA:	Hand Auger
RB:	Rock Bit	HS:	Hollow Stem Auger
DB:	Diamond Bit - 4", N, B	BS:	Bulk Sample

Standard "N" Penetration: Blows per foot of a 140-pound hammer falling 30 inches on a 2-inch O.D. split spoon sampler (SS), except where noted.

WATER LEVEL MEASUREMENT SYMBOLS:
Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of ground water levels is not possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION:
Soil Classification is based on the Unified Soil Classification System as defined in ASTM D-2487 and D-2488. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; they are described as: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: clays, if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse grained soils are defined on the basis of their relative in-place density and fine-grained soils on the basis of their consistency. Example: Lean clay with sand, trace gravel, stiff (CL); silty sand, trace gravel, medium dense (SM).

CONSISTENCY OF FINE-GRAINED SOILS:

Unconfined Compressive Strength, Qu (tsf)			N-Blows/ft.			Consistency
	<	0.25	< 2			Very Soft
0.25	-	0.5	2	-	4	Soft
0.5	-	1	4	-	8	Medium Stiff
1	-	2	8	-	15	Stiff
2	-	4	15	-	30	Very Stiff
4	-	8	30	-	50	Hard
>	-	8	> 50			Very Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

N-Blows/ft.			Relative Density
0	-	3	Very Loose
4	-	9	Loose
10	-	29	Medium Dense
30	-	49	Dense
50	-	80	Very Dense
		80+	Extremely Dense

RELATIVE PROPORTIONS OF SAND & GRAVEL

Descriptive Term	% of Dry Weight		
Trace		<	15
With	15	-	29
Modifier		>	30

RELATIVE PROPORTIONS OF FINES

Descriptive Term	% of Dry Weight		
Trace		<	5
With	5	-	12
Modifier		>	12

*Descriptive Terms apply to components also present in sample

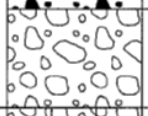
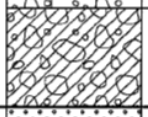
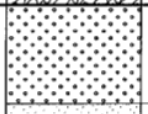
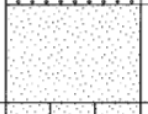
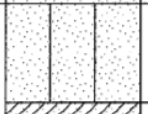
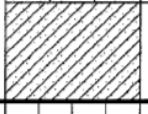
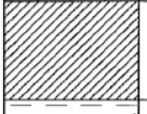
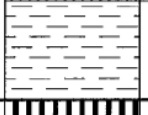
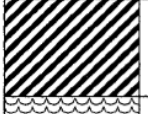
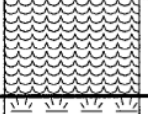
GRAIN SIZE TERMINOLOGY

Major Component	Size Range
Boulders	Over 12 in. (300mm)
Cobbles	12 in. To 3 in. (300mm to 75mm)
Gravel	3 in. To #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 sieve (4.75mm to 0.75mm)

Appendix D – Soil Classification Chart

SOIL CLASSIFICATION CHART

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS: GRAPH	SYMBOLS: LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

Appendix E – Site Vicinity Map and Boring & Coring Location Plan

rubino ENGINEERING INC.

425 Shepard Drive
Elgin, Illinois 60123

Project Name:	**Brookside Water Main Replacement**
Project Location:	Varioius Streets Oswego, Illinois
Client:	**Village of Oswego**
Rubino Project # :	G24.150

Site Vicinity Map

rubino ENGINEERING INC.

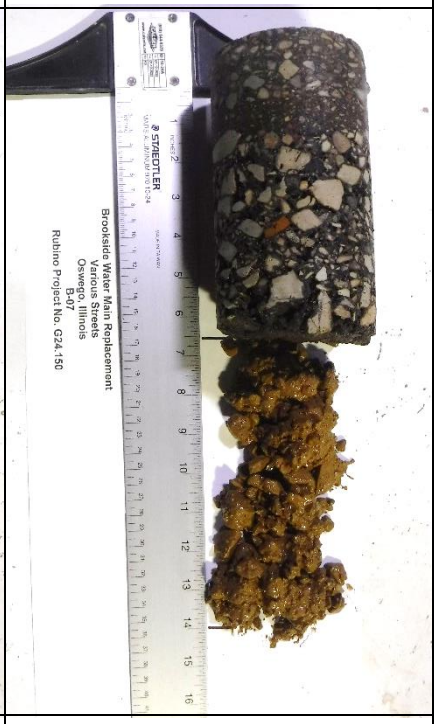
425 Shepard Drive
Elgin, Illinois 60123

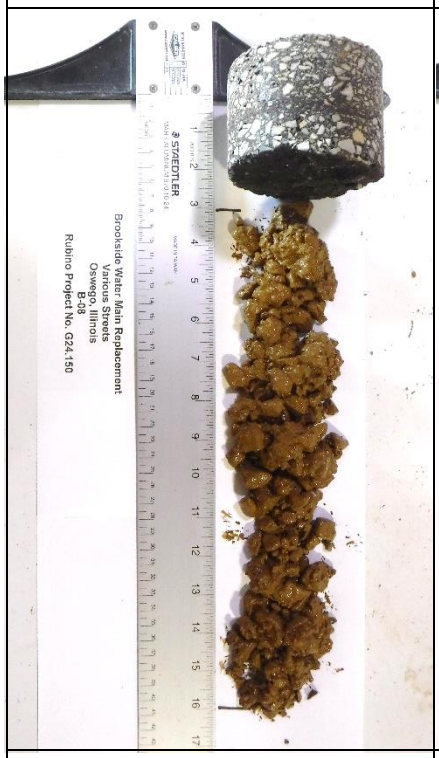
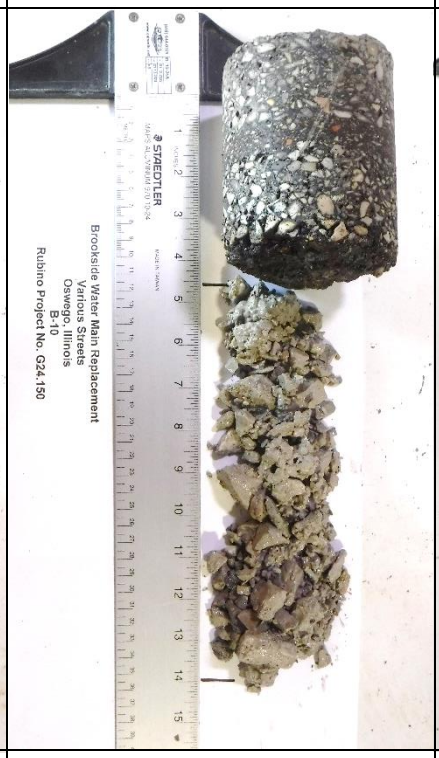
Project Name:	**Brookside Water Main Replacement**
Project Location:	Varioius Streets Oswego, Illinois
Client:	**Village of Oswego**
Rubino Project # :	G24.150

Boring & Coring Location Plan

Appendix F – Pavement Core Summary Table

Cores were taken in the pavement of various streets in Oswego, Illinois. The table below summarizes the thicknesses observed in the field and laboratory.

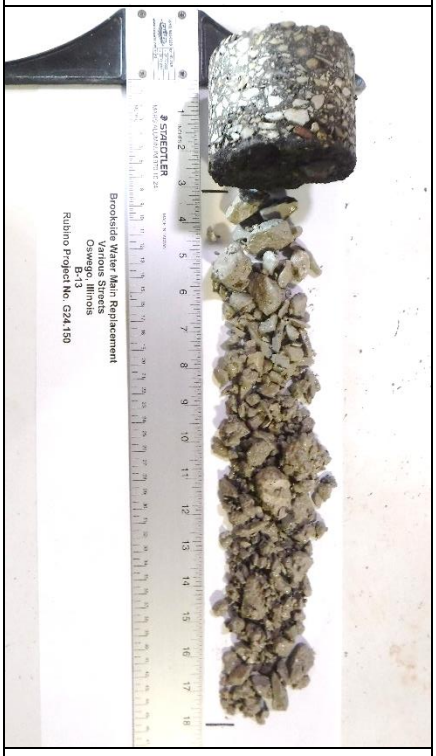
B - 02 (Judson Avenue)	B - 05 (Hickory Street)	B - 07 (E Benton Street)
		
Picture Taken Facing East	Picture Taken Facing East	Picture Taken Facing North
		
Total Thickness = 8 inches **HMA Surface$_1$ = 1 ½ in.** **HMA Binder$_1$ = 1 ½ in.** **HMA Surface$_2$ = 2 in.** **Weathering & Deterioration** **HMA Binder$_2$ = 3 in.** **Gravel Fill = 6 inches**	**Total Thickness = 4 inches** **HMA Surface$_1$ = 1 ½ in.** **HMA Leveling Binder$_1$ = ½ in.** **HMA Surface$_2$ = ¾ in.** **Weathering & Deterioration** **HMA Binder$_2$ = 1 ¼ in.** **Cracked, Weathered & Deteriorated** **Gravel Fill = 14 inches**	**Total Thickness = 6 ½ inches** **HMA Surface$_1$ = 1 ½ in.** **HMA Leveling Binder$_1$ = ½ in.** **HMA Binder$_2$ = 4 ½ in.** **Gravel Fill = 7 ½ inches**

B - 08 (Locust Street)	B - 10 (Forest Avenue)	B - 11 (Hickory Street)
		
Picture Taken Facing West	Picture Taken Facing South	Picture Taken Facing West
		
Total Thickness = 3 inches **HMA Surface$_1$ = 1 ½ in.** **HMA Leveling Binder$_1$ = ¼ in.** **HMA Binder$_2$ = 1 ¼ in.** **Gravel Fill = 13 inches**	**Total Thickness = 4 ½ inches** **HMA Surface$_1$ = 1 ¾ in.** **HMA Leveling Binder$_1$ = ¾ in.** **HMA Binder$_2$ = 2 in.** **Gravel Fill = 9 ½ inches**	**Total Thickness = 3 inches** **HMA Surface$_1$ = 1 ¾ in.** **HMA Leveling Binder$_1$ = ½ in.** **HMA Binder$_2$ = ¾ in.** **Gravel Fill = 17 inches**

B - 13

(Monroe Street)

Picture Taken Facing North



Total Thickness = 3 inches

HMA Surface$_1$ = 1 ½ in.
HMA Surface$_2$ = ¾ in.
HMA Binder$_1$ = ¾ in.
Subbase Stone = 15 inches

The referenced thicknesses are considered approximate. Commentary provided by Rubino is based on our observation in the laboratory; **Crack** = vertical through cross section; **Weathering** = rounded edges & degradation of asphalt and **Deterioration** = horizontal crack. Pavement and subbase type and thickness may vary between core locations. Any comments on the condition of the material are considered our opinion and should be verified by the design engineer.

Appendix G – Borings Logs

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-01

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Judson Avenue

WATER LEVELS***

While Drilling	N/A
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	STANDARD PENETRATION TEST DATA / STRENGTH, tsf	Additional Remarks
	0					Approximately 7 inches of ASPHALT					Background PID = 0.0 ppm
						Approximately 5 inches of GRAVEL FILL					
				1	1	Medium stiff, brown silty CLAY, trace to with gravel *Low recovery. Soils classified from auger cuttings.*	CL	4-3-4 N=7	23		PID = 0.1 ppm
				2	13	Medium dense, brown well-graded SAND, with gravel		4-12-13 N=25	8		PID = 0.0 ppm
	5			3	14		SW	12-8-10 N=18	6		PID = 0.0 ppm
				4	8			12-11-11 N=22	5		PID = 0.0 ppm
	10			5	5			6-7-9 N=16	6		PID = 0.1 ppm
						End of boring at approximately 12½ feet below existing grade.					

STANDARD PENETRATION TEST DATA: Moisture; PL; LL; 0; 25; 50
STRENGTH, tsf: Qu (Rimac); Qp/Qr; 0; 2.0; 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
- Auger Cutting
- Split-Spoon
- Rock Core
- Pressuremeter
- Shelby Tube
- Grab Sample
- No Recovery

Latitude: 41.6765733
Longitude: -88.3562421
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~6½ BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-02

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Judson Avenue

WATER LEVELS***

While Drilling	N/A
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 8 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 6 inches of GRAVEL FILL				
				1	10	Stiff, brown silty CLAY, with sand and gravel	CL	2-3-6 N=9	28	Qp=2.8 tsf PID = 0.0 ppm
				2	12	Medium dense to dense, brown well-graded SAND, with gravel		6-9-10 N=19	6	PID = 0.0 ppm
	5			3	17		SW	12-14-18 N=32	5	PID = 0.0 ppm
				4	0	*No recovery. Possible cobbles/boulders encountered. Soils classified from auger cuttings.*		12-14-19 N=33	4	PID = 0.0 ppm
	10			5	13	Very stiff, brown silty CLAY, with sand and gravel	CL	9-8-10 N=18	10	Qp=3.3 tsf PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6759676
Longitude: -88.3554284
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~7 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-03

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Judson Avenue

WATER LEVELS***
While Drilling 11 ft
Upon Completion N/A
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 7 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 5 inches of GRAVEL FILL				
				1	6	Loose, brown well-graded SAND, with gravel	SW	9-5-4 N=9	7	PID = 0.0 ppm
				2	14	Medium stiff, gray silty CLAY, trace sand and gravel	CL	2-2-3 N=5	25	Qp=2.0 tsf PID = 0.0 ppm
	5			3	10	Medium dense, brown and gray well-graded SAND, with gravel and fines	SW	4-6-12 N=18	11	PID = 0.1 ppm
				4	14	Loose to medium dense, brown well-graded SAND, trace gravel	SW	7-4-3 N=7	11	PID = 0.0 ppm
	10			5	8	*Color transitions from brown to gray at approximately 11 feet BEG*		7-10-12 N=22	15	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6759157
Longitude: -88.3543417
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~7 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-04

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Forest Avenue

WATER LEVELS***
While Drilling 6 ft
Upon Completion N/A
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 7 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 5 inches of GRAVEL FILL				
				1	12	Medium stiff, black silty CLAY, trace sand and gravel *Possible Fill / Buried Topsoil*	CL	3-4-3 N=7	27	Qp=2.8 tsf PID = 0.0 ppm
				2	13	Stiff, dark gray silty CLAY, trace sand, gravel, and roots	CL	3-4-7 N=11	24	Qp=0.5 tsf PID = 0.0 ppm
	5			3	9	Medium dense, gray well-graded sandy GRAVEL	GW	7-7-9 N=16	9	PID = 0.0 ppm
				4	18	Very hard, gray silty CLAY, with sand and gravel	CL	7-13-39 N=52	15	PID = 0.0 ppm
	10					Very dense, gray well-graded GRAVEL *Rock chips observed in spoon. Possible cobbles/boulders encountered. N-values may be elevated.*	GW			
				5	6	**Spoon refusal at approximately 11¾ feet below existing grade.** End of boring at approximately 11¾ feet below existing grade.		20-50/3"-	9	PID = 0.1 ppm

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 11.8 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6761083
Longitude: -88.3535857
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~6 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-05

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Hickory Street

WATER LEVELS***
While Drilling 8.5 ft
Upon Completion 7.5 ft
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 4 inches of ASPHALT Approximately 14 inches of GRAVEL FILL				Background PID = 0.0 ppm
				1	18	FILL: dark gray silty clay, trace sand and gravel		3-3-3 N=6	17	PID = 0.2 ppm Qp=1.3 tsf
				2	18	Medium stiff, brown and gray silty CLAY, trace sand, gravel, and roots	CL	1-1-3 N=4	35	Qp=0.5 tsf PID = 0.1 ppm
	5			3	18	Soft, gray silty CLAY, with interbedded sand lenses *Wood fibers observed*	CL	2-1-1 N=2	15	Qp=1.5 tsf PID = 0.2 ppm
				4	18	Medium dense, gray well-graded gravelly SAND	SW	6-7-5 N=12	14	PID = 0.0 ppm
	10			5	18	Very dense, gray sandy GRAVEL, with fines	GW	10-22-30 N=52	9	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL
0 25 50
STRENGTH, tsf
Qu (Rimac) Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6765378
Longitude: -88.3531267
Drill Rig: Geoprobe 3126GT
Remarks:
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-06

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Hickory Street

WATER LEVELS***

While Drilling	6 ft
Upon Completion	5 ft
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 8 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 6 inches of GRAVEL FILL				
				1	18	FILL: brown, black, and gray silty clay, trace sand and gravel		3-2-3 N=5	20	Qp=2.0 tsf PID = 1.1 ppm
				2	18	Soft, black and gray silty CLAY, trace sand, gravel, and roots	CL	1-1-1 N=2	26	Qp=0.8 tsf PID = 0.2 ppm
	5			3	18	Medium dense to dense, gray well-graded sandy GRAVEL, trace to with fines		8-7-8 N=15	15	PID = 0.1 ppm
				4	18		GW	9-9-9 N=18	11	PID = 0.2 ppm
	10			5	18			12-14-17 N=31	11	PID = 0.2 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6765929
Longitude: -88.3516669
Drill Rig: Geoprobe 3126GT
Remarks:
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-07

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Benton Street

WATER LEVELS***
While Drilling 8.5 ft
Upon Completion 8.5 ft
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 6½ inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 7½ inches of GRAVEL FILL				
				1	9	Stiff, black and dark brown silty CLAY, trace sand and gravel *Possible Fill / Buried Topsoil*	CL	3-4-6 N=10	25	Qp=2.5 tsf PID = 0.0 ppm
				2	6	Medium stiff, dark brown and dark gray silty CLAY, trace sand and gravel	CL	1-2-2 N=4	36	Qp=3.5 tsf PID = 0.0 ppm
	5			3	2	Medium stiff to stiff, dark gray and gray silty CLAY, trace sand and gravel *Low recovery. Soils classified from auger cuttings.*	CL	4-5-3 N=8	20	PID = 0.1 ppm
				4	14		CL	1-1-3 N=4	11	Qp=1.8 tsf PID = 0.0 ppm
	10			5	8	Dense, gray well-graded gravelly SAND, with fines	SW	18-12-22 N=34	8	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture PL LL
0 25 50
STRENGTH, tsf
Qu (Rimac) Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6771879
Longitude: -88.3512699
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~11 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-08

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Locust Street

WATER LEVELS***
While Drilling 6 ft
Upon Completion 5 ft
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 3 inches of ASPHALT Approximately 13 inches of GRAVEL FILL				Background PID = 0.0 ppm
				1	8	Medium stiff, black and gray silty CLAY, trace sand and gravel *Possible Fill / Buried Topsoil*	CL	2-3-4 N=7	17	PID = 0.2 ppm Qp=3.3 tsf
				2	4	Soft, dark gray silty CLAY, trace sand, gravel, and roots *Low recovery. Soils classified from auger cuttings*	CL	1-1-1 N=2	30	Qp=0.8 tsf PID = 0.1 ppm
	5			3	18	Medium dense to dense, gray well-graded sandy GRAVEL, trace to with fines		7-11-12 N=23	12	PID = 0.0 ppm
				4	18		GW	5-7-8 N=15	11	PID = 0.0 ppm
	10			5	18			7-12-22 N=34	12	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf
Qu (Rimac) ✳Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6775220
Longitude: -88.3519063
Drill Rig: Geoprobe 3126GT
Remarks:
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-09

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Locust Street

WATER LEVELS***

While Drilling	6 ft
Upon Completion	6 ft
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 6½ inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 9½ inches of GRAVEL FILL				
				1	10	Medium stiff to stiff, brown and gray silty CLAY, trace sand and gravel		8-5-4 N=9	24	PID = 0.0 ppm Qp=1.8 tsf
				2	18		CL	2-2-3 N=5	20	Qp=1.5 tsf PID = 0.0 ppm
	5			3	18	Medium dense, gray well-graded gravelly SAND, with fines		5-7-8 N=15	11	PID = 0.0 ppm
				4	18		SW	11-9-6 N=15	11	PID = 0.0 ppm
	10			5	18	Medium dense, gray well-graded sandy GRAVEL	GW	11-11-14 N=25	11	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL
0 25 50
STRENGTH, tsf
Qu (Rimac) Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6775192
Longitude: -88.3530647
Drill Rig: Geoprobe 3126GT
Remarks: Hole collapse at ~6 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-10

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Forest Avenue

WATER LEVELS***
While Drilling 6 ft
Upon Completion 6 ft
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 4½ inches of ASPHALT Approximately 9½ inches of GRAVEL FILL				Background PID = 0.0 ppm
				1	8	FILL: black, brown, and gray silty clay, with sand and gravel		4-2-2 N=4	13	Qp=1.5 tsf PID = 0.0 ppm
				2	12	Medium stiff, dark brown and dark gray silty CLAY, trace sand and gravel	CL	1-2-2 N=4	29	Qp=0.8 tsf PID = 0.0 ppm
	5			3	5	Medium dense, gray well-graded gravelly SAND, with fines	SW	8-10-10 N=20	12	PID = 0.0 ppm
				4	13			8-10-10 N=20	9	PID = 0.0 ppm
	10			5	12	Stiff, gray silty CLAY, with interbedded sand lenses	CL	7-2-10 N=12	26	Qp=2.5 tsf PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL
0 25 50
STRENGTH, tsf
Qu (Rimac) Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6771753
Longitude: -88.3536323
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~8½ BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-11

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Hickory Street

WATER LEVELS***
While Drilling 8.5 ft
Upon Completion 7 ft
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 3 inches of ASPHALT Approximately 17 inches of GRAVEL FILL				Background PID = 0.0 ppm
				1	5	Stiff, dark brown and black silty CLAY, trace and and gravel *Possible Fill / Buried Topsoil*	CL	5-5-6 N=11	16	PID = 0.0 ppm
				2	18	Very soft to soft, brown and gray silty CLAY, trace sand, gravel and roots		1-1-2 N=3	25	Qp=0.5 tsf PID = 0.0 ppm
	5			3	18		CL	0-0-0 N=0	27	Qp=1.0 tsf PID = 0.0 ppm
				4	18	Loose, gray fine-grained poorly-graded SAND, trace gravel	SP	3-3-5 N=8	25	PID = 0.0 ppm
	10			5	18	Dense, gray sandy GRAVEL, with fines	GW	18-21-24 N=45	10	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL
0 25 50
STRENGTH, tsf
Qu (Rimac) Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6767669
Longitude: -88.3545107
Drill Rig: Geoprobe 3126GT
Remarks:
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-12

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Monroe Street

WATER LEVELS***

While Drilling	N/A
Upon Completion	N/A
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 6 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 8 inches of GRAVEL FILL				
				1	8	Stiff, brown and gray silty CLAY, trace sand and gravel	CL	2-3-5 N=8	26	Qp=2.5 tsf PID = 0.0 ppm
				2	18	Medium dense, brown well-graded gravelly SAND, trace to with fines		5-7-8 N=15	12	PID = 0.0 ppm
	5			3	18		SW	9-13-13 N=26	7	PID = 0.0 ppm
				4	18			7-10-10 N=20	6	PID = 0.0 ppm
	10			5	18			10-11-10 N=21	5	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6765788
Longitude: -88.3555531
Drill Rig: Geoprobe 3126GT
Remarks: Hole collapse at ~9½ BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-13

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Monroe Street

WATER LEVELS***
While Drilling 11 ft
Upon Completion N/A
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 3 inches of ASPHALT Approximately 15 inches of GRAVEL FILL				Background PID = 0.0 ppm
				1	2	FILL: brown silty clay, with gravel *Low recovery. Soils classified from auger cuttings.*		5-10-17 N=27	11	PID = 0.0 ppm
				2	18	Medium dense, brown well-graded gravelly SAND, trace to with fines		7-6-7 N=13	5	PID = 0.0 ppm
	5			3	18		SW	8-8-8 N=16	8	PID = 0.0 ppm
				4	4	Medium dense, brown well-graded GRAVEL, trace sand	GW	7-5-7 N=12	10	PID = 0.0 ppm
	10			5	4	Medium dense, gray sandy GRAVEL	GW	5-4-13 N=17	12	PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf
Qu (Rimac) ✳Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6772527
Longitude: -88.3549888
Drill Rig: Geoprobe 3126GT
Remarks: Hole collapse at ~8 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-14

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 3 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Monroe Street

WATER LEVELS***
While Drilling 6 ft
Upon Completion N/A
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 6 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 10 inches of GRAVEL FILL				
				1	2	FILL: brown sandy gravel, with fines and roots *Possible cobbles/boulders encountered.No recovery. Soils classified from auger cuttings.*		50/2"--	7	>> PID = 0.8 ppm
				2	0	Soft, dark gray silty CLAY, trace sand and gravel *No recovery. Soils classified from auger cuttings.*	CL	2-2-1 N=3	24	PID = 0.1 ppm
	5									
				3	18	Medium dense, gray silty SAND, with gravel	SM	2-2-10 N=12	13	PID = 0.0 ppm
				4	18			6-11-7 N=18	11	PID = 0.0 ppm
	10									
				5	18	Very stiff, gray silty CLAY, with interbedded sand lenses	CL	5-12-11 N=23	13	Qp=4.5 tsf PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture ◎ PL LL
0 25 50
STRENGTH, tsf
▲ Qu (Rimac) ✳Qp/Qr
0 2.0 4.0

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: H.G.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6778427
Longitude: -88.3544168
Drill Rig: Geoprobe 3126GT
Remarks: Hole collapse at ~7 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-15

Rubino Job No.: G24.150
Project: Brookside Water Main Replacement
Location: Various Streets
City, State: Oswego, Illinois
Client: Village of Oswego

Drilling Method: 2 ¼ Hollow Stem Auger
Sampling Method: Split Spoon
Hammer Type: Automatic
Boring Location: Monroe Street

WATER LEVELS***
While Drilling 6 ft
Upon Completion N/A
Delay N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 5 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 7 inches of GRAVEL FILL				
				1	1	FILL: dark brown silty clay, trace sand and gravel *Low recovery. Soil classified from auger cuttings.*		6-3-4 N=7	15	PID = 0.1 ppm
				2	2	Medium stiff, black and dark brown silty CLAY, trace sand and gravel *Low recovery. Soil classified from auger cuttings.*	CL	1-3-2 N=5	26	Qp=1.3 tsf PID = 0.2 ppm
	5			3	5	Medium dense, gray well-graded gravelly SAND	SW	10-10-8 N=18	7	PID = 0.0 ppm
				4	14	Very stiff, gray silty CLAY, trace sand and gravel	CL	10-8-12 N=20	8	Qp=4.5 tsf PID = 0.0 ppm
	10			5	8			7-8-9 N=17	12	Qp=4.5 tsf PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth: 12.5 ft
Date Boring Started: 10/3/24
Date Boring Completed: 10/3/24
Logged By: P.P.
Drilling Contractor: Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6788226
Longitude: -88.3536155
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~6 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING B-16

Rubino Job No.:	G24.150
Project:	Brookside Water Main Replacement
Location:	Various Streets
City, State:	Oswego, Illinois
Client:	Village of Oswego
Drilling Method:	2 ¼ Hollow Stem Auger
Sampling Method:	Split Spoon
Hammer Type:	Automatic
Boring Location:	Forest Avenue

WATER LEVELS***

While Drilling	6 ft
Upon Completion	6 ft
Delay	N/A

Station: N/A
Offset: N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	Classification	SPT Blows per 6-inch	Moisture, %	Additional Remarks
	0					Approximately 6 inches of ASPHALT				Background PID = 0.0 ppm
						Approximately 6 inches of GRAVEL FILL				
				1	0	Medium stiff, black and dark brown silty CLAY, trace sand and gravel *Possible Fill / Buried Topsoil* *Low recovery. Soils classified from auger cuttings.*	CL	2-3-4 N=7	27	PID = 0.0 ppm
				2	13	Medium stiff, brown and gray silty CLAY, trace sand and gravel	CL	2-3-4 N=7	33	Qp=1.3 tsf PID = 0.0 ppm
	5			3	5	Dense, gray well-graded sandy GRAVEL	GW	6-9-29 N=38	15	PID = 0.0 ppm
				4	10	Medium stiff, gray silty CLAY, trace sand and gravel	CL	7-3-2 N=5	12	Qp=1.0 tsf PID = 0.0 ppm
	10			5	15	Very stiff, pinkish-gray silty CLAY, trace sand and gravel	CL	5-10-11 N=21	12	Qp=4.5 tsf PID = 0.0 ppm
						End of boring at approximately 12½ feet below existing grade.				

STANDARD PENETRATION TEST DATA
Moisture, PL, LL (0, 25, 50)
STRENGTH, tsf: Qu (Rimac), Qp/Qr (0, 2.0, 4.0)

Completion Depth:	12.5 ft
Date Boring Started:	10/3/24
Date Boring Completed:	10/3/24
Logged By:	P.P.
Drilling Contractor:	Rubino Engineering, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Pressuremeter
Shelby Tube
Grab Sample
No Recovery

Latitude: 41.6780127
Longitude: -88.3536977
Drill Rig: Geoprobe 7822DT
Remarks: Hole collapse at ~8 BEG after
Log Entry: J. Ignarski
Checked By: J. Ignarski

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

IEPA LPC-662

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Source Site Certification
by Owner or Operator
for Use of Uncontaminated Soil as Fill in a
CCDD or Uncontaminated Soil Fill Operation
LPC-662

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by source site owners and operators to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(A), that soil (i) was removed from a site that is not potentially impacted property and is presumed to be uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Brookside Water Main Replacement Office Phone Number, if available: _____

Physical Site Location (Street, Road): Judson, Forest, Hickory, Benton, Locust, Monroe. See attached Summary Report.

City: Oswego State: IL Zip Code: 60543 County: Kendall

Township: _____

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.67717 (Decimal Degrees) Longitude: - 88.35363 (-Decimal Degrees)

Identify how the lat/long data were determined:

○ GPS ○ Map Interpolation ○ Photo Interpolation ○ Survey ○ Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Village of Oswego	Name:	
Street Address:	100 Parkers Mill Place	Street Address:	
PO Box:		PO Box:	
City:	Oswego State: IL	City:	State:
Zip Code:	60543 Phone:	Zip Code:	Phone:
Contact:	Jennifer Hughes, PE	Contact:	
Email, if available:	jhughes@oswegoil.org	Email, if available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Brookside Water Main Replacement Latitude: 41.67717 Longitude: -88.35363

Source Site Certification

III. Descriptions of Current and Past Uses of Source Site

Describe the current and past uses of the site and nearby properties.* Attach additional information as needed. The description must take into account, at a minimum, the following for the source site and for nearby property: (1) use of the properties for commercial or industrial purposes; (2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons; (3) the current or past presence of any storage tanks (above ground or underground); (4) any waste storage, treatment or disposal at the properties; (5) any reported releases or any environmental cleanup or removal of contaminants; (6) any environmental liens or governmental notification of environmental violations; (7) any contamination in a well that exceeds the Board's groundwater quality standards; (8) the use, storage, or disposal of transformers or capacitors manufactured before 1979; and (9) any fill dirt brought to the properties from an unknown source or site.

Number of pages attached: 39

Prior to a site investigation, an Environmental Database Review (EDR) was conducted for the project area. Based on the EDR sixteen (16) soil samples (B-01 through B-16) were collected through out the project area and were tested for pH. Refer to attached Summary Letter.

*The description must be sufficient to demonstrate that the source site is not potentially impacted property, thereby allowing the source site owner or operator to provide this certification.

IV. Soil pH Testing Results

Describe the results of soil pH testing showing that the soil pH is within the range of 6.25 to 9.0 and attach any supporting documentation.

Number of pages attached: 1

All sixteen (16) samples were collected and tested for pH. Results were within the range of 6.25 to 9.0 except for sample B-03 which had a pH of 9.2. Please refer to pH Results in Appendix A.2

V. Source Site Owner, Operator or Authorized Representative's Certification Statement and Signature

In accordance with the Illinois Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I Anthony Tomaras - Rubino Engineering, Inc. (owner, operator or authorized representataive of source site) certify that this site is not a potentially impacted property and the soil is presumed to be uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. I further certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. Additionally, I certify that I am either the site owner or operator or a duly authorized representative of the site owner or site operator and am authorized to sign this form. Furthermore, I certify that all information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

○ Owner ⊘ Owner's Duly Authorized Representative ○

Anthony Tomaras - Rubino Engineering, Inc.
Printed Name

10/10/24
Date

Anthony Tomaras
Signature

rubino ENGINEERING INC.

ENVIRONMENTAL SUMMARY REPORT

October 10, 2024

To: Jennifer Hughes, PE
Village of Oswego
100 Parkers Mill Place
Oswego, IL 60543

Re: **CCDD Testing Summary Report**
Brookside Water Main Replacement
Various Streets
Oswego, Illinois

Rubino Report No. G24.150

Via email: jhughes@oswegoil.org, Tony.Spinelli@strand.com

Dear Ms. Hughes,

Rubino Engineering, Inc. (Rubino) is pleased to submit the following report to provide a summary of the CCDD testing for the above referenced project.

This report contains the following:

- *Summary of Environmental Database Review*
- *Summary of field and laboratory tests performed*
- *Summary of laboratory test results*
- *Illinois Environmental Protection Agencies LPC 662 Certificate*

ENVIROMENTAL DATABASE REVIEW

The project site is located along various streets in Oswego, Illinois. A map of the project location can be found in **Appendix A.1**. Prior to a site investigation, an Environmental Database Review (EDR) was conducted and the report is included as **Appendix A.3**. After reviewing the EDR report, Rubino. did not find any records of potentially impacted properties in close proximity to the project site that posed an environmental risk.

Based on the fact there were no records of potentially impacted properties in close proximity to the project site that posed an environmental risk, it was determined the project site is not a “potentially impacted property” and therefore only pH sampling of the project site was necessary.

Certification Limits

The LPC 662 Certification Limits include the following locations in Oswego, Illinois.

- **Judson Avenue** from S Madison Street to approximately 500 feet west of Forest Avenue
  - ***Excludes Judson Avenue from Forest Avenue to approximately 500 feet west of Forest Avenue***
- **Forest Avenue** from IL-71 to Monroe Street
- **Hickory Street** from Monroe Street to Benton Street
- **Benton Street** from Hickory Street to Locust Street
- **Locust Street** from Benton Street to Forest Avenue

- **Monroe Street** from Judson Avenue to Wilson Place

SOIL SAMPLING

On October 4, 2024, Rubino mobilized to the project site to collect soil samples. The sampling locations can be found in **Appendix A.1**. Sixteen (16) soil samples (B-01 through B-16) were collected to an approximate depth of 12½ feet below existing grade. The sixteen (16) samples were submitted for pH testing at Rubino.

RESULTS

Lab analysis found that the soil samples were within the allowable pH range of 6.25 to 9.0. **Except for sample B-03 which had a pH of 9.2.** The pH lab analysis results and complete reports can be found in **Appendix A.2**.

PID readings for samples B-06 (1.1 ppm) and B-14 (0.8 ppm) were recorded as above background.

Based on the results of the laboratory testing performed, an **IEPA LPC #662 (CCDD) Certificate was issued** for the site excluding part of Judson Avenue. The soils excavated from the exclusion zone during construction activity can be managed in the following ways:

- Perform proper testing and obtain completed Waste Characterization form for disposal of at a "Subtitle D" Municipal Solid Waste Landfill

- Delineation tests can be performed to reduce the exclusion zones

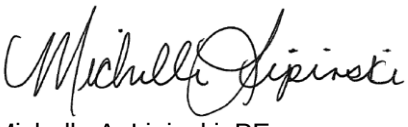
CLOSING

Rubino appreciates the opportunity to provide Clean Construction Demolition Debris (CCDD) services for this project and we look forward to continued participation during the design and in future construction phases of this project.

If you have questions pertaining to this summary report, or if Rubino may be of further service, please contact our office at (847) 931-1555.

Respectfully submitted,

RUBINO ENGINEERING, INC.



Michelle A. Lipinski, PE
President
michelle.lipinski@rubinoeng.com
MAL/file/ Enclosures

Appendix Contents

APPENDIX A.1 – SITE MAPS

rubino ENGINEERING INC.

425 Shepard Drive
Elgin, Illinois 60123

Project Name:	**Brookside Water Main Replacement**
Project Location:	Various Streets Oswego, Illinois
Client:	**Village of Oswego**
Rubino Project # :	G24.150

CCDD Testing Plan

APPENDIX A.2 – pH RESULTS

ASTM D4972-01
Standard Test Method for pH of Soils

rubino ENGINEERING INC.

		Date:	9-Oct-24
Project Number:	G24.150	**Performed by:**	Holly Gregorich
Project Name:	Brookside Water Main Replacement	**Title:**	Staff Geologist
		Signature:	Holly Gregorich
City, State:	Oswego, Illinois	**Client:**	Village of Oswego
Method Used:	ASTM D4972-01 Method A Calcium Chloride Solution (0.01M)	**Client Address:**	100 Parkers Mill Place Oswego, Illinois 60543
pH Meter Mfgr:	Ohaus Corporation	**Prior Calibration:**	5/7/24 @ 2:30pm
Model #	ST Series PH Analysis Pen	**Calibration:**	7/22/24 @ 10:30am

Location	Sample Type	Mass of Soil (g)	pH in Calcium Chloride Solution	pH in Distilled Water
B-01	Grab	10	8.4	8.8
B-02	Grab	10	8.1	8.4
B-03	Grab	10	8.3	9.2
B-04	Grab	10	8.1	8.6
B-05	Grab	10	8.3	8.7
B-06	Grab	10	8.4	8.9
B-07	Grab	10	8.0	8.4
B-08	Grab	10	8.3	8.9
B-09	Grab	10	8.3	8.6
B-10	Grab	10	8.3	8.97
B-11	Grab	10	8.2	8.9
B-12	Grab	10	8.3	8.9
B-13	Grab	10	8.4	8.9
B-14	Grab	10	8.3	8.9
B-15	Grab	10	8.3	8.9
B-16	Grab	10	8.0	8.5

APPENDIX A.3– ERIS DATABASE REPORT

DATABASE REPORT

Project Property:	*41.6769348290875, -88.35365634000594 W* *41.6769348290875, -88.35365634000594* *Oswego IL 60543*
Project No:	
Report Type:	*Screen Report Plus*
Order No:	*24100900475*
Requested by:	*Bluff City Materials, Inc*
Date Completed:	*October 9, 2024*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:		*41.6769348290875, -88.35365634000594W* *41.6769348290875, -88.35365634000594 Oswego IL 60543*
Project No:		
Coordinates:		
	Latitude:	*41.6769348*
	Longitude:	*-88.3536563*
	UTM Northing:	*4,614,792.78*
	UTM Easting:	*387,326.91*
	UTM Zone:	*16T*
Elevation:		*637 FT*

Order Information:

Order No:	*24100900475*
Date Requested:	*October 9, 2024*
Requested by:	*Bluff City Materials, Inc*
Report Type:	*Screen Report Plus*

Historicals/Products:

ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*

Executive Summary: Report Summary

Database	Searched	Project Property	Within 0.250mi	Total
Standard Environmental Records				
Federal				
NPL	Y	0	0	0
PROPOSED NPL	Y	0	0	0
DELETED NPL	Y	0	0	0
SEMS	Y	0	0	0
ODI	Y	0	0	0
SEMS ARCHIVE	Y	0	0	0
CERCLIS	Y	0	0	0
IODI	Y	0	0	0
CERCLIS NFRAP	Y	0	0	0
CERCLIS LIENS	Y	0	0	0
RCRA CORRACTS	Y	0	0	0
RCRA TSD	Y	0	0	0
RCRA LQG	Y	0	0	0
RCRA SQG	Y	0	0	0
RCRA VSQG	Y	0	0	0
RCRA NON GEN	Y	0	0	0
RCRA CONTROLS	Y	0	0	0
FED ENG	Y	0	0	0
FED INST	Y	0	0	0
LUCIS	Y	0	0	0
NPL IC	Y	0	0	0
ERNS 1982 TO 1986	Y	0	0	0
ERNS 1987 TO 1989	Y	0	0	0
ERNS	Y	0	0	0
FED BROWNFIELDS	Y	0	0	0
FEMA UST	Y	0	0	0

Database	Searched	Project Property	Within 0.250mi	Total
FRP	Y	0	0	0
DELISTED FRP	Y	0	0	0
HIST GAS STATIONS	Y	0	0	0
REFN	Y	0	0	0
BULK TERMINAL	Y	0	0	0
SEMS LIEN	Y	0	0	0
SUPERFUND ROD	Y	0	0	0
DOE FUSRAP	Y	0	0	0
State				
SSU	Y	0	0	0
DELISTED SSU	Y	0	0	0
SWF/LF	Y	0	0	0
SWF/LF SPECIAL	Y	0	0	0
NIPC	Y	0	0	0
CCDD	Y	0	0	0
LUST	Y	0	0	0
LUST DOCUMENT	Y	0	0	0
DELISTED LUST	Y	0	0	0
LUST TRUST	Y	0	0	0
UST	Y	0	0	0
AST	Y	0	0	0
DELISTED TANK	Y	0	0	0
ENG	Y	0	0	0
INST	Y	0	0	0
AUL	Y	0	0	0
SRP	Y	0	0	0
REM ASSESS	Y	0	0	0
BROWNFIELDS	Y	0	0	0
BROWN MBRGP	Y	0	0	0
Tribal				
INDIAN LUST	Y	0	0	0
INDIAN UST	Y	0	0	0
DELISTED INDIAN LST	Y	0	0	0
DELISTED INDIAN UST	Y	0	0	0
County	***No County databases were selected to be included in the search.***			

Additional Environmental Records

Database	Searched	Project Property	Within 0.250mi	Total
Federal				
PFAS GHG	Y	0	0	0
OSC RESPONSE	Y	0	0	0
FINDS/FRS	Y	0	**3**	**3**
TRIS	Y	0	0	0
HMIRS	Y	0	0	0
NCDL	Y	0	0	0
TSCA	Y	0	0	0
HIST TSCA	Y	0	0	0
FTTS ADMIN	Y	0	0	0
FTTS INSP	Y	0	0	0
PRP	Y	0	0	0
SCRD DRYCLEANER	Y	0	0	0
ICIS	Y	0	**1**	**1**
FED DRYCLEANERS	Y	0	0	0
DELISTED FED DRY	Y	0	0	0
FUDS	Y	0	0	0
FUDS MRS	Y	0	0	0
FORMER NIKE	Y	0	0	0
PIPELINE INCIDENT	Y	0	0	0
MLTS	Y	0	0	0
HIST MLTS	Y	0	0	0
MINES	Y	0	0	0
SMCRA	Y	0	0	0
MRDS	Y	0	0	0
LM SITES	Y	0	0	0
ALT FUELS	Y	0	0	0
CONSENT DECREES	Y	0	0	0
AFS	Y	0	0	0
SSTS	Y	0	0	0
PCBT	Y	0	0	0
PCB	Y	0	0	0
State				
SPILLS	Y	0	0	0
SPILL OER	Y	0	0	0
DRYCLEANERS	Y	0	0	0
DELISTED DRYCLEANERS	Y	0	0	0
IEPA DOCS	Y	0	0	0
CDL	Y	0	0	0
TIER 2	Y	0	0	0

Database	Searched	Project Property	Within 0.250mi	Total
AIR PERMITS	Y	0	0	0
UIC	Y	0	0	0
MEDICAL WASTE	Y	0	0	0
COMPOST	Y	0	0	0

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Total:	*0*	***4***	***4***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	FINDS/FRS	OSWEGO, VILLAGE OF	340 MADISON ST OSWEGO IL 60173 ***Registry ID:*** 110018185532	NNW	0.13 / 690.95	2	14
2	FINDS/FRS	DT OSWEGO	340 S. MADISON STREET OSWEGO, IL 60543 ***Registry ID:*** 110028076891	NW	0.15 / 770.11	3	14
2	ICIS	DT OSWEGO	340 S. MADISON STREET OSWEGO, IL 60543 ***Registry ID:*** 110028076891	NW	0.15 / 770.11	3	15
3	FINDS/FRS	CORNER CAFF	4581 ST. RT. 71 OSWEGO IL 60543 ***Registry ID:*** 110070280336	E	0.19 / 981.29	10	16

Executive Summary: Summary by Data Source

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Apr 26, 2024 has found that there are 3 FINDS/FRS site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
OSWEGO, VILLAGE OF	340 MADISON ST OSWEGO IL 60173 ***Registry ID**: 110018185532*	NNW	0.13 / 690.95	1
DT OSWEGO	340 S. MADISON STREET OSWEGO, IL 60543 ***Registry ID**: 110028076891*	NW	0.15 / 770.11	2
CORNER CAFF	4581 ST. RT. 71 OSWEGO IL 60543 ***Registry ID**: 110070280336*	E	0.19 / 981.29	3

ICIS - Integrated Compliance Information System (ICIS)

A search of the ICIS database, dated Apr 13, 2024 has found that there are 1 ICIS site(s) within approximately 0.02 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
DT OSWEGO	340 S. MADISON STREET OSWEGO, IL 60543 ***Registry ID**: 110028076891*	NW	0.15 / 770.11	2

Map: 0.25 Mile Radius

Order Number: 24100900475

Address: 41.6769348290875, -88.35365634000594, Oswego, IL

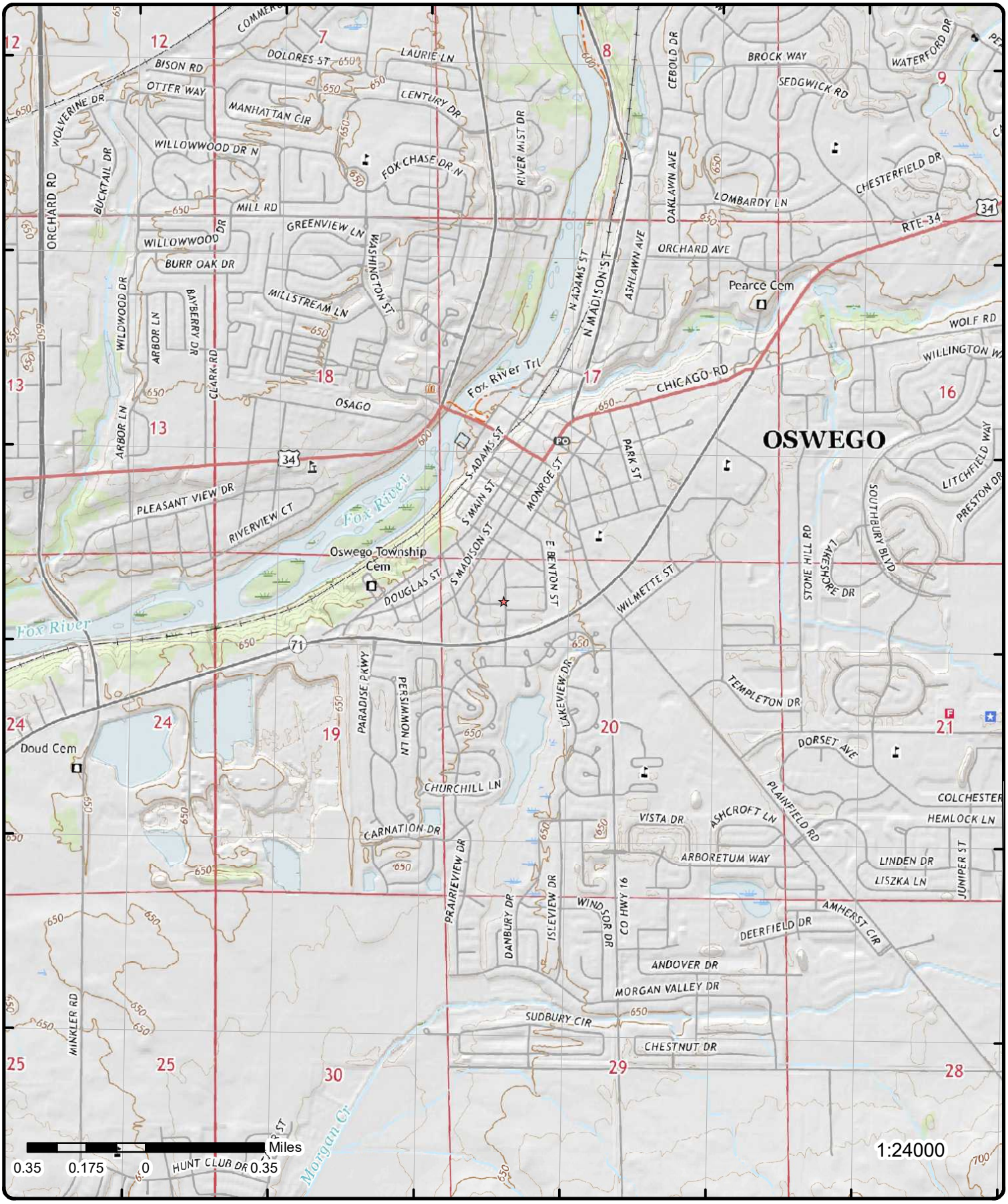
- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Aerial **Year: 2023**

Order Number: 24100900475

Address: 41.6769348290875, -88.35365634000594, Oswego, IL

Source: ESRI World Imagery



Topographic Map

Year: 2021

Order Number: 24100900475

Address: 41.6769348290875, -88.35365634000594, IL

Quadrangle(s): Aurora South IL

Source: USGS Topographic Map

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 1	NNW	0.13 / 690.95	639.65 / 2	OSWEGO, VILLAGE OF 340 MADISON ST OSWEGO IL 60173	FINDS/FRS

Registry ID: 110018185532
FIPS Code: 17093
HUC Code: 07120007
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 19-OCT-04
Update Date: 29-DEC-14
Interest Types: STATE MASTER
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: FRS-GEOCODE
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 14
Census Block Code: 170938901022028
EPA Region Code: 05
County Name: KENDALL
US/Mexico Border Ind:
Latitude: 41.67872
Longitude: -88.35511
Reference Point: CENTER OF A FACILITY OR STATION
Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value: 30
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110018185532
Data Source: Facility Registry Service - Single File
Program Acronyms:

ACES:170000622903

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of 2	NW	0.15 / 770.11	640.52 / 3	DT OSWEGO 340 S. MADISON STREET OSWEGO, IL 60543	FINDS/FRS

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Registry ID:	110028076891
FIPS Code:	
HUC Code:	07120007
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	16-FEB-07
Update Date:	03-MAY-15
Interest Types:	FORMAL ENFORCEMENT ACTION
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	FRS-GEOCODE
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	14
Census Block Code:	170938901022028
EPA Region Code:	05
County Name:	KENDALL
US/Mexico Border Ind:	
Latitude:	41.67872
Longitude:	-88.35511
Reference Point:	CENTER OF A FACILITY OR STATION
Coord Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:	30
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110028076891
Data Source:	Facility Registry Service - Single File
Program Acronyms:	

ICIS:7377696

2	2 of 2	NW	0.15 / 770.11	640.52 / 3	**DT OSWEGO** **340 S. MADISON STREET** **OSWEGO, IL 60543**	ICIS

EPA Region:	05	**Federal Fac ID:**	
Registry ID:	110028076891	**Tribal Land Code:**	
Pgm Sys ID:	7377696	**County:**	KENDALL
Pgm Sys Acrnm:	ICIS	**Latitude 83:**	41.67872
Permit Type:		**Longitude 83:**	-88.35511

Details

Interest Type:	FORMAL ENFORCEMENT ACTION	**Public Ind:**	Yes
Active Status:		**FIPS Code:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Accuracy Value:	30	**HUC 8 Code:**	07120007
Pgm Report URL:	no data yet	**HUC 12:**	
Federal Agency Name:			
Federal Land Ind:			
Fed Facility Code:			
Ref Point Desc:	CENTER OF A FACILITY OR STATION		
Collect Mth Desc:	ADDRESS MATCHING-HOUSE NUMBER		
Fac URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110028076891		
Program URL:			

3	1 of 1	E	0.19 / 981.29	647.23 / 10	CORNER CAFF 4581 ST. RT. 71 OSWEGO IL 60543	FINDS/FRS

Registry ID:	110070280336
FIPS Code:	
HUC Code:	
Site Type Name:	
Location Description:	
Supplemental Location:	
Create Date:	27-SEP-18
Update Date:	
Interest Types:	OSHA ESTABLISHMENT
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	333999
NAICS Code Descriptions:	ALL OTHER MISCELLANEOUS GENERAL PURPOSE MACHINERY MANUFACTURING.
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	05
County Name:	
US/Mexico Border Ind:	
Latitude:	
Longitude:	
Reference Point:	
Coord Collection Method:	
Accuracy Value:	
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070280336
Data Source:	Facility Registry Service - Single File
Program Acronyms:	

OSHA-OIS:339495079

Unplottable Summary

Total: 3 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
FINDS/FRS	IDOT 66013-JAMES CAPE & SONS CO	DOUGLAS RD TO RTE 30	OSWEGO IL	60543	821583140
FINDS/FRS	AVANTERRA-WOLF'S CROSSING	SWC OF WOLF'S CROSSING ROAD & DOUGLAS ROAD	OSWEGO IL	60543	923371248
SPILL OER	VWR SCIENTIFIC	IL-34-->IL-71-->IL-80	BATAVIA-->LA SALLE IL		813050215

Unplottable Report

Site: ***IDOT 66013-JAMES CAPE & SONS CO***
DOUGLAS RD TO RTE 30 OSWEGO IL 60543

FINDS/FRS

Registry ID:	110058388837
FIPS Code:	17093
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	21-APR-14
Update Date:	
Interest Types:	STATE MASTER
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	05
County Name:	KENDALL
US/Mexico Border Ind:	
Latitude:	
Longitude:	
Reference Point:	
Coord Collection Method:	
Accuracy Value:	
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110058388837
Data Source:	Facility Registry Service - Single File
Program Acronyms:	

ACES:170002032672

Site: ***AVANTERRA-WOLF'S CROSSING***
SWC OF WOLF'S CROSSING ROAD & DOUGLAS ROAD OSWEGO IL 60543

FINDS/FRS

Registry ID:	110071658933
FIPS Code:	
HUC Code:	07120007
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	11-MAR-24
Update Date:	
Interest Types:	ICIS-NPDES NON-MAJOR, STORM WATER CONSTRUCTION
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	ICIS
Federal Facility Code:	
Federal Agency Name:	

Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 14
Census Block Code: 170938901023000
EPA Region Code: 05
County Name:
US/Mexico Border Ind:
Latitude: 41.6895
Longitude: -88.3127
Reference Point:
Coord Collection Method: INTERPOLATION-MAP
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110071658933
Data Source: Facility Registry Service - Single File
Program Acronyms:

NPDES:ILR10ZB1H

Site: ***VWR SCIENTIFIC***
IL-34-->IL-71-->IL-80 BATAVIA-->LA SALLE IL

SPILL OER

Incident ID: NL850063
Received Date: 1/24/1985
Action:
Action Description:

Occured Date:
Incident LUST:
Incident County: KENDALL

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

National Priority List - Proposed: PROPOSED NPL

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

SEMS List 8R Active Site Inventory: SEMS

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the EPA's Facility Registry Service map tool.

Government Publication Date: May 22, 2024

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

SEMS List 8R Archive Sites: SEMS ARCHIVE

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: May 22, 2024

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Apr 8, 2024

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites that have indicated engagement in the treatment, storage, or disposal of hazardous waste which requires a RCRA hazardous waste permit.

Government Publication Date: Apr 8, 2024

RCRA Generator List: RCRA LQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Apr 8, 2024

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Apr 8, 2024

RCRA Non-Generators: RCRA NON GEN

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Apr 8, 2024

Federal Engineering Controls-ECs: FED ENG

List of Engineering controls (ECs) made availabe by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Federal Institutional Controls- ICs: FED INST

List of Institutional controls (ICs) made available by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Apr 22, 2024

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Apr 28, 2024

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Feb 7, 2024

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: Jan 9, 2024

Delisted Facility Response Plans: DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Jan 9, 2024

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

This list of petroleum refineries is sourced from the U.S. Energy Information Administration (EIA), Refinery Capacity Report. The listing includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year. The geographic area the report covers is the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, and other U.S. possessions. Per the EIA, the facility location data represents the approximate location based on research of publicly available information from sources such as Federal agencies, company websites, and satellite images on public websites.

Government Publication Date: Jun 6, 2024

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

A list of petroleum product and crude oil rail terminals from the U.S. Energy Information Administration (EIA), as well as petroleum terminals sourced from the Federal Communications Commission Data hosted by the Homeland Infrastructure Foundation-Level Database. Data includes operable bulk petroleum product terminals with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil with activity between 2017 and 2018. EIA petroleum product terminal data comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings.

Government Publication Date: Jun 6, 2024

LIEN on Property: SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: May 22, 2024

Superfund Decision Documents: SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Mar 27, 2024

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

State

State Response Action Program Database: SSU

The State Response Action Program database identifies the status of all sites under the responsibility of the Illinois EPA's State Sites Unit. The State Response Action Program database made available by Illinois Environmental Protection Agency. This database is state equivalent CERCLIS.

Government Publication Date: Aug 3, 2023

Delisted State Response Action Program: DELISTED SSU

List of sites removed from the State Response Action Program database identifies the status of all sites under the responsibility of the Illinois EPA's State Sites Unit.

Government Publication Date: Aug 3, 2023

Solid Waste Landfills Subject to State Surcharge Database: SWF/LF

The Bureau of Land maintains a list of solid waste facilities and landfills throughout the state. This list made available by Illinois Environmental Protection Agency's Bureau of land.

Government Publication Date: Jun 24, 2024

Special Waste Site List: SWF/LF SPECIAL

The following landfills are those that as of January 1, 1990, accept non-hazardous special waste pursuant to the Illinois Environmental Protection Agency Non-Hazardous Special Waste Definition. List A includes landfills that may receive any non-hazardous waste. Non-Regional Pollutant Control Facilities are so noted. List B includes landfills designed to receive specific non-hazardous wastes. List B landfills are designated as a Regional Pollutant Control Facility by RPCF, or Non-regional Pollutant Control Facility by Non-RPCF.

Government Publication Date: Jan 1, 1990

Northeastern Illinois Planning Commission Historical Inventory of Solid Waste Disposal Sites in Northeastern Illinois: NIPC

Historical inventory of solid waste disposal sites in northeastern Illinois prepared by the Northeastern Illinois Planning Commission (NIPC).

Government Publication Date: Dec 1987

Clean Construction or Demolition Debris: CCDD

This is a list of CCDD Fill Operations with Approved Permits. Beginning July 1, 2008, no person can use CCDD as fill material in a current or former quarry, mine, or other excavation unless they have obtained a permit from the Illinois EPA.

Government Publication Date: Oct 3, 2023

Leaking Underground Storage Tanks (LUST): LUST

Leaking underground storage tanks (LUSTs) are a significant source of environmental contamination and may pose threats to human health and safety. The Illinois Office of the State Fire Marshal (OSFM) regulates the daily operation and maintenance of UST systems. When a release occurs, a tank owner, operator, or their designated representative, must notify the Illinois Emergency Management Agency (IEMA), which then notifies the Illinois Environmental Protection Agency (Illinois EPA). The Illinois EPA's LUST Section begins oversight of remedial activities only after the UST release has been reported to the IEMA.

Government Publication Date: Jul 15, 2024

Leaking UST Document: LUST DOCUMENT

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more of the documents is in the Leaking Underground Storage Tank (LUST) category. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Apr 23, 2024

Delisted Leaking Underground Storage Tank Sites: DELISTED LUST

List of sites removed from the Leaking Underground Storage Tank Incident Tracking (LIT) database made available by the Illinois Environmental Protection Agency.

Government Publication Date: Jul 15, 2024

Underground Storage Tank Fund Payment Priority List: LUST TRUST

In case sufficient funds are not available in the Underground Storage Tank Fund, requests for payment are entered on the Payment Priority List by "queue date" order. As required by the Environmental Protection Act, the queue date is the date that a complete request for partial or final payment was received by the Agency. The queue date is "officially" confirmed at the end of the payment review process when a Final Decision Letter is sent to the site owner. The Underground Storage Tank Fund Priority list made available by Illinois Environmental Protection Agency.

Government Publication Date: Nov 01, 2016

Underground Storage Tank Database (UST): UST

This Underground Storage Tank (UST) database is maintained by the Division of Petroleum & Chemical Safety of the Office of the Illinois State Fire Marshal (OSFM). Agency Disclaimer: The data contains information derived from tank registration information supplied to the OSFM from outside sources. This information may not contain complete or current information on a specific tank.

Government Publication Date: Jul 15, 2024

Aboveground Storage Tanks (AST): AST

A list of aboveground storage tanks inspected by the Office of State Fire Marshal (OSFM).

Government Publication Date: Jun 18, 2024

Delisted Storage Tanks: DELISTED TANK

This database contains a list of closed storage tank sites that were removed from the illinois Department of Enivornmental Quality.

Government Publication Date: Jul 15, 2024

Sites with Engineering Controls: ENG

Sites in the Illinois Environmental Protection Agency (IEPA)'s Site Remedition Program (SRP) database with engineering controls in place.

Government Publication Date: Jul 17, 2024

Institutional Controls: INST

Sites in the Illinois Environmental Protection Agency (IEPA)'s Site Remedition Program (SRP) database with institutional controls in place.

Government Publication Date: Jul 17, 2024

Environmental Covenants Registry: AUL

According to the Illinois Environmental Protection Agency (Illinois EPA), the Illinois Uniform Environmental Covenants Act (UECA) (765 Illinois Compiled Statues (ILCS) 122 et seq.) creates an environmental covenant that is a specific recordable interest in real estate. It arises from an environmental response project that imposes activity and use limitations on a property. No environmental covenant is effective without the approval of the Illinois EPA, through the Director's signature. The UECA instrument recites the property use controls and remediation requirements imposed upon the property. Section 12(a) of the Illinois UECA requires the Illinois EPA to establish and maintain a registry that contains all environmental covenants and any amendment or termination of those covenants.

Government Publication Date: Aug 1, 2023

Illinois Site Remediation Program Database: SRP

The Site Remediation Program (SRP) database identifies the status of all voluntary remediation projects administered through the Pre-Notice Site Cleanup Program (1989 to 1995) and the Site Remediation Program (1996 to the present). This Site Remediation program database made available by Illinois Environmental Protection Agency.

Government Publication Date: Jul 17, 2024

Document Explorer Remediation and Assessment Sites: REM ASSESS

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more documents available are associated with the Federal Facilities Unit, National Priorities List Unit, Site Assessment Unit, or Voluntary Site Remediation Unit. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Apr 23, 2024

Brownfields Redevelopment Assessment Database: BROWNFIELDS

The Office of Site Evaluations Redevelopment Assessment database identifies the status of properties within the State in which the Illinois EPA's Office of Site Evaluation has conducted a Municipal Brownfields Redevelopment Grant (MBRG) project.

Government Publication Date: Nov 21, 2022

Municipal Brownfields Redevelopment Grant Program (MBRGP) project sites administered through OBA: BROWN MBRGP

The Office of Brownfields Assistance (OBA) database identifies the status of all Municipal Brownfields Redevelopment Grant Program (MBRGP) project sites administered through OBA. Office of Brownfields Assistance Database search made available by Illinois Environmental Protection Agency's Bureau of Land Data-Center.

Government Publication Date: Mar 31, 2013

Tribal

Leaking Underground Storage Tanks on Indian Lands: INDIAN LUST

This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 5, which includes Illinois, is made available by the United States Environmental Protection Agency (EPA). There are no federally recognized Tribes in Illinois, according to the U.S. Department of Interior, Bureau of Indian Affairs.

Government Publication Date: Oct 16, 2017

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST

This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 5, which includes Illinois, is made available by the United States Environmental Protection Agency (EPA). There are no federally recognized Tribes in Illinois, according to the U.S. Department of Interior, Bureau of Indian Affairs.

Government Publication Date: Oct 16, 2017

Delisted Tribal Leaking Storage Tanks: DELISTED INDIAN LST

Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

Delisted Tribal Underground Storage Tanks: DELISTED INDIAN UST

Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

County

No County databases were selected to be included in the search.

Additional Environmental Record Sources

Federal

PFAS Greenhouse Gas Emissions Data: PFAS GHG

The U.S. Environmental Protection Agency's Greenhouse Gas Reporting Program (GHGRP) collects Greenhouse Gas (GHG) data from large emitting facilities (25,000 metric tons of carbon dioxide equivalent (CO2e) per year), and suppliers of fossil fuels and industrial gases that results in GHG emissions when used. Includes GHG emissions data for facilities that emit or have emitted since 2010 chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures by DSSTox. PFAS emissions data has been identified for facilities engaged in the following industrial processes: Aluminum Production (GHGRP Subpart F), HCFC-22 Production and HFC-23 Destruction (Subpart O), Electronics Manufacturing (Subpart I), Fluorinated Gas Production (Subpart L), Magnesium Production (Subpart T), Electrical Transmission and Distribution Equipment Use (Subpart DD), and Manufacture of Electric Transmission and Distribution Equipment (Subpart SS). Over time, other industrial processes with required GHGRP reporting may include PFAS emissions data and the list of reportable gases may change over time.

Government Publication Date: Aug 5, 2024

On-Scene Coordinator Response Sites: OSC RESPONSE

This list of On-Scene Coordinator (OSC) Response Sites is provided by the U.S. Environmental Protection Agency (EPA). OSCs are the federal officials responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government. OSCs coordinate all federal efforts with, and provide support and information to local, state, and regional response communities. An OSC is an agent of either EPA or the U.S. Coast Guard (USCG), depending on where the incident occurs. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters. USCG OSCs have responsibility for coastal waters and the Great Lakes. In general, an OSC has the following key responsibilities during and after a response: Assessment, Monitoring, Response Assistance, and Evaluation.

Government Publication Date: Apr 4, 2024

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Apr 26, 2024

Toxics Release Inventory (TRI) Program: TRIS

The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment. This database includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

Hazardous Materials Information Reporting System: HMIRS

The Hazardous Materials Incident Reporting System (HMIRS) database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Government Publication Date: May 29, 2024

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Nov 30, 2023

Toxic Substances Control Act: TSCA

The U.S. Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule. The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI). EPA CDR collections occur approximately every four years and reporting requirements change per collection.

Government Publication Date: May 12, 2022

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

Government Publication Date: Jul 24, 2024

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) database contains integrated enforcement and compliance information across most of U.S. Environmental Protection Agency's (EPA) programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained by the EPA Headquarters and at the Regional offices. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities that support compliance and enforcement programs, including incident tracking, compliance assistance, and compliance monitoring.

Government Publication Date: Apr 13, 2024

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. The EPA tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 5, 2024

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 5, 2024

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset which applies to the Fiscal Year 2021 FUDS Inventory.

Government Publication Date: May 15, 2023

FUDS Munitions Response Sites: FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: May 15, 2023

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

This list of flagged pipeline incidents is made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types. Accidents reported on hazardous liquid gravity lines (§195.13) and reporting-regulated-only hazardous liquid gathering lines (§195.15) and incidents reported on Type R gas gathering (§192.8(c)) are not included in the flagged incident file data.

Government Publication Date: May 6, 2024

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) is provided by the United States Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: Feb 5, 2024

Surface Mining Control and Reclamation Act Sites: SMCRA

This inventory of land and water impacted by past mining (primarily legacy coal mining operations) is maintained by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE), as it provides information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This inventory contains information on the type and extent of Abandoned Mine Land (AML) Problems, as well as information on the cost associated with the reclamation of those problems. The data is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed. Disclaimer: Per the OSMRE, States and tribes who enter their data into e-AMLIS (AML Inventory System) may truncate their latitude and longitude so the precise location of usually dangerous AMLs is not revealed in an effort to protect the public from searching for these AMLs, most of which are on private property. If more precise location information is needed, please contact the applicable state/tribe of interest.

Government Publication Date: May 20, 2024

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites: LM SITES

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Tile II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 12, 2023

Alternative Fueling Stations: ALT FUELS

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Aug 29, 2024

Superfunds Consent Decrees: CONSENT DECREES

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Cases filed since 2010 limited to the following: Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS); and applicable ENRD's Environmental Defense Section (EDS) CERCLA Cases with "Consent" in History Note. CMS may not reflect the latest developments in a case, nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Jun 26, 2024

Air Facility System: AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments: SSTS

This national list of active EPA-registered foreign and domestic pesticide and/or device-producing establishments is based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that each producing establishment must place its EPA establishment number on the label or immediate container of each pesticide, active ingredient or device produced. An EPA establishment number on a pesticide product label identifies the EPA registered location where the product was produced. The list of establishments is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Feb 29, 2024

Polychlorinated Biphenyl (PCB) Transformers: PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: May 23, 2024

State

Spills and Incidents: SPILLS

A list of reports taken by Illinois Emergency Management Agency (IEMA) of Hazardous Material spills in Illinois.

Government Publication Date: May 8, 2024

Emergency Response Releases & Spills Database: SPILL OER

The Office of Emergency Response (OER) maintains the Emergency Response Releases & Spills Database.
The Emergency Operations Unit, within OER, coordinates Illinois EPA's response to environmental emergencies involving oil or hazardous materials and ensures that any environmental contamination is cleaned up. EOU works with other response agencies including the Illinois Emergency Management Agency (IEMA), which is the initial contact for responses to an emergency or disaster in Illinois.

Government Publication Date: May 8, 2024

Dry Cleaning Facilities: DRYCLEANERS

This list of licensed drycleaner facilities is provided by the Drycleaner Environmental Response Trust Fund of Illinois; and since July 1, 2020, is administrated by Illinois Environmental Protection Agency (IEPA).

Government Publication Date: Jul 2, 2024

Delisted Drycleaners: DELISTED DRYCLEANERS

List of sites removed from the drycleaners database made available by the Drycleaner Environmental Response Trust Fund of Illinois.

Government Publication Date: Jul 2, 2024

IEPA Document Explorer: IEPA DOCS

A list of permits and documents found in the Illinois Environmental Protection Agency (IEPA) Document Explorer. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are available in a digital format. This list includes records not otherwise categorized as LUST, Remediation, Air Permits, NPDES, or Compliance Commitment Agreements.

Government Publication Date: Apr 23, 2024

Clandestine Drug Labs: CDL

List of clandestine drug lab locations made available by the Illinois Department of Public Health. The Department maintains a list of properties from reports it receives from the Illinois State Police through the Illinois Emergency Management Agency.

Government Publication Date: Jan 4, 2023

Tier 2 Report: TIER 2

List of facilities who submit Tier II forms to the Illinois Emergency Management Agency (IEMA).

Government Publication Date: May 10, 2023

Air Permits: AIR PERMITS

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more of the documents is in the Air Permits (construction and operating) category. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Apr 23, 2024

Underground Injection Control Wells: UIC

The Underground Injection Control (UIC) Program is a federal program established under the provision of the Safe Drinking Water Act of 1974. Since groundwater is a major source of drinking water in the United States, the UIC Program requirements were designed to prevent contamination of groundwater resulting from the operation of injection wells. The Underground Injection Well Inventory is provided by the Illinois Environmental Protection Agency. This inventory includes Class V Injections Wells which are utilized to inject non-hazardous waste into or above the Underground Source of Drinking Water.

Government Publication Date: Aug 1, 2019

Potentially Infectious Medical Waste Facilities: MEDICAL WASTE

Title 35 of the Illinois Administrative Code defines Potentially Infectious Medical Waste (PIMW) as waste generated in connection with the diagnosis, treatment (i.e., provision of medical services), or immunization of human beings or animals; research pertaining to the provision of medical services; or the provision or testing of biologicals. The Illinois Environmental Protection Agency's Bureau of Land is responsible for administering the PIMW program. The facilities included on this listing treat, store, transfer or dispose of PIMW.

Government Publication Date: Jun 6, 2023

Compost Facilities: COMPOST

The Illinois Environmental Protection Agency's Bureau of Land, Materials Management Unit maintains this list of composting facilities. Composting facilities provide an alternative option to managing and disposing of non-hazardous solid waste and/or landscape waste instead of the waste being landfilled. It is a natural form of recycling that turns some common kinds of household waste, like food and lawn wastes, into a dark organic material that can be used in a variety of beneficial ways.

Government Publication Date: Dec 1, 2023

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.